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Meeting Transcript  
December 8, 2005

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WELCOME AND ANNOUNCEMENTS

CHAIRMAN PELLEGRINO: Good morning, and I welcome the Council members to the 22nd Public Meeting of the President's Council on Bioethics.

I want to recognize the presence of Dick Roblin, the Designated Federal Officer — Dick is over here — in whose presence this is a legally constituted meeting.

I think it most fitting to begin this session by expressing my personal gratitude, as well as the gratitude of the Council and the public, to Dr. Leon Kass, who is the outgoing Chairman of this Council. He has been Chairman since the Council's beginning. We are all indebted to him for the intellectual setting, the wisdom, and the practical good sense he has brought to his assignment.
Together with the Council he has produced a series of adamantly clear, helpful, and practical reports on some of the most significant ethical problems and issues facing us as individuals and as members of American and world society.

It is with diffidence, therefore, that I have accepted the invitation to succeed Dr. Kass as Chairman. My hope and my intention is, with the participation of the Council members, to maintain as closely as possible the high standards set by Dr. Kass and, thus, to serve the purposes of this Council as an instrument for the systematic and orderly inquiry and debate into the complex issues facing humanity in the field of bioethics today.

I hope that we can maintain the high standard of intellectual inquiry, public responsibility, and prudent judgment that the intersections of science and wisdom and ethics demand in our time.

**SESSION 1: BIOETHICS AND AMERICAN CHILDREN**

In today's discussion, we enter a new field of inquiry for the Council — the ethical and bioethical issues involved in the care of infants, children, and young adults. They are, as has so often been said, the future of our nation and the world. They will confront the problems and the promise of biotechnology and social change.

We can scarcely imagine today what the nature of those problems and challenges and potentialities will be. Certainly, they will involve such things as the uses of psychotrophic agents in children, questions of human experimentation and clinical trials, issues of consent, assent, and surrogate decisionmaking, as well as end-of-life decisions, attitudes and values toward the disabled and the handicapped, the questions of priority and the allocation of resources on the basis of age and development, decisions of the utmost significance during intrauterine and neonatal life, epidemic obesity, universal vaccination, genetic testing. The list goes far beyond anything we can fully envision at this time.

We have invited speakers whose expertise includes many of the areas that I've mentioned, and many others they will bring to our attention. We have asked them to be free to look at the issues as individuals, from their own point of view, from their expertise, and from their experience.

The second item, which we will discuss tomorrow, is a staff paper on the subject of human dignity, a concept which is much used and much abused in the bioethics literature today. It has been used repeatedly by the Council itself, and we thought it wise perhaps to reflect on some of the dimensions of this concept.

Before we begin, let me ask if you will express your appreciation to Dr. Kass. He happily will be with us as a member of the Council, and we will have continued access to his wisdom and his intelligence.

Leon, thank you very, very much.

(Applause.)

Our first speaker this morning will be Dr. Norman Fost, who hardly needs any introduction in the field of pediatric ethics. You have a summarization of his career and curriculum vitae, and I will ask him to address us — Norm, there you are. And I have asked him very clearly to tell us what he thinks over the many, many years of his cogitations on this subject we should be addressing and the nation should be addressing.

Norm?

**DR. FOST:** Thanks very much, Ed, for inviting me to this distinguished group.

Dr. Pellegrino's invitation reminded me of the famous exam question, "Discuss the universe and give two examples." I've decided instead to give three examples to be unduly ambitious, and to talk about the three issues of the many that we could talk about that seem to me most pressing.

Through the lens of someone who has been engaged in these issues for 40 years — not as long as Dr. Pellegrino but I'm gaining on you — as a pediatrician, as an investigator, as a human subject, as Chair of an IRB for 28 years, Chair of the Hospital Ethics Committee, someone who has written and taught about these issues and had the opportunity to be involved in federal policy.

And let me say that I think ethics does matter, that Councils and Commissions like this have had a — that there's been a dramatic change. I'm going to try to make the point that there have been dramatic changes in the well being of children as a result of committees and councils and commissions like this, and I think there is the opportunity to have more influence.
I'm going to talk about three issues, two of which will seemingly overlap with other speakers, namely end-of-life decisions, research issues, and issues about genetic screening. But I've talked with all of them, and I think there will be minimal overlap and what they say will sort of pick up where I leave off.

But before I do that, I want to just say a few words about two overriding issues that seem to me to dwarf traditional bioethics concerns with regard to children.

First is the continuing problem of 40-plus million Americans without insurance, a third of them children, somewhere between eight and ten million children without third party coverage, not eligible for Medicaid, who die at a higher rate than others, who suffer, who come into life with burdens, who leave the starting gate with a 200-pound gorilla on their back, whether due to prematurity or single mothers on drugs or lack of access to care.

And this is always mentioned as the most important problem involving children and Americans, but not enough is done about it. It's a big issue, and I'm not going to say any more about it, because it is so complicated. But I hope the Council will take some cognizance of it in a larger context.

Second, I want to just say a few words about child abuse, which is a special interest of mine. I've been director of a child protection team for 35 years, and, here again, it's a problem that affects millions of children.

I mean, there are over a million reports of child abuse in the United States, and we know that that is the tip of the iceberg. Underreporting is somewhere in the five to ten to one range. That is only five to — only 10 to 20 percent of cases get reported.

And in the area of physical abuse alone, we have known for 30 years how to prevent this. Dr. Henry Kempe did a landmark study 35 years ago, showed that we can predict 80 percent of cases of physical child abuse in the delivery room. We know before they go home who these children are.

And in a randomized, controlled study, showed that the simple intervention of lay home visitors, lay people asked to spend an average of five hours a week with these usually single mothers, had dramatic effects in reducing the incidence of physical abuse, permanent disability, and, in some cases, even death.

We are the only country in the world that I know of, certainly one of the few, that does not have routine home visitors. It's considered bizarre in other countries that we allow these children to be born and go home, and nobody checks in, nobody offers to help. It is extraordinary.

But Dr. Kempe's studies have been repeated many times, the effectiveness of home visitors, professional or lay visitors, has been shown in — when done correctly, to have very dramatic effects. In fact, I would say the most important professional thing I've ever done is to have the chance to be involved in starting a nonprofit agency in Madison whose sole purpose is to recruit lay volunteers for home visitors. It has been copied elsewhere around the country, and it has been immensely gratifying.

So, again, it's a huge issue. It affects, logarithmically, more children than the issues that we're going to be talking about. And I hope the Council at some point can take that up. I'd be happy to talk more about it when the occasion arises.

But I will concentrate on the three traditional issues. From a historical perspective, what I'd like to do is say something about how it was when I started out in this field, how it is now, and, in my view, how it should be, because I think things were terrible. I think there have been dramatic changes. But I think there is still work to be done, and I'll suggest what that might be.

So first some comments about withholding and withdrawing life-sustaining treatment, end-of-life decisions in children who are ill and handicapped and in need of medical care. My entrance into bioethics was facilitated by a single patient, a child who has come to be known as the Hopkins Mongol case, in the language of the day, a newborn with Down's Syndrome and duodenal atresia, intestinal obstruction of a kind that's very easily fixed in a simple operation that has virtually 100 percent success rate.

This was in 1971 when I was in my second year as Chief Resident at Hopkins. The parents typically did not want surgery done. It was withheld, an NPO signed, "Nothing by Mouth" was put on the child's crib, and he was put into a room by himself and allowed to die of dehydration over a 15-day period.
With the help of the Kennedy Foundation, we made a movie of that case. That has been seen by more than a million people, and became the centerpiece of a symposium at the Kennedy Center in Washington. That was one of the first cases to bring bioethics into the public sphere. It was one of the first widely-publicized cases that attracted, appropriately, public scrutiny and discussion.

I went to the record room at Hopkins at the time and found six other cases of the identical situation — that is, children with Down’s Syndrome and duodenal atresia who had been allowed to die. In fact, a case just about three years before that had been taken to court by Dr. Robert E. Cooke, the Chair of Pediatrics, to try to get court intervention, without success. The court said that the parents had the right to make that decision.

Shortly after that case and the publicity surrounding it, a national survey was done of pediatricians and pediatric surgeons, and 70 percent of them agreed with what was done in that case. That is, 70 percent of American pediatricians polled said that, if confronted with the same case, they would defer to the parents’ wishes. They would not go to court. They would not seek to override the parents.

A similar survey was done in Massachusetts and produced the identical result; 70 percent of pediatricians in Massachusetts said they thought it was — what the parents had asked for was okay, and they would go along with it.

An article was published in *The New England Journal* by one of my teachers at Yale, Dr. Raymond Duff, reporting that one in five deaths at the Yale New Haven nursery over a two-year period was due to withholding of standard medical treatment. This included children with Down’s Syndrome and other relatively modest handicaps or disabilities, and children with profound disabilities who had little prospects for a long or meaningful life.

And in the last paragraph of that article Dr. Duff said, "If what we did is illegal, then that shows that the law needs to be changed."

The world 30 years later is dramatically different, I think in part as a result of the work of a prior Presidential Commission on Bioethics, work by the American Academy of Pediatrics, scholars in the field, and so on. There has been a complete reversal of this situation.

The turning point came in the mid-1980s when President Reagan implemented so-called Baby Doe regulations that prohibited discrimination on the basis of handicap. And to the best of my knowledge, since 1985, there has not been a single case of a child who has — with Down's Syndrome or spina bifida, the other common malformation, who has died due to withholding of standard care simply on the basis of having Down’s Syndrome or spina bifida.

Needless to say, such children sometimes die, and sometimes due to withholding of treatment, but because of some profound, often untreatable, illness, not because they have Down's Syndrome.

So it has been a dramatic change. The status of children with disabilities and the medical treatment that they receive is 180 degrees different from what it was 30 years ago, and even 20 years ago. But this long history of undertreatment, of inappropriate, and I think what is now widely agreed to be inappropriate withholding of treatment in such children, has been replaced by what many of us consider overtreatment.

That is, there was a rebound effect from the Baby Doe regulations. Dr. Kopelman, one of the later speakers, has written eloquently about this, and what we have now is a country in which children receive treatment regardless of whether it serves any interest of theirs, children who have little or no prospects for a meaningful or long life, but suffer in intensive care units or in intensive care units in their homes, in part as a result of fear of legal repercussions, in part due to what I consider misinterpretation of the famous or infamous Baby Doe regulations.

Dr. Nelson I know will be saying a lot more about this subject, but I think work is needed, and I hope the Council will contribute to this discussion about finding a middle ground. One of the causes of the transformation in this area is not just the Baby Doe regulations, but the growth of hospital ethics committees, infant care review committees as they were called at the time, which introduced for the first time almost obligatory multidisciplinary/multidimensional discussions in end-of-life decisions, not just for children but for all hospital patients.

As you know, these committees are now required by the Joint Commission on Accreditation of Hospitals, and it’s my view there has been a dramatic change in just the process by which these end-of-life decisions are made. So the debate is over a much narrower ground of cases, a much narrower band of cases.
But in my view, there still is undue overtreatment, and it is now very difficult in many parts of our country for a child to die when there's widespread agreement that that would be in that child's interest. Dr. Nelson will be saying much more about that.

Second, I'd like to say something about research, and start again with personal experience. In the 1960s, a local reporter at WABC in New York, WABC TV in New York named Gerald Rivers lurched into national prominence with a sensational series of reports of alleged abuses of profoundly retarded children at the Willowbrook Hospital in Long Island, a state institution for the profoundly retarded.

Newly-admitted children to Willowbrook, he discovered, were deliberately infected with the Hepatitis virus using fecal extracts from other children in the institution. The reporter soon acquired a new name to better fit his celebrity status. Gerald Rivers became Geraldo Rivera, which is perhaps the most serious legacy of Willowbrook.

(Laughter.)

It's beside the point that Willowbrook, in my view, has been badly and consistently misreported over the decades, and was framed by Geraldo Rivera and everybody since as a non-therapeutic research study to learn about the epidemiology of Hepatitis. It was, in fact, intended as an early vaccine study. That is, Dr. Krugman thought what he was doing was trying to prevent the infection of Hepatitis in these children, where it was endemic.

Dr. Krugman was vilified for what were called coercive recruitment techniques and disregard for minimum standards of informed consent. My own view is that the consent procedures used by Dr. Krugman exceeded any in any study I've known since, and this, mind you, was before IRBs existed, before there was any — there were any requirements for research involving human subjects.

One last point in the category of personal disclosures. My senior thesis at Yale involved a study of chromosome breaks in children who had had viral infections, and my source of my patient material were the children at Willowbrook. That is, I found a nurse there who would call me when there was a new outbreak of some viral disease — measles, rubella, or hepatitis.

I would drive down with my little bag, go into the main ward there. The nurse would find an appropriate patient, yank his or her arm through the crib rails, I would draw blood and go back to New Haven and do my studies. No committees, no parents, no consent, no review, no nothing.

Well, I'm not here today to discuss the pros and cons of the Willowbrook studies, Dr. Krugman's or mine. The point is that it was typical of the day — that is, research involving children and most everyone else — was a free for all with no regulations, no oversight, no committees, no review, and usually no standards for consent from everybody — from anybody.

This was standard practice. One of my heroes at Yale, Dr. Robert Cooke, elucidated with his mentor, Daniel Darrow, most of what we know about the role of potassium in the body, in part by taking infants out of orphanages in New Haven, bringing them into a clinical research unit where they were exposed to heat stress.

Meticulous balance studies were done. These studies resulted in what ultimately became WHO electrolyte solution, and Dr. Cooke conservatively estimates he saved several billion lives through this research on a very small number of children, but is just astonished at what he did, looks back with sort of horror that he was able to do that, and has said many times, "If there was just some committee that I had — just any group of people that I had to check this out with, it never would have happened. I could have done the studies on sick patients with very minimal risk."

When I was an intern at Hopkins, one of my fellow interns did a landmark study on hernias in children by taking infants who had been admitted to the hospital for an elective herniorrhaphy the next day. He was interested in the question of whether children with a hernia at one side were at risk for a hernia on the other.

So at midnight when he was done with his regular intern duties, he would pick these children out of their cribs, take them down to the emergency department, inject their abdomens with high opaque, radio-opaque dye, jiggle them around, put on a lead apron on himself, sweet talk an emergency room X-ray tech to take a flat plate of the abdomen, including the gonads, and published a landmark study showing a high incidence of inguinal hernia.

To this day, those parents have no idea who their — that their children had their gonads irradiated
with very primitive X-ray machines.

And, finally, these examples are by the dozens. But just to make the point, Dr. Gross at the Boston Children's Hospital, the Chief of Cardiovascular Surgery there in the 1970s, was interested in the role of the thymus — an immunology poorly understood at the time — and took children who were brought to the OR from elective surgery for congenital heart disease, took out the thymus on some and not others, and did heterologous skin transplants to see what the role of the thymus was in rejection.

The children would come back to the ward with these funny patches on their arms. The nurses didn't know what it was, couldn't answer the parents' questions. Again, no permission from anybody. So we've come a long way.

Three weeks ago Dr. Nelson and I spent a day and a half discussing whether an investigator at the University of Chicago could admit children to a hospital overnight to give them a single injection of a probably harmless drug, and collect a few blood samples. It took one year for this investigator to get permission from his local institution and still required the permission of the Secretary of Health and Human Services. And Dr. Nelson and I were part of a committee to advise the Secretary on that.

So the kinds of egregiously unethical research involving children and everybody else that was done in the 1960s, like starving mongols to death, is ancient history. But just as the undertreatment of handicapped infants has been replaced by overtreatment, in my view the underregulation of research has been replaced by overregulation and disregulation, with severe sanctions against institutions for failure to document compliance with rules, many of which have little or no relationship to protection of human subjects.

Let me just give one example, again, of dozens in the discussion. We could expand on this if you like.

As you all know, Duke University some years ago was shut down by the Office of Human Research Protections for alleged violations in protection of human subjects. There were 25 different categories cited by the Office of Human Research Protection. I'm just going to mention one.

One was the failure to document a quorum in the conduct of the IRB's business. The Chair of the IRB, whom I know well, showed that they had documented a quorum at the beginning of the meetings and used Roberts Rules, which state that a quorum is presumed to exist unless it's challenged by somebody during the meeting.

The leader of the site visit from OHRP said, "No, sir, the common rule — the federal regulations require that all business conducted at the meeting must be approved by a quorum of those of the committee. You had over 100 action items at each committee, and you did not document a quorum, we know that there's a lot of Brownian motion at these committee meetings, people leave to take pages, to go to the bathroom, and what not, and so we have suspended all 2,200 protocols because you have no documentation that a quorum existed.

As a result of that suspension, Duke, and now everybody else, documents a quorum 100 times during a meeting. The minutes from — I'm Chair of our IRB. The minutes of our meetings are 150 single-spaced pages for a three-hour meeting. This is — the quorum rule, of course, is only one of the many things we have to document.

One last anecdote about the quorum rule. OHRP went on to shut down eight consecutive academic medical centers. The University of Wisconsin was ninth on the list. We fully assumed that we would be shut down because we were guilty of all the transgressions, virtually all, that have happened at Duke.

And while we had taken steps to correct them to be in compliance, we knew that if our records were examined that they could show that our 2,000 active protocols also had been approved without documentation of a quorum and many other things for each one.

Miraculously, we were not shut down. We received a commendation letter. And as a result of this, when accreditation of IRBs started, one of the new accreditation agencies asked us to become their beta site, their testing site, since we were held in such high esteem by the federal agency.

We were glad to do this. It gave us a chance at essentially a free look at accreditation. It was literally cost-free. If we flunked, it would be confidential. If we passed, we would be accredited, so it seemed like a no-brainer.

The accreditation manual had 270 items. We had six months to prepare. There was a four-day site
visit. We flunked 70 percent of those items, 70 percent of 270 items. This was an IRB that had received a commendation from the federal authorities.

Let me just mention the quorum rule as an anecdote. We, of course, as a result of the Duke experience had learned to document a quorum 100 times at each meeting for each action item. But the site visitor said, "You haven't documented whether a non-scientific member of the IRB was in the room. The federal rules require that each IRB must have a non-scientific member, somebody whose major expertise is in non-scientific areas."

Well, we had several such members, and so we were quite confident that there always was at least one such person in the room. But the site visitor said, "You haven't documented it. All you've said is that you have a quorum, but how do we know if the quorum included a non-scientific member?"

Well, virtually all our votes are unanimous or unanimous minus one. We just keep talking until we reach consensus. And I asked, "Has there ever in the history of the world been a study which involved humans, a research study, in which the vote was tipped due to the vote of the non-scientific member? Do you know of any such instances?"

Well, of course, nobody knew of such an instance, but that was beside the point. A rule is a rule. As a result of that requirement by that agency, Hopkins, I was told, in one of their IRBs began passing a clipboard around at their IRB meetings where all 24 members signed the clipboard for each of 100 items at the committee — 2,400 signatures at one meeting — to make sure that the non-scientific member and other IRB requirements were met.

This is silly, of course, but if it were just the only example I wouldn't bother you with it. In my view, there are a dozen similar kinds of rules, and the problem is that research which used to be too easy is now too hard. That it is now very difficult to get senior faculty to participate in IRBs.

We had a very valued member storm out of a meeting and quit permanently because of discussions like this, saying, "This is not what I'm here for. I'm happy to donate 150 hours a year of my time at no reimbursement to protect human subjects, but not for this kind of nonsense."

It is harder for investigators, of course. Clinical research is dying in my view, as a field of inquiry. That is, there is a dramatic decline in the number of young American physicians going into this area. If you look at the lead author of New England Journal articles over the last decade, less than 50 percent are now American authors.

If you look at the number of M.D. principal investigators of NIH funding, it is also in almost a straight line decline. Children are the most serious victims of this decline in clinical research. That is, children, unlike adults, are almost always treated with what is euphemistically called innovative therapy.

My colleague Paul Lietman at Hopkins says innovative therapy means if you don't want to learn any — if you promise not to learn anything from what you're doing, you don't have to go through an IRB. Eighty percent of all drugs prescribed for children in America have never been approved or tested for safety or efficacy in children.

And as we know, children are not little adults. History is littered with examples of large numbers of children who have died or suffered because of treatments that were quite okay in adults, but turned out to be toxic and even lethal in children — chloroform, sulfonamides, oxygen given indiscriminately to children for 80 years before anyone asked the question whether there might be a dose-response curve.

Even simple bicarbonate, used as a buffer for patients with acidosis, shown by Dr. Michael Simmons to cause death and profound brain damage in infants with hyaline membrane disease. And on and on.

That is, children need research more than adults. The problem is not that there's too much research in children, or too much unregulated research as went on 30 years ago, but not enough. The problem is that children are now "experimented on" but without — and no systematic way and without any collection of data.

That said, the regulations for research need some refining. Sara Goldkind will say more about this. I just want to mention briefly a couple of elements of the regulations that seem to be problematic and possibly an example of persistent underregulation. Dr. Goldkind will say much more about this.

In my view, the justification for non-therapeutic research on children has never been made. The
brilliant work of the National Commission for the Protection of Human Subjects never really, in my view, made the case for allowing non-therapeutic intrusions into children without children who were incapable of consent.

The argument that was made was a utilitarian one, namely that it's good for children as a class. We wouldn't want to live in a world in which no non-therapeutic research is done on children. And it's good for them to have such studies done with restrictions.

One of the restrictions was it's okay as long as the research is of minimal risk. Realize, of course, that there is no such exception for adults. That is, the utilitarian argument is equally true. We could — knowledge could advance much more efficiently with adults, if it weren't for this pesky consent problem.

If we could do more non-therapeutic research on adults without their consent, we could learn a lot more a lot faster, but this is absolutely taboo and appropriately so, but yet the argument is allowed for children.

The minimal risk rule, defined in the federal rules as the probability and severity of harm, comparable to what would happen on a routine visit to the doctor, is interpreted widely — in a widely and wildly variable way. Published studies have shown that IRB chairs and IRB members interpret this to include everything from venapunctures to non-therapeutic bronchoscopies and small bowel biopsies.

Investigators make the claim either that this is minimal risk in my hands or this is what happens on a routine visit to my office. I do a bronchoscopy on everybody I see. And the variation in IRB acceptance of this kind of argument is quite remarkable.

So more work is needed in this area. Dr. Goldkind may say some more about it, but I think we do not have enough conceptual work or even practical, pragmatic definitions of the minimal risk rule.

The other area that, in my view, needs much more work is the notion of assent. Legally valid informed consent is not possible with young children, and so this term "assent" was invented as a surrogate — the requirement that children at least be told in language that's meaningful to them what is proposed, and essentially that they don’t need to do it if they don't want to.

I don't think this is taken seriously. I think if it were, it's hard to imagine why any seven-year-old would let himself or herself be stuck with a needle if it had no relationship to his or her health care, and they didn't want to do it. Moreover, there has never been an adequate discussion as to why the age of seven is used as a boundary for this requirement.

Three-year-olds know perfectly well what a needle stick is all about. They know perfectly well that they don't want it, for the same reason that adults don't want it, because it's annoying, because it hurts, and they would just rather not do it. But there is no respect for three-year-olds or infants for such invasions.

Well, I don't want to have non-therapeutic research on children stopped, but I think, as I say, conceptual work is needed, and this Council is very qualified to either do that work or facilitate it.

Finally, let me just say a few words about genetic testing, which Dr. Pellegrino referred to, which in my view is the most serious of these three areas that is affecting the most number of children. And, again, I'd like to start with a historical example and a personal experience, and then express my concern about where we are today, and then I'll close.

In 1960, PKU, Phenylketonuria, was known to be an admittedly rare, but a well understood, cause of profound mental retardation. It affects approximately 1 in 10,000 live-born children. The biochemistry of it was fairly well understood. It's due to inability to metabolize an amino acid named phenylalanine, which is ubiquitous in proteins.

It was known that if you could diagnose this early enough and get a child started on a restricted diet that you could ameliorate, and in some cases prevent completely, the profound brain damage that uniformly occurs.

But the test that was available at the time, a urine test, was inconvenient to get. It was obtained at the first well baby visit after the child had been on a normal diet for a while and the horse was out of the barn. That is, by the time children were diagnosed, brain damage had already occurred.

The diet was expensive and unpalatable. Parents had an awful time getting children to cooperate
with it.

There were three breakthroughs in 1960 — the discovery by Dr. Robert Guthrie of a simple test, making it cheap and efficient to diagnose this condition on all newborns on a single drop of blood; second, the development by Mead Johnson of Lofenalac, a low phenylalanine milk that was reasonably affordable and palatable; and, three, the election of John Kennedy.

President Kennedy, because of his profound interest in mental retardation, his family's interest, with Dr. Guthrie formed a so-called PKU lobby and arranged for laws to be passed in all states requiring PKU testing, realizing correctly that doctors in offices would be unlikely to adopt a test for a disease that affected 1 in 10,000 children — something that a pediatrician might never see in his or her entire career. So mandatory newborn screening for PKU became the national policy.

In 1973, I was invited by Dr. Barton Childs to be part of a commission — a committee at the Institute of Medicine to look into the PKU story. This was my first exposure to national policy.

The problem was, it turned out, that the PKU test was the worst test in the history of the world. It had a sensitivity and specificity that have not been matched to the best of my knowledge. That is, the test had a five percent true positive rate. It had a 95 percent false positive rate. That is, a child with a positive test, confirmed by a whole blood assay, had a 20 to 1 chance of being normal.

This was not appreciated for many years. So many normal children, we now know, were started on a restricted diet, and it turned out that a phenylalanine-restricted diet was as harmful, or more harmful, as a diet with excess of phenylalanine. That is, this essential amino acid, when withheld from normal children, resulted in brain damage due to starving of brain cells, and every other cell in the body, because phenylalanine is a part of so many proteins.

So many children — we don't know how many — were made retarded by this program. Some were killed. In fact, kwashiorkor developed in America in the PKU program in children who had profound protein malnutrition because of the restricted diet.

Well, if that happened to a child with PKU, you might say nothing ventured, nothing gained, these children had little to lose. They were — had terrible prognoses anyway. But when this happened in a normal child, it's obviously a major tragedy.

In 1965, the American Academy of Pediatrics sent a letter to the Secretary of DHHS urging that the mandatory PKU screening programs be stopped, because we didn't understand the significance of the test, and we didn't know how to regulate the diet.

This letter was suppressed. People were called Luddites who were against newborn screening. The PKU lobbying was very powerful, and testing went on until 1971 when a political scientist named Joseph Cooper uncovered this story through the Freedom of Information Act and led to the appointment of the IOM Committee, whose report was published in 1975 articulating principles for ethically responsible newborn screening, particularly genetic screening or screening for genetic disorders.

These guidelines published by the Institute of Medicine in 1975 have been essentially photocopied by a dozen committees, commissions, councils, professional groups, lay groups. There is virtual unanimity on the principles of responsible genetic screening, and newborn screening in particular.

It is not a controversy, and it represents another marvelous example of the good work of ethics, of thoughtful people and ethics, law, public policy, patients, parents, and so on, agreeing on guidelines. The only problem is that the guidelines are systematically ignored. That is, newborn screening has expanded like topsy, with the same mistakes that beleaguered the PKU program happening over and over again.

That is, numerous screening and treatment programs have been implemented without testing, evaluation of the tests, without any systematic study of the sensitivity, specificity, or predictive value of the test, or of the interventions.

This happens in part because genetic testing and treatment falls outside of the regulations of the FDA. That is, there is no toll gate through which an investigator or an innovator has to go to get these kinds of programs approved. He or she only needs to persuade existing committees and state health departments to simply add another test onto the drop of blood or the drops of blood that now exist for virtually every newborn in America.

I won't take time to rehearse for you other examples of newborn screening gone awry, and the large
number of children in my view who have been killed, normal children in some cases, by screening and treatment programs that have never been adequately evaluated. Not enough research.

The new technologies, such as tandem mass spectrometry, now make it possible to test for hundreds of conditions on this single drop of blood. And, indeed, a committee of the American College of Medical Genetics has persuaded the Secretary's Advisory Committee on Genetic Testing to recommend to the Secretary national implementation of a uniform standard for testing of newborns using tandem mass spectrometry.

These recommendations include over 50 conditions, half of which have no known association with human disease. That is, approximately half of the tests on the committee's recommended list are abnormalities that have been observed whose relationship to clinical manifestations are unknown or uncertain, and the other half roughly involve serious diseases but diseases for which the sensitivity and specificity and predictive value of the test is unknown, and in which the interventions have never been systematically tested.

It is telling, in my view, that the UK equivalent of the FDA has recommended implementation of only one of these 50 conditions. Even worse, multi-array DNA testing — that is, the ability to test for a thousand genetic variations using recombinant DNA techniques on a single drop of blood is also now upon us, and work is proceeding rapidly to add multi-array genetic testing to the newborn PKU spots.

So we now already have many states, including Wisconsin, that does routine testing without consent, without prior research, for dozens of conditions using tandem mass spectrometry. And I predict, unless there is some dramatic change in the way we think about these things, the way we do these things, that multi-array DNA testing will occur within the next few years, as soon as the cost comes down to make it efficient to do it.

This, to me, is a calamity involving every child in America, the amount of mischief. The amount of harm, psychosocial harm that will occur to families and children, not to mention medical harm, is, in my view, going to be quite extensive.

And, worse, 20 years from now we won't know what harm has been done, because in the absence of systematic studies we won't know which children were helped and which were harmed, because we won't know whether like — in the PKU program, we won't know if a positive test meant that that was a child who was destined to become brain damaged or dead, or whether it was a false positive test that had poor predictive value.

In summary, where have we been? Where are we? Where are we going? In the area of end-of-life decisions, there has been a transformation from egregiously unethical undertreatment, withholding of simple treatment from children with excellent prospects for long, happy lives, to serious overtreatment.

A thoughtful kind of undertreatment has been replaced, in my view, by a thoughtless kind of overtreatment. In the area of research, egregiously unethical research with no oversight or regulation has been replaced by too little research, with excessive and inappropriate regulation. The result has been an expansion of innovative therapy, a decline in physician investigators or funds to support them.

And, finally, in the area of genetic screening, the mistakes of the PKU program has resulted in guidelines about which there is little dispute, but practices which have not changed at all and which arguably may become much worse due to the advent of multi-array testing.

I could tell many other stories in all these categories, and there are, of course, other issues that we haven't talked about. But these seem to me worthy of Council's attention.

Thank you for the opportunity to present to you.

CHAIRMAN PELLEGRINO: Thank you very much, Dr. Fost. Dr. Fost is going on 35 years in bioethics. Bioethics itself was invented or baptized in 1972, according to some people. You were there at the beginning. And thank you very, very much for your reflections on pediatrics and pediatric ethics since then.

I'd like to open to Dr. Fost's paper. The members of the Council put on their red light, indicating that they'd like to talk, to save me from being a traffic cop.

Leon?
DR. KASS: Thank you very much for a really lucid and illuminating paper. I have I guess — and I appreciate and feel the force of each of these issues. But if I could draw you out on sort of the — some of the tacit ethical suggestions that you made along the way.

First, the second point on the research issues, you begin by saying the case for non-therapeutic research on children hasn’t been made. You concluded by saying you don’t want this to be shut down, and, therefore, I assume you think the case can be made. And I wonder — on non-utilitarian grounds, I assume, and I wonder if you would — if you have any sort of beginning inklings as to how you could do this.

Our mutual friend Paul Ramsey thought it was impossible to make such a case, and I’m not sure I agree with you that the case hasn’t been made. But if you think that there is a way to make it, I would be interested to hear at least the outline.

And, second, I wonder whether, if we follow your suggestion that there is egregious — well, you didn’t say egregious overtreatment, but that there has been an excess — that there has been a turn in the direction of excess treatment, and I’m not exactly sure how you describe what constitutes the excess.

At one point, you talked about cases in which it would be in the child’s interest to die, and I wonder whether we might, 10 or 15 years from now, if such a formulation were made the standard of care, whether we would say the case — we regret the way in which that case was made. In other words, could — are you able to articulate, for yourself at least, and suggest how we might articulate the principles for deciding that this kind of treatment is really excessive.

The Council has dealt with this with respect to end-of-life issues in the adults, and we’ve, in a way, affirmed the old standards where the treatment is excessively burdensome or where it’s useless.

I take it you might think that there are some treatments that would be efficacious and not excessively burdensome, but that might still be excessive under the present circumstances. I don’t know that you mean that, but if you could say a little bit more on the ethical side of what you think constitutes too much, or how we would recognize it.

DR. FOST: Thanks, Leon. First, I’m glad you mentioned Paul Ramsey, who was maybe more than anyone else responsible for my entering this field as an undergraduate at Princeton. He was immensely influential in getting me interested in these issues and stimulating me to get involved, and an important mentor to me throughout my life, a really wonderful man.

Paul Ramsey did not quite say "impossible." In his famous debates with Richard McCormick, he said for a number of years it was impossible to find an ethically coherent justification for non-therapeutic research in children. But I’m sure, as you remember, Leon, near the end he said that perhaps we had to sin bravely, as he put it. That is, we have to do this kind of research. We have to admit that it’s wrong, but we have to do it.

What’s the ethical rationale for that? In my view, a better rationale than the simple utilitarian one would be what some have called a constructive consent. That is, to have a reasonable inquiry as to what a child in that circumstance would do if he or she understood all the ramifications.

That is, if an infant had a moment of lucidity and could understand everything that we understood, might he or she agree to allow a mere venipuncture in the interest of the class to which he belongs, the class of children or children with a certain disease, and so on.

That seems to me at least a more plausible basis. I think the bottom line is that, like Paul Ramsey, I don’t want to see this — to see a shutdown, a prohibition of non-therapeutic research. I think that the minimal risk rules and the assent rules are useful boundaries, but need to be, in the case of minimal risk, better defined.

I think that it has gotten way out of control. I was part of the National Commission deliberations, not as a member but as a consultant. And I know that what was meant by that rule was things that happen on a visit to a general pediatrician for a routine well baby visit, and that has gotten way out of hand. So I think that needs to be reined in, and I think if it were reined in I’d be comfortable with it.

And I just think assent needs to be taken more seriously. That is, children really — somebody really needs to say to them, and we need to have more monitoring of it, "Junior, let me make something clear. We want to stick a needle and get some blood from you. You don’t have to do this if you don’t want to."
Now, would everybody say no? I don’t think so. As Will Gaylin famously said, “A parent has a right to decide that their children are not going to grow up to be a selfish little bastard.” So that is some parents, and many parents in fact, would persuade their children that they want them to volunteer for this kind of research, because they think it’s good for them to be a volunteer, and it’s important to be altruistic.

That does happen, and I think it’s appropriate. I don’t think it’s abusive. Parents do more serious things in the name of altruism for their children.

So it’s a long-winded way of saying I think the common rule is adequate to protect children in this regard, if minimal risk were defined more rigorously and if assent were taken more seriously. That would still leave the problem of infants and children who can’t speak at all a little bit out there, but I invite you and the others on this Council to help us. I think with some more work we might be able to come up with an appropriate rationale.

With regard to your second question, I think if — the problem is that even for children who meet the parameters that you describe for adults, that it’s treatment that is excessively burdensome. And without compensating benefit, it is difficult in many settings to allow these children to die a dignified death.

The Schiavo case is an adult case, of course, but there are many children similar to Terri Schiavo, or not quite in a persistent vegetative state which is harder to diagnose in infants and children, but with profound brain damage in which there is unanimity among the medical people that this child has little prospect for any kind of social interaction, any opportunity to experience any of the pleasures of life, even those of a profoundly retarded person, and in which hospital attorneys or neonatologists, fearing legal consequences, or the kind of public maelstrom that surrounded the Schiavo case, even the involvement of the United States Senate, are reluctant to pull the plug or to stop treatment.

Skip Nelson will be saying much more about this later, and I don't want to intrude on his territory and where he has a lot of clinical experience. But I think it is very difficult to let children die in many settings, because of a very defensive attitude by lawyers, by physicians.

In fact, Loretta Kopelman is the co-author of a famous study in The New England Journal with her husband Arthur, a neonatologist, showing that after the Baby Doe regulations large numbers of neonatologists in America stopped using their judgment about what was in the interests of their patients — that is, shifted towards overtreatment, which was defined as treating children who they thought had no interest in being children, as a result of the Baby Doe regulations, as a result of, in my view, a false fear that the Baby Doe regulations prohibited them from acting in the interests of their children.

So, in summary, again, a complicated area and a long-winded answer, but I think the sorts of guidelines that apply to adults are applicable to children. We can’t even — it has become increasingly difficult to even apply those. I think the use of ethics committees provides a really reasonable procedural safeguard against the kind of egregiously unethical withholding and withdrawing that occurred 30 years ago.

I think it's hard to find cases of really what we would call egregiously unethical withholding of treatment that has been processed through an appropriately-constituted ethics committee. And, as always, the courts are, and should be, available to people who disagree with ethics committees or with decisions that are being made in that way.

I hope that's responsive.

CHAIRMAN PELLEGRINO: Any other questions? Gil, and then Dr. Lawler.

PROF. MEILAENDER: Yes. I want to raise several questions, several areas. I’m going to pass on the end-of-life questions for the moment, not because I think they’re unimportant, but just to try to get at a few deeper issues in some of the other areas.

First, with respect to the research, just as an aside, there is probably no way we could settle this without getting out the text, but I don’t think Ramsey changed his mind, by the way. The sin boldly stuff was, at least on my recollection, what Ramsey loved to do. That is, play with possible justifications that one might come up with for various things.

It was not, I think, his preferred proposal on the matter, but we’d have to get the text to decide that one. But on the research, I want to sort of get at a couple of what seem to me to be deeper questions,
and then also on the genetic testing.

The examples you gave were wonderful in a certain way of the requirements, the hoops that you are forced to jump through, and which do seem ridiculous to probably almost anybody sitting there listening. Raise a deeper question, though, exactly what — what's the larger concern here? The larger concern is, whom shall we trust? And how do we structure circumstances in such a way that we think, you know, trustworthy people are making decisions that are wise.

And we find ourselves in a circumstance, not just here but in many areas of our life, where the only way we can seem to find to do it is regulation/overregulation to the point of absurdity. But one of the reasons we find ourselves in that circumstance has to do precisely with the history you recounted, in a way.

So I’d be interested if you could say just a little more about that kind of question about exactly how we satisfy ourselves if there are people whom we can trust.

And then, one — second question on the research. This follows up on Leon’s question. On the one hand, you don’t want to shut down non-therapeutic research on children. On the other hand, you don’t think a moral justification for it, up until now, that’s satisfactory has been provided.

Would you be willing to say that to take up the question in a non-frivolous manner would require leaving open the possibility, as one possible answer, that it should stop? That is to say, your answer to Leon was simply you’re confident that an appropriate rationale can be found if we work on it.

Well, and that may be true, but wouldn't — if we're really serious and not frivolous in taking up the question, wouldn’t we, from the start, have to have at least as one possibility the idea that maybe there wasn’t any justification, and we just couldn't say that?

And then, on the genetic testing, if I can just put one more question before you, there must be deeper impulses or urges at work that lead us to want to know, with respect to these newborns, not just about PKU but about a couple hundred or a thousand possible abnormalities, even if, as in many cases you’ve said, not for now at least directly connected to any known disease.

What’s going on there? In other words, is there some larger cultural power or impulse at work about what we want from a baby or our need to know something if we can know it. In other words, are we going to solve these problems just by a recommendation, or are there some sort of deeper issues at work that push us in certain directions? And that may be very much harder to get a hand on than just a regulation.

I’d be interested if you could say something about that.

**DR.FOST:** Thanks. Those are all great questions.

First, with regard to who to trust in the research area, it’s my view that IRBs have worked extraordinary well. That is, that’s — that’s the main thing that has changed since the ‘60s and the ‘70s, the common rule and local IRBs to implement them.

It’s very difficult to find, in the last 20 years — and there have been several studies to support this — an example of the kind of egregiously unethical research that was common and ubiquitous in the ‘70s. There is a lot of conceptual basis for IRBs. I myself am very enamored of what’s called ideal observer theory. Put in simple language — many heads are better than one.

And I think it’s so hard to find an example of, really, the kind of research that was common back then that whenever something happens that’s controversial it becomes a cause celebre. So the death of Ellen Roche at Hopkins, the death of Jesse Gelsinger, stay with us for years and years and years, probably decades, and in my view don't even themselves constitute egregiously unethical research.

That is, I think it’s very difficult. I think there is a case to be made, both sides of those cases, and yet they've acquired — they've become poster children as research gone wild.

Research has not gone wild. The Roche case and the Gelsinger case are remarkable, because they are exceptionally uncommon, and even those cases I think have been — there has been demagoguery about them, and they've been overstated. So in my view IRBs have done an amazing job.

Have they produced a zero-risk situation, a situation in which no human subject ever gets mistreated? No, of course not. Nothing can. But it’s remarkably rare for — to have unanticipated complications of those sort, but, more importantly, to have research that would attract widespread condemnation.
So can you trust them? No, I wouldn't trust investigators. I think investigators, left to their own devices, will run through the stop signs for all the reasons that they did 30 years ago, not because they are evil or mercenary, but because they — their eye is on curing cancer in our lifetime and advancing science and advancing knowledge.

So, no, you need committees. I don't think we need the kind of micromanagement at the federal level. I think the local IRBs have generally done a good job. I think the sanctions are way too punitive, and for all the wrong reasons. So that's my response to that.

With regard to non-therapeutic research, is it possible that a serious inquiry will lead to the conclusion that there's no justification for it? Sure. Where would that lead? Would that lead to — lead me to recommend the policy of no more non-therapeutic research involving children? No, I'd come out somewhere where Paul Ramsey came at, and we — I'd be happy to dig out the text with you.

By the way, it was sin bravely, I think, not sin boldly.

But, obviously, national policy should not hinge on what Paul Ramsey thought. It should hinge on what a consensus of people in America think today.

So it may be that there is no — it may be one of these unresolvable issues in which there is no real compelling moral argument for it, but there is not a horrendous argument against it either, if we keep it — if we keep the noise level down and keep it to truly minimal risk/research.

And your last issue, what drives this mania for testing? I had notes on that, and I'm glad you gave me a chance to expand. I didn't want to use up too much of the air time.

There are several factors that are quite common in these — in this repetition compulsion. One is that the PKU lobby has been duplicated over and over again. That is, there almost always is a very zealous lobby that forms, consisting of parents of children who have died or have become profoundly — you know, if your child died of a rare disease, you understandably don't want to see this happen again to anybody ever.

And so — but you're not a scientist, and so you say it's just unimaginable to me that every child in America isn't tested for this very rare disorder, and so that something can be done about it. So parents are very much out in front of this.

Second, they are put out in front by the testers, some of whom have, frankly, commercial interests, so there is serious financial conflicts of interest in some cases. That wasn't the case in PKU, and it's not the case in all screening programs.

But there are commercial testing laboratories who would love to have this happen, and are funding publicity campaigns, as happens in other areas of medicine. So there is just plain commercial conflicts of interest.

Third, there are empires that don't make people rich, but that make people more powerful or influential. Let me tell you a personal story there. I've been interested in newborn screening for cystic fibrosis. I was co-investigator of what is I think the largest clinical trial ever done. Dr. Farrell at University of Wisconsin randomized over 600,000 infants over a 10-year period, to see if early diagnosis and treatment for cystic fibrosis was helpful.

Fifteen years ago, before that trial was even done, was even started, I was invited by WHO to attend a technical assistance conference to help other countries begin cystic fibrosis newborn screening. There were 25 countries there — Bahrain, the Soviet Union, Argentina. They all wanted to start newborn CF screening, and my thought was, why? I don't know of any evidence that it's helpful.

I know of lots of reasons why it might be harmful. Our study explicated and documented many of these harms, medical as well as psychosocial. You have far more serious problems in your country than cystic fibrosis. You don't even know what the incidence of cystic fibrosis is in your countries.

My sense of what was going on is that the people at the meeting were the equivalent of state lab directors who, you know, it was another machine. It was another couple of people on their staff whose expanded budget — it was getting more information, possibly some research interest. I don't think they were getting rich off of it, but they — technicians like to do things. Doctors like to do things. Testers like to test. So that's part of it also.

And part of it is very poorly thought out moral claims of justice and unfairness. If Wisconsin is
screening for 30 conditions, it’s unfair that a child in Iowa — and this has been the argument used driving the Secretary's Advisory Committee as far as I can tell. We need a uniform policy.

Well, if it's a bad policy, there's no virtue in it being uniform. There is no unfairness in not distributing something that has no known value or whose harms may exceed the benefits.

So those are some of the factors that have driven this, and they have been repetitive.

CHAIRMAN PELLEGRINO: Dr. Lawler?

PROF. LAWLER: Yes. Thanks for the great presentation. Just one point of clarification. The Baby Doe regulations were a great advance in terms of protection of the rights of people with Down's Syndrome. And that protection is more urgent than ever as there are fewer and fewer people with Down's Syndrome around.

Now, you said that has led to a regime of overregulation, over — of overtreatment — overtreatment, right. Now, the only thing I didn't understand fully is whether that overtreatment is based upon a misinterpretation of — a fearful misinterpretation of the existing regulations, or if the regulations, as now exist, need to be mended in some way, need to be changed in some way. What's the bottom line on that?

DR. FOST: Thank you, again. I mean, it’s as if I've planted these questions. First, I agree with you completely that the Baby Doe regulations were absolutely essential, or something like them. That is, I hope I've conveyed my personal view that it — I think I used the word “egregiously unethical” withholding of treatment from children with Down's Syndrome, spina bifida, and many other children, with excellent prospects for meaningful, happy lives.

The overreaction, in my view — and Dr. Kopelman and Dr. Nelson may disagree with this — my view is that overtreatment that's based on Baby Doe regulations is based on a false understanding of them. That is, I think the Baby Doe regulations have been widely misinterpreted and misapplied.

For example, to whom do the regulations apply? Any regulation has to say who it applies to. It applies to state health departments. It's a regulation requiring state health departments to respond in a certain way if there's a report of medical neglect, of refusal to provide medically necessary treatment.

Absent a report, the state has no duties. And, in fact, the Inspector General under President Reagan found all 50 states to be in compliance, even though thousands of babies were still being allowed to die in seeming violation of the substance of the rules.

The rules do not apply to doctors, hospitals, or parents. So they don't, in my view, impose a single requirement on physicians, families, and hospitals making local decisions. They're as free as they ever were at — I mean, they are subject to tort law and criminal law and all of the other laws that always did exist, but in my view the Baby Doe regulations have actually no legal implications for treatment decisions.

So the overtreatment that has been predicated on them is misstated and is a misinterpretation of them. Is that responsive to your question?

PROF. LAWLER: Exactly.

DR. FOST: Yes.

DR. ROWLEY: Thank you very much, Norman, and it's nice to see you again.

I have a different question, because you really raised three issues, of which you dealt with only one. Our Council meets every few months, and I think I've been a proponent of dealing with ethical issues related to children. We have actually in the past had several people come and speak with us about children, particularly early childhood development and brain development in young infants and children, which were very helpful for me.

I think that, in fact, we are going to have to make a choice, because we can't deal with the three issues that you raised. And you made a point that the issue you were actually going to discuss affected far fewer children than the two that you did not discuss.

And so from your perspective of the Council and where — I hate to use the term "where it could have most effect," because I'm all in favor of tilting at windmills if only — if that's the major thing we should be doing. But I would appreciate your opinion as to whether — which of the issues that you
raised, such as our dreadful neglect of children born into poverty, infants born into poverty, or child abuse, as compared with those that you spent the time discussing.

**DR. FOST:** Janet, thank you for bringing me back to what really matters, as you always do. Yes, I didn’t talk at length about the problems of poverty or the solutions to it or the problem of the uninsured out of sheer diffidence. I mean, because I don’t have any particular expertise, certainly compared to other members of the panel or other experts who you could bring in.

I mean, I have an ordinary person’s notion of what needs to be done. But those are overwhelmingly the problems that oppress and afflict American children — being born into poverty, into situations in which access to health care are constrained.

And child abuse I would put third on the list, because that only — but that only involves a few million children as compared with the tens of millions — I mean, these numbers are just absurd — who start off life with no fair opportunity to really succeed.

So those are the overwhelming problems. And, yes, if this Council could have an influence on the President’s policies or the country’s policies on something that really affected children, I would much rather you spent all your time on doing something about problems of poverty and access to health care and child abuse than these other three angels on the head of a pin issue, which in the final analysis affect very few children.

So, and part of it, I talked about things. There’s a story Robert Morley, the great British comic actor, tells that — if you’ll indulge me — he was explaining why he quit school at age 12, and he said it was an exam question. The exam question was, “Describe and discuss the Cape of Good Hope.” “And I wrote in my exam booklet, “I don’t have the foggiest idea where or what the Cape of Good Hope is, but I do know the 12 apostles.”

And he wrote the names of the 12 apostles and said something about each. And he said, “They flunked me,” and it showed me once and for all they weren’t interested in what I did know but only in what I didn’t know.

So I talked about what I do know, because it’s comfortable, and it seemed to me overreaching to go into any more detail about things that I really am not very expert in.

**DR. ROWLEY:** No. But I — that was not the purpose. The purpose was really to say if we as a group have to make a decision, which will be in a sense a group decision, what kind of advice can you, as a consultant, give us on that? So that was the purpose of the question.

**DR. FOST:** My advice would be that you spend what time and resources you have in making recommendations that affect children who were born into poverty and children who are born without reasonable access to health care. If you can make some recommendations that might influence national policy in those areas, it would be time well spent.

**PROF. DRESSER:** I have a related question, perhaps to push you in this area, because I think one of the reasons we haven’t done as much as we should in bioethics on these issues is because we don’t know how to approach it. It seems so overwhelming. And I know that some of us on the Council do want to get into these social justice questions.

So I guess one way I think about it is with limited resources, how would you allocate them differently from the way they are allocated now? And I’d be interested in what thoughts you might have, not just about allocation of health care resources and how that might better affect children, but also research resources.

So if you were thinking about taking the NIH budget and making it more child friendly, how would you spend your money?

**DR. FOST:** You’ve caught me off guard, Rebecca, which is good. So I don’t have well thought out responses to that question. So I’ll think aloud.

First, let me just say with regard to resources in health care, I’ve gotten into big trouble with the American Academy of Pediatrics for suggesting that the way we deliver pediatric health care should be dismantled. That is, having a pediatrician for every child is an extremely expensive way of providing mega hours of service that has no known relationship to health.

Roughly half of a pediatrician’s time is spent doing health supervision, which has no known relationship to the health of children. And these are — everything that’s done on those visits could
be done far more cheaply and efficiently by a nurse or someone with even less training. I mean, all of the immunizations, all of the weighing and the measuring and the eye checks, and all of that, you don’t need a doctor to do that. The doctor spends almost no time doing anything that you need a medical degree or training for.

So we could expand access of children if it were — if they didn’t have to be funneled through pediatric offices, if we had more of a public health program with well baby stations as occurred 50 and 75 years ago, where immunizations were given and/or even acute illnesses were managed by a non-M.D. So I would change that, if I could.

I would change the allocation of health resources away from acute illness towards more preventive services, of which child abuse is simply the most important example I know of. That is, prevention through home visitor programs rather than the $5 million treatment of every kid who gets whacked in the head and then we take care of him or her the rest of their life.

With regard to research, I would greatly shift the emphasis away from biomedical research into more epidemiologic and public health research. My M.P.H., my one year getting a master’s in public health, showed me just how much more powerful epidemiologic approach is to health care, both in research and implementation. I could give dozens of examples that are probably familiar to you of how — I’ll just give one just to make — make the point.

My colleague Murray Katcher, a pediatrician in Madison, discovered that were 100,000 patients admitted to hospitals each year for severe scald burns, almost all infants and the elderly. If the hot water heaters were set at 130 instead of 140 — at 140 it takes two seconds to get a third degree burn. At 130, it takes 45 seconds. So you would end burns forever if the heaters were set at 130.

He set out to do that. And to make a long story short, he did it. So there is an intervention that — all new water heaters in America now are set at 130. You can’t get people to turn the old ones down. So it will be 40 years before they all expire.

There is a piece of research and implementation that cost zero, didn’t cost one cent, that is going to prevent hundreds of thousands, millions of cases of suffering and death due to hot water burns, child-resistant containers — another virtually free intervention that has prevented tens of hundreds of thousands.

So I would shift the whole national research budget to more public health epidemiologic study and interventions of that sort. And I myself would spend less on hard science, assuming fixed dollars.

CHAIRMAN PELLEGRINO: Dr. Hurlbut?

PROF. HURLBUT: You mentioned the massive experimentation that is being done through off-label use of drugs, and then you also said that clinical research is dying, and that we’re looking at a whole new set of potential interventions that are quasi-therapeutic related to genetic screening. And it seems by implication those could go backwards, too, into fetal development eventually. In other words, you might end up administering drugs to pregnant women to — to deal with some things eventually.

Well, looking at it post-natally, is there a way we can enter into this difficult arena through the current therapeutically justified trials, research, therapeutically? In other words, given the difficulty of defining and justifying non-therapeutic interventions, can we get a better handle on some of the research that needs to be done through the therapeutic trials?

DR. FOST: Yes, definitely. If the PKU program had been subject to a — even a randomized clinical trial, which is sometimes hard to justify for what you think is a uniformly horrendous disorder, some children with PKU would have been lost — that is, would fail to have been treated. But many hundreds — we don’t know the number — of normal children would have been saved. That is, we would have found out in a year or two, instead of 10 or 15 years, what we were doing.

So that’s point number one is if these new technologies were studied systematically, I think in the long run we’re less likely to harm and more likely to help.

Even for conditions in which it is hard to justify a randomized trial, even a simple registry — I mean, we presently don’t have a requirement for states that are implementing all of these programs to maintain a registry, a state or a national registry. That alone would at least allow for some observational collection of data, so that 10 years from now we know what the outcomes of all these children are.
So, in my view, that’s urgently needed — a national registry for all children that are screened and treated as a result of these new technologies.

Third, I think having the laboratories of the states that — let me say that differently. Having variation among the states I think is a good idea, not a bad idea. That is, right now some states like Wisconsin are doing them. Others are holding off.

I hope it stays that way for a time, because it’s not quite a prospective randomized trial, but it’s a reasonably controlled trial. So that 10 years from now we’ll be able to look at children in Idaho and with — who have these conditions, and we can always diagnose the conditions, and we can always get a sample of blood and find out who has these chemical abnormalities and who doesn’t.

So I think in the absence of better knowledge having some variation in the way states approach this is a healthy thing. I worry a lot about a national standard being implemented. I hope that’s responsive.

CHAIRMAN PELLEGRINO: Other comments?

DR. KASS: Norm, I wonder — again, this may be to ask something outside of your area of expertise. But none of the things that you have spoken about deal with the question of the mental health of children. And I wonder if — I mean, child abuse is one area, and the consequences of poverty and deprivation imply that part of the cost is in terms of mental well being broadly conceived.

But do you have any suggestions along these lines? And not just concerning, let’s say, the health of the identifiable abused children, but more generally whether there are things for this Council to be thinking about in that area.

DR. FOST: Yes. In fact, I’ve written a couple of papers, which I’d be happy to provide to you, on essentially the perils of innovative therapy in emotional and behavioral disorders of children. That is, the inadequate amount of prospective randomized, controlled trials, the difficulty in getting funding is a big part there, but also in getting investigators and some fighting off what I consider to be somewhat demagogic opposition or resistance to experimenting on children, or using them as research subjects, in treatment trials, in therapeutic trials.

So I think mental health is especially forlorn as an area for systematic research for interventions, pharmacologic, behavioral, and others. And there’s way too much innovative therapy that is, as you probably know and other members of the Council, millions — tens of millions of American children get SSRIs prescribed for everything from depression to behavior problems to anxiety to obsessive-compulsive disorder, with almost no data. And we now know that these drugs have serious adverse effects, that suicidal ideation is now — and suicidal behavior has been unequivocally shown to be increased in children.

Well, that may be worth it if you’re prescribing it for something that’s a real problem and for something for which there’s a real benefit, but we don’t know that. And I could cite more specific data, and I can send you the article that shows it.

So the general answer is there is a tremendous shortfall in the amount of research that should be done on children with mental, emotional, and behavioral disorders. There is way too much innovative therapy going on, especially in that area.

DR. KASS: May I? This was welcomed, but let me — let me just put it a little harder. I talked about mental health and well being. The answer came back in terms of the medical treatment of disorders. And this may be what Gil was hinting at when he was asking about the drive toward testing.

Should we be concerned about what in previous discussions — we’ve had a few discussions of this so-called problem of medicalization, of the — the revision of the understanding of child development and child-rearing in medical terms such that the turn is immediately for some kind of medical testing, medical intervention.

Do we need — I mean, is this something that ought to concern us? How one actually conceives normal child development, child-rearing practices, and to what extent the desire to see these increasingly either through neuropsychiatric terms or medical terms is itself something to be worried about, or is it — are we going in the right direction, but we just don’t have enough of it?

DR. FOST: Okay. I think I understand your question better. Well, let’s take ADHD as an example.
That often arises in these discussions — attention deficit hyperactivity disorder. Explosion in medical approach to that disorder, millions of prescriptions a year for children — for treatment of a disorder which has no gold standard test, for which diagnosis is uncertain, and criticism by many people who think that whatever problem a child has is something that would be better if it were understood as an environmental problem, behavioral problem, a parenting problem, a school problem, and so on.

I think there's truth on both sides of that debate. That is, I think there's no reason to be phobic about medicalization of a problem, if medicine helps — if it’s safe and effective, and if we’re sure it’s getting to the right children, and if we have systematic studies and have reasonable non-toxic drugs.

So the fact that ten million children are getting a drug that may help them perform better in school, if it’s a safe drug and if it does help them perform better in school and makes their lives better for that reason — I mean, hypothetically, if the drug had no side effects and were free, I don't see any reason, just because it’s a drug, that we should be against it. Nor would I see any reason to be against better schools with better teacher-child ratios or better parenting or environmental or behavioral approaches or nurturing that would produce the same result.

But the problem, as you know, is it’s easier and cheaper to find a drug that will solve the problem than to figure out how to get the teacher-student ratio down from 30 to 1 to 10 to 1. So I don’t see any a priori reason to be for or against any of these things.

Obviously, we should be doing research on all of these fronts, and we should be looking for the most effective, most efficient, safest, best way to help children. I don’t see any reason to be for or against drugs just because they're drugs.

CHAIRMAN PELLEGRINO: Dr. Meilaender?

PROF. MEILAENDER: This is a question that’s related in a way, though coming from a very different angle. And I can only come at it — I mean, I’m not a practitioner, so I just have to go on my own tiny little experience.

But it was interesting to me before, in an answer to an earlier question, when you said that — I think you were talking about allocation of resources or something and you said that — that pediatricians spend a great deal of their time doing things that you don’t need medical training for. I mean, you could have other people do them.

But that's connected to the medicalization question, because I would have said — again, now just off — just off my own personal experience, that pediatrics is the one area of medicine where there is still a good bit of talk that goes on between doctors and patients.

Now, that’s not something maybe that you need certain kinds of medical training for, but I wouldn’t want to call it an unimportant part of medical care. And, indeed, I think from the lay person’s perspective one of the problems with — I mean, a lot of the jokes that people make about doctors — there’s no talk that goes on. You've got to kind of yank him back in the door sort of.

So it just — the question that interests me is sort of how we ought to try to think about these questions, and whether we need to think about them in — well, I was going to say larger, but that prejudges the question — just what the right frame of reference is to think about these.

You see, I would say that it’s good that pediatricians spend a lot of time just talking, even if it doesn’t require some sort of hyperspecialized training. And I wonder if you could just think about that a little bit.

DR. FOST: I think it would be good if pediatricians spent a lot of time talking, but they don’t. No, there are numerous studies that show —

PROF. MEILAENDER: Mine do, but —

DR. FOST: Yes. Well, it has been studied. Maybe it's not the same everywhere. I’m sure it’s not the same everywhere. But the studies that have been done show — first of all, I think what — the main thing that parents want out of that well baby visit is — is talk.

And to talk about the long list of concerns about child-rearing and child behavior and what to do about drugs and alcohol, and all of the other things that beset parents and children these days, the problem is empirically that the amount of time that a typical pediatrician spends talking about those things in a well child visit is about 90 seconds. That's the average.
Second, those things could all be very well done, as good or better, by a qualified and trained nurse, nurse's aid, social worker, somebody who could be equally knowledgeable. You don’t need to go to medical school and take — in fact, there is very little in medical school or in residency training on those issues.

Pediatricians get remarkable little training in all of that, in some programs better than others. But the point is you don’t need a pediatrician to do it.

So if I just had access to the dollars that go into pediatric care in America, defined as care that children get in pediatrician’s offices, I could get a much bigger bang for that buck, including much more talk — and I don’t mean to belittle talk at all. I agree with you, I could get much more talk by reallocating it to less expensive, equally qualified practitioners.

**PROF. MEILAENDER:** Yes. I don’t really know exactly what got me to this, or how we come to it from where you started us. But I don’t think it’s just the amount of talk. It’s a question of who you’re talking to. See, I mean, I want to — when I’m sick, there are certain people I want to talk to.

Get out of the medical realm entirely, the large congregation, of which I’m a member, sends all sorts of people to the hospital to talk to members of the congregation. And as I once told my pastor a while back, “When I’m in there, you’d better be there to talk to me.”

It’s not just a question of amount of talk. It’s the question of to whom you’re speaking. And, once again, that’s got something to do with the way we conceive of what’s important in medicine. I just — I don’t want to lose that in the focus on specific specialized technical details.

**DR. FOST:** You’re referring or suggesting that the authority of the doctor may have some added value that would not accrue to a less prestigious person?

**PROF. MEILAENDER:** Well, that may be true. And it’s — you know, I take — I spent a lot of time and money going to see this person, and I expect something other than just technical expertise.

**DR. FOST:** Right. I mean, I think when you’re sick or when your child is sick there’s a lot of truth to what you say, and validity to it. But if your child is bed-wetting, I don’t know that the kind of advice that you need, and the kind of remedies that are available, and where do I start, and what do I do about this, I don’t know that there’s much added value in having somebody with an M.D. after his or her name as compared with somebody who knows the field, knows what’s available, knows what to do, can get you started on the right track in an empathic way.

**CHAIRMAN PELLEGRINO:** Alfonso?

**DR. GÓMEZ-LOBO:** This is just a brief reflection from someone looking at all of these things completely from the outside. And I’m very much impressed by the — your reference to poverty and to the deprivation of access to health of young children, because of the social condition.

And it seems to me that that seems to be sort of a grounding reality, and my reflection is simply this. As a Council, we should consider that surely as part of bioethics, as part of social justice issues. And I just hope that in the final report on issues relating to childhood we go into that as deeply as we can.

Now, I think that there’s an intersection with politics and social policy that it’s very hard for us to tackle. But, still, it seems to me it — it seems to be so central, so deeply rooted in virtually everything that happens afterwards that we should really as a Council consider it, I think.

**DR. FOST:** Yes. Let me just give you one fact that ties some of this together, some of my comments together. One-third of all abused children in America are ex-prematures. One-third of all abused children in America are ex-premature children.

Prematurity accounts for about six percent of American births. It accounts for about 33 percent of child abuse in America. Who gets born — the reasons for that are multiple. Prematures are born, many of them, to teenage mothers. They are children who are notoriously difficult to take care of. They have disabilities and handicaps. There’s a lack of bonding. In the newborn period they’re in an intensive care unit for weeks or months, and the parents take this stranger home, and so on.

Who has premature children? Teenage mothers, poor mothers, mothers without prenatal care, mothers who have health and drug problems of their own. That is, poverty, lack of prenatal care, prematurity, child abuse, if you could just reduce the incidence of premature — our problems of prematurity dwarf. I mean, you know, it’s one of those many areas of American health where we’re near the bottom of the list of industrialized countries.
If something could be done to reduce that, there would be reduced child abuse.

**CHAIRMAN PELLEGRINO:** Dr. McHugh? We have time for one more question.

**DR. McHugh:** Just one question. I enjoyed your presentation, Dr. Fost, and I particularly appreciated some of those old stories that I remember about how, really, the doctors lost the trust of families who had given their children into hospitals and discovered that — some of them discovered directly, others indirectly, that the doctors and even the nurses themselves had lost some interest in the loved one that they had submitted there.

And the loss of trust or the betrayed trust has produced what it always does — namely, this increase in regulation, the regulations that are completely out of control now and are interfering with our capacity to work it.

But, you know, the blame does fall back upon us. We did it, and now we are paying a terrible price. And to win back the trust of the American people of this sort requires not only the presence of IRBs but the particular demonstrations, as you've demonstrated today, of the — of what we are losing.

Now, I'd just like you to look ahead now, since, you know, we have — this world we're in now and we ourselves aren't perfect — what kinds of things do you think we are going to think in 10 or 15 years from now represent egregious betrayals of trust in hospitals and places of that sort, to the families, that bring our children — their children to them?

I wonder whether, for example, you might think in terms of whether managed care in the great shortage of time now presented to — in-hospital to patients and families that might lead — mean longer time, or investments of more resources for the care of them, even with chronic illnesses like the AIDS epidemic in young children, and whether we are prepared to carry the concerns and services that those kids need.

And you have mentioned in this little discussion with Dr. Meilaender how little talk gets done. And maybe little talk gets done by pediatricians and other M.D.’s because they don’t know any psychology, and we don’t teach psychology in most — to most medical students. It’s the only basic science they don’t know anything about.

And, eventually, even empirical psychology would help them in this, and this neglect might be something that people will come to regret and ultimately find, once again, imposed upon them. Do you have any predictions from what we’re doing now?

**DR. FOST:** Well, I’ll accept your invitation to wax political for a moment. If I — if you asked me to guess what will most embarrass us, or make us ashamed of ourselves 25 years from now, it would be the massive reallocation of funds from the lower and middle classes to the upper classes.

That is, in a country that has these problems that we’ve been talking about, the continuing widening of the gap between the rich and the poor and the reallocation of funds in the — from those who are least well off to those who are best off. That, to me, should be an embarrassment, and I think will be. And the effect that that will have on our children will become clearer as time goes on.

Second —

**DR. McHugh:** Are we doctors contributing to that? Are we — in the way we run our hospitals and insist on the lengths of stay and things? Is that really — by the way, the care of the poor is certainly something we all agree on, and those of us who live and work in hospitals of — in the inner city see this all the time.

But the pressure is not simply in relationship to whether the government is going to take a concern for the poor, but whether the hospitals themselves are contributing to the abuse of the poor and the kind of regulations that they are prepared to enforce upon their young physicians.

In our hospital, the doctors are told that they have to have a certain short length of stay to be darn sure that they get the money from — and these are for the poor.

**DR. FOST:** Well, you know, Justice Cardozo said laws aren’t written until they’re first broken. So I think things like managed care and length of stay rules, and so on, were necessary. That is, I think the waste in the American health care system was, and still is, prodigious, the inefficiency.

And given the finitude of funds that are available, I think squeezing inefficiency out of that was unavoidable and necessary. And doctors weren’t doing it on their own, so payers had to hire managed care companies to do it for them.
So I think that was unavoidable, necessary, and the studies that I read — not all that bad in the final analysis. That is, there are efficient managed care systems, like Kaiser Permanente, where satisfaction rates are as high or higher in fee-for-service systems and where patients are actually quite pleased with the care they get, even though there has been a great squeezing down, and so on.

I think another thing that we at least should be embarrassed about 25 years from now — whether we will be or not, obviously, I don’t know — is this constant ability to find new technologies to spend our money on when we — we just — we’re just out of money when it comes to solving problems like the uninsured.

So it seems to me remarkable that the State of California has $3 billion to spend on stem cell research. Forget the ethics of stem cell research, about which you've dealt in great depth. But that the citizens of that state could decide that they have $3 billion for a technology that has as yet no known payoff, and even when it does the number of people who it’s likely to help are going to be measured in a state that has prodigious problems with education, with access to health care, with poverty, and so on.

We always can come up with a billion here and a billion there for some new technical thing that is fun and fascinating. But we’re just out of money. We just can’t afford to have basic access to simple, ordinary, primary health care for 40 million people.

CHAIRMAN PELLEGRINO: Thank you very much, Dr. Fost. I’m afraid the schedule requires that we intervene at this point and have our break. I’ll take the Chairman’s prerogative of extending it beyond the time in the agenda, which is supposed to be at 10:45. And if you’ll return at 10:50, we’ll start promptly.

Thank you very much, Norman, for drawing on your extensive experience.

And let me thank the Council members for their close questioning on a very important topic.

Thank you.

(Applause.)

Whereupon, the proceedings in the foregoing matter went off the record at 10:39 a.m. and went back on the record at 10:59 a.m.)

SESSION 2: ETHICAL ISSUES IN NEONATAL AND PEDIATRIC INTENSIVE CARE

CHAIRMAN PELLEGRINO: Our next speaker is Dr. Robert Nelson. Dr. Nelson is Associate Professor of Anesthesiology and Clinical Care at Children's Hospital of Philadelphia, and a Senior Fellow, Center for Bioethics, the University of Pennsylvania.

He has his bachelor's degree from Wesleyan in chemistry — he and I share that — an M.D. and M.Div. from Yale, and I had the good pleasure of knowing Skip when he was a medical student at Yale, pursuing a double degree in the School of Religious Studies as well.

He is occupied now, and moved very, very fast in the field of bioethics, particularly in intensive care, but still ranging over a whole series of issues of the kind we'll be looking at.

I've asked him, as I've asked the other speakers, to feel free to range over the problems of pediatrics, but to try to concentrate as closely as possible on his area of expertise.

Skip, welcome to the Council, and it's all yours.

DR. NELSON: Thank you, Ed. And in case people haven't figured out, Skip is my nickname.

(Laughter.)

Which I've had since a little child. And, actually, an anecdote on that — when I was a medical student, was asked what to put on my name tag, I wrote down “Skip Nelson.” And the Dean of Students at the time vetoed it, because he didn’t think that was professional.

Immediate identity crisis, nevertheless. And I’ve kept it. So I went into pediatrics, so I don’t have to apologize for the fact that that’s my nickname.

I’m certainly honored by the privilege to speak here, and certainly by the task of speaking and even using some of his own work in front of one of my mentors, Dr. Pellegrino, with whom I took a
reading course back in 1976, the summer of 1976 when he was President of Yale New Haven.

And then, the daunting task as well to follow Norm Fost, who sets a tough mark when it comes to remarks, as far as in the field of ethics.

Before I start my presentation, I can’t help resist but make two comments from the previous discussion, briefly. The first is, to the extent that you decide to get into things like prematurity or research, there have been committees — for example, the Institute of Medicine, there is a current committee working on problems of prematurity, and there is a report from the Institute of Medicine on pediatric research that came out last year — March 2004.

And I would certainly hope and commend those reports to you to build on if — if the desire is to begin to get into some of those issues.

The second is a comment on Paul Ramsey and the non-therapeutic research. Two things. In 1978, he wrote a chapter where he agreed with Bill Barthes that perhaps the parents’ responsibility, or, if you will, authority to nurture the moral growth of their child around assent to non-therapeutic research might be a sufficient benefit that he would admit that that would be inconsistent with what he would call the parental covenant.

In a recent article that Lainie Ross and I wrote in Journal of Pediatrics we suggest the concept of scrupulous parent as a way to try and understand the risk exposure in non-therapeutic research, and would invite the possibility of exploring more broadly what that might mean, and perhaps Paul Ramsey may have had a narrow view of parental covenant, and then perhaps a discussion of parental authority might be a way to begin to ground decisionmaking in non-therapeutic research.

And I see that notion of scrupulous parent functioning the same way as a reasonable patient might in the law surrounding issues of informed consent. But just as a suggestion.

Now, more directly on my topic — let me just move this closer, so I’m not leaning — I think you’ll find that Norm and I disagree about the impact of the Baby Doe regulations, not so much in the importance of what they did at the time but in how they’re now playing out in the law.

And I do have Powerpoint. You have the slides before you, so there is not even — you can choose to look at the screen, or you can look at the printed text before you.

me start first with some introductory remarks, and here’s the of what I’ll cover. Over the last 40 years, there have been dramatic benefits in technology. I mean, an example for you to consider, the ventilation of newborns with hyaline membrane disease started in the late 1960s. It wasn’t until 1969 that even the use of continuous positive airway pressure for the treatment of hyaline membrane disease was started.

We’ve come a long way through that time to the 1990s when we developed artificial surfactant, which is now administered routinely, to where the window, if you will, and the discussion of the transition of pre-viable to viable has narrowed to where we’re really debating, at least in neonatology, the difference between 23 versus 24 weeks’ gestation.

So there has been — whereas if you went back into the ’60s, we’d be thinking about the 30-weeker or the 32-weeker. At what point is neonatal intensive care not worth doing? The window, because of the technology we have, is exceedingly small as we begin to debate that issue.

The field of pediatric critical care medicine is also even younger. I was in fellowship training in neonatology, which I did in addition to my critical care, when the pediatric critical care boards were even founded. When I was a resident at Mass General, Boston Children’s didn’t have a pediatric intensive care unit. They started it in 1981, with some areas starting it earlier.

So the field of pediatric critical care medicine is even younger than neonatology. And there have been dramatic advances to the improvement of child health. I mean, to give you an example, the morbidity — I should say the mortality of a pediatric intensive care unit ranges four to five percent. That’s it — four to five percent. Ninety-five percent of the children that enter survive, and the majority of those survive well and survive in a condition that they entered the ICU.

So the statistics, when we talk about issues of limiting or withholding support, we are talking a narrow group of children. I would agree with Norm about the priorities and the importance of priorities. What I’m going to be talking with you about is a small group of children.

There are important issues surrounding when we start technology, the device and drug development
you hear about, which normally the two — off-label use of medications, provisions of needed resources, and so forth.

But what I'd like to focus on as much because I think it's an area that could use your help is the area of decisions around when to either not apply or to stop our technology, issues surrounding either the withholding, not starting, or the withdrawing/stoping life-sustaining medical treatment in pediatrics. And that's what I'd like to focus on as we move through this approach.

Now, thinking about how to go about this, I often like to start with cases. But I thought I'd start a little bit with a framework for decisionmaking, and then a brief discussion of two ethical principles, as much so when we get to the cases that I'm choosing to discuss you have an idea of where I'm coming from, as opposed to getting into the cases, you're kind of wondering what I think and what my ethical stance is, etcetera. I'm just going to lay that out at the start, so through the cases there won't be any confusion, if you will, about my own particular approach.

And with apologies to Dr. Pellegrino, if I have modified how he initially presented this, let me show you how I tend to think of our interactions. I mean, in medicine we establish a diagnosis. What's the importance of that?

It allows us to be able to predict an outcome, and then, for that reason, make some kind of intervention or treatment that would hopefully impact on the probability and the assessment — the benefit of harm of that particular outcome. That's what we do as physicians — make a diagnosis in order to establish an intervention.

Now, as I think about it, the interventions that we have are structured around what could be called the "technical good." In other words, we make an intervention to reverse a physiologic state, an abnormality of some kind, that we hope, in consultation with the family, is in fact for that child's benefit.

Now, most of the time — as I said, 9 times out of 10, or 19 times out of 20, it's straightforward. I mean, our technical interventions do, in fact, support the good of the patient to the extent that we then don't need to make explicit that relationship, because, in fact, it works.

So we don't need to make explicit the value that rests behind that technical good in establishing the prognosis, if you will, or the outcome. It just is implicit and doesn't need to be made explicit.

The problem is when that isn't the case. When there's no immediate relationship between the technical intervention that I can make in an intensive care unit and what might be, then, for the good of that particular patient. I can bring my expertise surrounding, if you will, the kinds of outcomes I can produce — again, if you will, structured within the probability of those kinds of outcomes and within the information that we may or may not have based on research.

The parent, or the child if they're old enough, may bring, in fact, an important perspective on what they believe is good for them. And it's out of — that particular discussion becomes a sort of negotiated model in a setting where it's not readily apparent that the technical good, the skills that I can bring as a physician, in fact serve the good of the patient.

Now, I'm not saying I'm only talking technical talk with them. I'm engaged in this discussion, but I'm engaged out of my own particular expertise. I'm not limited in that discussion. Hopefully, I can understand the good, and they can talk about it. In fact, not talking about it and assuming that the technical good is always right for the patient leads to problems, which we'll get into.

So briefly, on two of the ethical principles that I think are important as I struggle, if you will, with decisions around limiting or withdrawing life-sustaining treatment in both the neonatal and pediatric intensive care unit. The first is the classic teaching of the symmetry, if you will, between withholding and withdrawing.

This was stated by the President's Commission on Bioethics in the early 1980s, and the standard view is that, in fact, if a treatment is or is not medically indicated, that there is no moral or legal difference between withholding it or withdrawing it. If you've decided not to give it, that's fine. If you give it, you can take it away, depending upon whether it's medically indicated.

That those individuals, whether physicians or parents, who struggle with taking something away that has already been started, if it's not medically indicated, it is just a psychological issue. It's not a moral or a legal difference.

Now, although I generally agree with that, I think there are exceptions, and so I do not think that
this principle stands on ethical grounds as always being true. Why is that? It assumes that the technology itself is value neutral; that, in fact, when you've applied it there are no values that come with it.

It ignores the social and organizational context of that technology, the values that have, in fact, shaped it, and the impact of any change over time. What's different then, in the future that might be different now? And it reduces technology to an essential physiologic function. In other words — and let me give you the examples.

The palliative surgical procedures — in other words, gastrostomy. A gastrostomy is not the same as a nasogastric tube when it comes to issues of withdrawal. To argue it is I think ignores important moral differences in the application of that technology.

Neither is a tracheostomy. Now, that itself would be a broader discussion, and I may be laying out something. I'll get into that a little bit later as well. But I personally don't think in certain circumstances that this symmetry holds.

Now, the doctrine of double effect — this may be familiar to some. It's certainly not familiar to clinicians, even though we talk a lot about double effect when we use medications in the intensive care unit. Let me just make a few points here.

The object of action must be right or indifferent in itself and cannot be intrinsically wrong. I think that's fairly straightforward. The wrong effect, though foreseen, cannot be intended.

Now, what happens here is often when clinicians, say, give a narcotic to relieve pain, if you look at studies there will be reports that a third to a half may have the intention to hasten death, although those same studies actually show — the ones done in the United States, putting aside The Netherlands for the moment, that the use of those medications in fact did not hasten death.

My suspicion is that those individuals are struggling with their ambivalence, and our thinking about intentionality in a psychological sense, not in the sense it was originally intended, which is the structure of the Act itself — in other words, you can interpret the intention of the actor by looking at the Act, not by what they say they think they're doing when they do it.

So if you're giving an appropriate dose of medication for that context, I don't care what you're thinking. And if you're not giving an appropriate dose for that context, I don't care what you're thinking. The act is how you interpret the intention.

Now, the wrong effect cannot be the means to the right effect, and this comes into the discussion of hastening death to relieve suffering, which I'll talk a little bit about towards the end of my remarks. And then, finally, there must be a proportionate reason for allowing the wrong effect to occur, which gets to this balance of benefit and burden of treatment.

Personally, I think this is a very important principle behind the provision of either withholding or withdrawing life-sustaining treatment, or the provision of palliative care in the intensive care unit. And one reason I believe that is I personally do not believe that I should ever intend, nor cause, the death of my patients.

And for me, then, to be able to provide care under that circumstance, given that belief, I need this doctrine. And I know there's a number of criticisms that this doctrine has had in the literature, but I still find it both useful and defensible.

So I'm going to spend a fair amount of my time telling the stories of Baby Doe, Sidney Miller, and Emanuel Villa, to give you, I guess, a different take on what Norm gave you about the Baby Doe regulations.

Now, this states the regulations. The regulations are now part of the Child Abuse Protection and Treatment Act, and they basically require medically-indicated treatment unless five — one of five conditions hold — the infant is chronically and irreversibly comatose, and I'll mention the definition of "infant" in a bit.

Of course, setting aside there are no professional standards for determining chronic and irreversible coma in a neonate, treatment would merely prolong dying, treatment is not effective in ameliorating or correcting all of the infant's life-threatening conditions, treatment would otherwise be futile in terms of survival, and treatment would be virtually futile in terms of the survival of the infant, and the treatment itself under such circumstances would be inhumane.
Now, let me just at this point say I agree with Norm's assessment of the impact of the Baby Doe regulations in the 1980s. I also agree with him that it was very important to stop behavior that I would consider unethical.

But any time you then try to write a general principle that covers the specific cases that gave rise to that general principle, and it gets divorced from those cases, it then, given the language, runs the risk of being applied in a way that was either not intended or extends it into arenas that were not foreseen.

And that's, in fact, the story that we will then be discussing is: where has it gone, and where might it go? Not necessarily where has it been, and what was the importance of it at the time?

Now, one note is that the interpretation of these regulations, first, is that appropriate nutrition, hydration, and medication, without specifying what that medication was, must always be provided. That was an exclusion in the regulations. Nutrition and hydration, medically provided, is a controversial topic, and this takes a particular position on that topic for disabled newborns.

Another interpretation is the phrase, "It is clear that Congress did not intend to sanction considerations of the future quality of life of an infant likely to survive if the treatment is provided." So the intent of the Baby Doe regulations, as stated, was to sanction any consideration of quality of life.

And I think one challenge, if, in fact, we think that has gone too far, is to say, "Do we want to recapture that language?" which I think has difficulties with it, admittedly, or do we want to somehow figure out other ways to speak about the value of interventions for critically ill newborns and children. That may avoid some of the problems surrounding quality of life language.

And then, just to show you that this may seem to be just a neonatal issue. But, frankly, since the majority of children, if not the — if not at least a plurality of children in the pediatric intensive care unit, are graduates of neonatal intensive care units, it applies in that arena as well. An infant was defined as less than one year of age.

However, if an infant is older than a year of age, and has either been hospitalized since birth, was born extremely prematurely, or has a long-term disability, these are also meant to apply by that definition. So there is potentially an arena beyond simply neonatal decisions where this could be a player.

So I’d like to tell you a tale of two cases, with apologies to Dickens. The first is Sidney Miller. The date, 2003, was the Texas Supreme Court decision. Sidney was born in 1990 at 23 weeks’ gestation, either at 614 or 629 grams. For those knowledgeable people, that’s a bit heavier than you’d expect a 23-week infant to be.

There was some discussion, at least as I could tell from the literature, since I don’t know the case directly, of whether the child was — there was some in utero infection that may have resulted in some edema, etcetera. But this was the case, and the claim was that she was resuscitated against parental wishes, which is fairly well documented.

The second case is Emanuel Villa, also known as Montalvo, from a Wisconsin case who was born in 1996 at 23-3/7 days — weeks’ gestation at either 615 or 679, depending upon what document you look at, who was resuscitated with inadequate information. And then, both parents claimed failure of the physicians to obtain informed consent for those resuscitations.

Now, here are the words of Mark Miller from an article in The Hastings Center report. "We opted for compassionate care based on the neonatologist’s recommendation that the alternative aggressive treatments would almost certainly cause painful lifelong illness and disability.

What happened, then, as that decision circulated out into the general neonatal intensive care unit, and other areas of the hospital, is that an administrator ordered a neonatologist into the delivery room without the consent of the parents to treat. That basically was a claim that there was a hospital policy that all infants about 500 grams required resuscitation, and it was also based on an interpretation, if you will, of the Baby Doe regulations as applied in the State of Texas.

So those two factual claims are not in dispute. It turns out, interestingly enough, it was a neonatal fellow who was the one that went in there, not the neonatologist. Talk about issues of staffing and seniority, etcetera.

Now, the bottom line is the Texas Court of Appeals, and then the Texas Supreme Court, though both
for slightly different reasons, said that there is no duty to obtain informed consent for resuscitation prior to the birth of a premature infant. The Texas Court of Appeals based this on an argument that the child's medical condition was not terminal, which is language taken from the Texas Natural Death Act.

And the Texas Supreme Court based this on the fact that there's no requirement for informed consent, since the child born then at 23 weeks' gestation — under those emergent circumstances, the physician needed to make an independent decision about what was required. And that was the argument of the Texas Supreme Court.

Now, George Annas wrote an article in *New England Journal of Medicine* with his assessment, and just let me point some of those comments out and then editorialize on them. First of all, he commented that an informed decision about resuscitating an extremely premature infant can be made only by actually examining the infant at birth — is good medical practice.

Now, there's a debate about that. There is some literature to suggest that if you have good early dates, which would exclude a number of mothers who present with premature birth, but if you had good early dates, and a first trimester ultrasound, that that's actually more accurate in predicting gestational age and then linking that with outcome, than an examination by a neonatologist at the time of birth.

So that's a debatable point. But by and large, I think it is true that clinicians would maintain, if you will, the right to have discretion surrounding that resuscitation.

Now, he also makes a second point which I think is true, that it didn't require the physician necessarily to resuscitate. It just requires the physician to evaluate, although we'll go a little bit further when we get to the Montalvo case.

The third point is he claimed that it would be unlikely that anybody would question a decision to cease aggressive care. Sidney Miller suffered complications in the neonatal intensive care unit that many would argue was a basis for considering limitation or withdrawal of support.

The parents, in fact, did not make that decision. They didn't feel morally they could. It's a debatable point whether or not everyone would agree. And then, finally, he makes the argument that parental consent is legally required in the NICU. Well, that would be, of course, true unless the parent had no right to withhold treatments that were mandated for other reasons.

Now, let's go to Wisconsin and talk about — I'll refer to the case as Montalvo. Born in 1996, 23-3/7 weeks' gestational age, 615 or 679 grams. Again, resuscitated without — with inadequate information. So this case — the parents agreed for resuscitation at the time, but then, as they learned subsequent to that the complications of prematurity, etcetera, they felt that that consent was not fully informed.

So the parents made the argument that they should have had the right to genuinely informed consent about the treatment of their extremely premature infant. This quote is taken from a commentary that was published by the mother and father. That's Nancy Montalvo, and I think it's Brian Villa, in the Journal of Perinatology in 1999.

And as a personal note, this commentary was a publication of a grand rounds that when I was still in Milwaukee I actually invited them to give, and it was a discussion between the father and then a mother of another infant who was born severely disabled who had I think a very different view of disability, and then a discussion by a neonatologist. And that grand rounds became this commentary.

I don't know at that time if they had brought suit or not, but they subsequently did bring suit. And the Wisconsin Court of Appeals made the following determination — informed consent comes into play only when there is a choice of available viable alternatives. Apparently, that is an interpretation of Wisconsin state law.

And they gave two reasons after the cesarean, which was the mechanism of birth, why there were no available alternatives existed to give rise to the obligation to engage in the informed consent process.

So the first reason is absent being in a persistent vegetative state, in the State of Wisconsin there is no right to withhold life-sustaining medical treatment. So requiring informed consent presumes that the right to decide not to resuscitate the newly-born child, or to withhold life-sustaining medical treatment, existed.
The Wisconsin Supreme Court, in a case in 1997 which involved an adult who was in a persistent vegetative state — and I believe on a ventilator was the issue of the life-sustaining medical treatment — found that withholding or withdrawing life-sustaining medical treatment is not in the best interest of any patient not in a persistent vegetative state.

That’s a double negative, but it’s an important double negative because they did not say that it is in the best interest of any patient in a persistent vegetative state. They specifically meant to exclude making that decision if you were not in a persistent vegetative state. So the double negative there is important.

It basically means that absent — in the State of Wisconsin, absent the diagnosis of a persistent vegetative state, the Supreme Court of the state has ruled that there is, in fact, no right to withhold life-sustaining medical treatment from a child — for that matter, from an adult. That that right does not exist. And we’re not talking about food and nutrition here. Let’s be clear. We’re talking about anything. Anything.

Second reason — CAPTA prohibits withholding life-sustaining medical treatment. Now, the argument that Norm made, which is an argument that has been made by many, including myself, up to now is that Baby Doe, at the local level as you’re making individual decisions, didn't apply. That it applied to state health departments.

Well, what’s interesting about the Montalvo case is they basically said that because the State of Wisconsin fulfilled the requirements for getting state/federal funding under CAPTA, that, in fact, the federal language of Baby Doe applied to individual treatment decisions.

Now, whether or not that’s a correct or incorrect legal interpretation, the point is that's what the court did. And they pointed out that, in fact, this bars the withholding of medically indicated treatment, except for the indications that I showed you earlier.

And so, therefore, the choice of withholding treatment — in this case, resuscitation of an extremely low birth weight infant at delivery — is exactly what CAPTA prohibits, in spite of the fact that there was nothing in there that was meant to apply to a 23-3/7 week's gestational age infant.

So the Wisconsin court applied it, even though there is no enabling legislation in the State of Wisconsin that takes the Baby Doe regulation language and applies it.

Now, to go one step further, there is even another case in Wisconsin — Burks v. St. Joseph’s Hospital — where the Wisconsin Supreme Court allowed a Plaintiff's claim alleging a violation of EMTALA, which is the anti-dumping legislation. If you come into an emergency room, you have the right to be treated.

Allowed a claim to go forward under facts where physicians did not resuscitate her 200-gram 22-week newborn. Now, I don’t know the results of this case. I hope it settled out of court. I’d hate to see what any court would say about this case. I would fear that.

But the very fact that the court decided to allow the claim to go forward I think illustrates the risk there is of applying these federal regulations in this arena.

Here was a quote from the Wisconsin court, which I guess I would agree with, given what they’re doing. “If treating physicians can be sued for failing to resuscitate a baby they feel is not viable (Burks), and for resuscitating a viable baby (Montalvo), they are placed in a continuing 'damned' status. The public policy of Wisconsin does not tolerate such a 'lose-lose' enigma.”

Now, lest we think this is just the State of Wisconsin, here is a quote from the Secretary of HHS, April of this year. “DHHS will investigate all circumstances where individuals and entities are reported to be withholding medical care from an infant born alive, in potential violation of federal statutes for which we are responsible.” Two of which are the ones I’ve just shown you — CAPTA and EMTALA.

This Act, which has its intent I think to enforce, if you will, appropriate care for infants born right at the limits of viability, whether that’s palliative care or otherwise, defines "born alive" as an infant at any stage of development who breathes or has a beating heart or movement of voluntary muscles, which would, in fact, include a 22-week gestation, 200-gram fetus, because they likely would emerge, if they emerge intact, from, say, a miscarriage with a beating heartbeat.

Now, maybe the courts just could help us with this best interest standard. This is a quote of two courts. One is the Wisconsin court; the other is the Texas court. This notion of best interest, which
is problematic and I think would require a fair amount of flushing out. Others have written about its interpretation, particularly Loretta Kopelman, and pointed out difficulties in interpretation.

But here is what two courts said. Wisconsin — there is a presumption that continued life is in the best interest of a patient. Absent proof of persistent vegetative state, our courts have never — my emphasis — never decided it is in the best interest of a patient to withhold or withdraw life-sustaining medical care. Again, any life-sustaining medical care, not — we’re just talking any.

And then, in Texas, it is impossible for the courts to calculate the relative benefits of an impaired life versus no life at all, reminding us of some of the debates around the wrongful life discussions.

preparation for this talk, I sent around some e-mail r to colleagues in different states who I knew who were involved in either neonatology or critical care, to say, "Well, what issues do you think are important to you? What should I" — and this, by the way, was at the top of everyone's list, the issues surrounding, if you will, value of outcomes or quality in a palliative care setting and in intensive care.

But here's some quotes from the person who responded back to me from Wisconsin. With the Montalvo case, and now an EMTALA case, there is concern among hospital risk management that these rules make it illegal to provide any form of palliative care to infants. Any form of palliative care to infants.

We were once told by our district attorney that if we were to withhold or withdraw a trach vent from an infant with quadriplegia from an unknown C1-C8 brain stem lesion — essentially it liquified. I'm not debating about the merits of this case, but I suspect it would be extended to others — that based on Edna MF, the case I showed you, we would be committing criminal homicide.

And for those physicians in the audience, you'll know that your malpractice covers civil litigation, not criminal. You’re on your own if that happens.

So let me give some personal reflections on technology, and this is where I’m going to be sort of leaving, if you will, the sort of legal and political realm and getting into a bit more personal reflections based on my experience in applying technology in the intensive care setting.

So back to this notion that technology is not value neutral — I think there is a bias or a moral blindspot that is created by this assumption that technology is value neutral. First of all, it emphasizes the functional aspects of technology and obscures an understanding of social context.

The application of technology includes values and presuppositions that shape that technology and reinforce professional control. For example, by doing a tracheostomy and going onto a ventilator, you become a patient in a long-term ventilator-tracheostomy program.

There are certain moral assumptions and values that take place within that program, that if you don’t go into it knowledgeable about those values, you may find your choices highly limited, or the only choice being to actually leave that culture or environment if you feel that the values you have are emerging as different from that particular care environment.

Now, this is taken from the work of Barbara Koenig, where she pointed out that the technological imperative, if you will, to apply this technology is transformed into a moral imperative. She is talking about plasmapheresis through a social process where technology becomes habitual or routine, even absent any evidence of therapeutic benefit.

Now, there currently has been studies about the therapeutic benefit of plasmapheresis in some limited conditions. But long before we had any of those studies, plasmapheresis was felt to be morally and technically required for certain conditions, absent any data to support efficacy in that context.

So what about technology and end-of-life care? The role of value — and I picked this language of value and burden and benefit to avoid the language of quality of life, which I think can be controversial and often open for misinterpretation. So one issue is: what are we choosing?

This is influenced by one of my mentors in my graduate studies, Arthur Dyck, who wrote an article called "Bene Mortasia," where he basically said that what you’re choosing is not death, but you’re choosing of how to live while dying, even if, in fact, the process of dying is quicker under that circumstance.

In the intensive care unit, technology often turns dying from a recognizable transition to an indeterminate ordeal. There are many patients who die in our intensive care unit where it’s almost
impossible to say where that transition took place, even if — from the moment of application of the technology to the moment of death can be three months, where that transition takes place.

We can say when they're dead, and we can when they're not, but where they transition into dying as opposed to hopefully surviving on our technical care is a very difficult time, very difficult perception.

The whole argument of removing technology if not medically indicated — in other words, restricting it to that — it restricts removal to narrow technical criteria. So, for example, a ventilator corrects respiratory distress and physiologic dysfunction, if, in fact — I mean, it's indicated if you need a ventilator, independent of the quality of life or what you want from that ventilator.

So if you ask me, "Is it medically indicated?" yes, it is always medically indicated if you have respiratory failure. So if you're telling me I can only take it away for that reason, then you're restricting me and the family I'm working with to either removal under narrow technical criteria or you're asking me to sort of hide, if you will, my assessment of quality of life behind a sort of veil, if you will, of technical criteria, which Robert Veatch back in the discussion of spina bifida called a technical criteria fallacy.

In other words, this was in response to the Lorber selection criteria, where quadriplegia — I’m sorry, paraplegia, a high thoraco-lumbar lesion was in that list. And he said to hide your moral judgment about life in a wheelchair behind these technical criteria is a technical criteria fallacy.

That’s potentially what we would be risking, if, in fact, we limit it to medical indications. And so I would argue that avoiding any explicit discussion of the value of an anticipated outcome for a child’s future life risks reinforcing professional power and authority in the application of that technology and disempowers parents.

So religion and technology — these are what I would call broad sociological generalizations, just based on my own experience. Generally, the practice of religion in the United States is characterized by harnessing technology for religious purposes, supported by notions such as dominion. We could have a long discussion about notions of dominion and the harnessing of nature, if you will, but Protestant ethics, spirit of capitalism, etcetera, but it — that’s a starting point.

I hesitate to lay that out in front of this audience, knowing that that’s sort of out there as a nice — it’s got a big bull's-eye right in the center of it. But we'll keep going.

Religious language has been incorporated into the technical practice of medicine. For example, the Miracle Modern Medicine and Children’s Miracle Network is, in fact, the name for the agency that does primarily a large amount of fund-raising for a group of Children’s Hospital. Very worthy fund-raising, but we are creating miracles.

Recently, I would argue there is a growing emphasis on right belief or orthodoxy, rather than faith or engaged response. And the question I then ask is: to what extent have the values and beliefs of technical interventions supplanted the values of religious faith?

There has been a shift in 30 years from instrumental to intrinsic good. What happened? Two quotes. 1957, Pope Pius XII was asked by a group of Italian anesthesiologists, "Can we remove someone from a ventilator?" His answer was, "Life, health, all temporal activities are, in fact, subordinated to spiritual ends."

There was an article published in *Issues in Law and Medicine* in 1987 on the topic of withholding fluid and nutrition, and in that was this particular quote. It was signed by a large number of theologians and ethicists. "Human bodily life is a good of the person, not merely for the person. Such life is inherently good, not merely instrumental to other goods. Thus, remaining alive is never rightly regarded as a burden."

So somehow we’ve come from what I would argue is an instrumental view of the importance of, if you will, biological life, to an intrinsic view of its value.

What happened? Well, that article needs to be set into the context of the debate about the withholding of fluid and nutrition from Nancy Beth Cruzan. That’s what it was particularly written in. You'll notice the dates there — it was 1987 when it was published. I think the Supreme Court case was decided in 1986 or 1987, around that time, but that's basically the context for this debate.

So I’d argue that what is happening here — and I don't mean to get into issues of abortion, which is not really our topic — but what has happened, and I would also agree with some philosophers, whose justification for abortion would lead people to be rightly concerned that they could justify
infanticide.

Is a view of a transition and a continuum, if you will, among all of these various issues — abortion, infanticide, and euthanasia. I have just selected some dates — Roe v. Wade, 1973; Ronald Reagan, Baby Doe, 1982, when Baby Doe was born; Baby Jane Doe, which was another case that led to the Supreme Court affirming the right of parents to make a decision in the particular case of Baby Jane Doe in 1986; Cruzan in 1990 — there is the date of the Supreme Court decision — and then, in 1994, Republican control of the Congress.

Here is a quote taken from a blog around the time of the discussion of Terri Schiavo. The point here is — that I want to make is that about Terri Schiavo, but about the link between all of these different cases. So when we get to a discussion of the limitation or withdrawal of life-sustaining treatment in popular culture, all of the various issues of abortion, infanticide, and euthanasia, are seen in a continuum.

One challenge is: how do we break that? Because I see them as very different issues, very different issues indeed. How do we break that? And what kind of language can we, as a society, capture to break those links?

Now, let me make some final comments before my concluding remarks on Groningen Protocol, published in the New England Journal of Medicine. Here are the three categories of infants that it was proposed that that would be applied to — those with no chance of survival despite optimal care.

Here, although there are many infants that we might support, many children we might support for a long time, I think anyone would agree that if, in fact, that support becomes useless, that in consultation with the family we would withdraw support. And they would die quickly.

The second group — depending on ICU care with a poor or a grim prognosis. Again, if there’s a decision that the burden and benefit of treatment, as mentioned before, you affirmed in adults, we, of course, would decide to limit or withdraw that support in usual practice. Open question whether in Wisconsin you could do that as a legal question, but that’s what we do, and they would die.

It’s the third one that’s I think particularly controversial — those with a hopeless prognosis who experience unbearable suffering. And it’s that group that the Groningen Protocol I think was presented as applying to, where, in fact, they sought what I would call a technical end to suffering — 22 cases where they published.

Now, personally, two comments here. I think it’s a problem. I think it’s seeking a technology to end something that is not a technical issue. My conversations with parents, as much out of my own beliefs, if appropriate, is that all of the children in my ICU are suffering, even those that will recover, and that the issue is suffering to what purpose, that I have a technology that I can, in fact, treat pain. I have a technology that I can, in fact, treat agitation. I don’t have a drug for suffering.

So there is, you know — so the ability there is it allows me, if things don’t go well — in other words, if that purpose becomes suspect, over time it allows me to transition to a discussion of the purpose of that suffering without having a big sort of shift in frame of reference. But that’s my own sense.

And deciding to choose death or to hasten death to end suffering is not something that I would support.

So let me make some concluding remarks. Somehow, we need to bring what I would call life to the end of life. We need to acknowledge the values that drive our medical technology. We need to appreciate the relationship between these goods of medicine — the technical good, the good of the patient, and the ultimate good.

We need to foster the good of the patient as the purpose and goal of medicine, not reduce it to just technology, because we fear that discussion, which is what’s happening I think with the extension into eschewing any discussion of quality of life in end-of-life issues in pediatrics.

We need to help patients and families through their, and our, experience of suffering, and the purpose such suffering may serve. We should respect the diverse religious and cultural values that inform the experience of illness, dying, and death. I have made an argument, both locally and nationally, that we should respect, for example, religious objections to brain death determinations, death on neurological criteria.

The New Jersey law allows that. We often get patients from New Jersey to Children’s Hospital of Philadelphia, and we respect that parental determination.
We should seek relief or detachment from suffering through setting aside our attachment to medical technology. And we should nourish the wisdom to use technology in a way that does not obscure our vision of the ultimate good, which I would argue I think is happening to the extent that I believe that technological values are actually corrupting, in some way, spiritual values.

And then, finally, to hold children and their parents hostage. My intent here is to be proactive — to hold children and their parents hostage, condemned to a life of suffering for no apparent purpose, because we feel obligated to fight a rear guard action against the introduction of moral values above and beyond those of the mere perpetuation of biological life is immoral, rather than respecting life, such an unrestrained imposition of medical technology desecrates life.

Thank you.

CHAIRMAN PELLEGRINO: Thank you very much, Dr. Nelson.

We can begin discussion of Dr. Nelson’s paper. Anyone want to begin? Thank you. Gil?

PROF. MEILAENDER: Yes. I don’t know whether this is the most important place to begin or not, but it would help me if you could give a little more specificity on something you said very near the end. You said that technological values are corrupting spiritual values.

What sort of spiritual values do you have in mind?

DR. NELSON: The place I would start I guess is to go back to the balance between what I called an emphasis on right orthodoxy versus faith. And this doesn’t happen all the time, but my impression is that there is both a social and cultural emphasis, a religious emphasis, and in the minds of some parents, depending upon how they’re advised by their religious advisors, an emphasis on what should we believe in this context, that somehow, you know, what is God doing, what is God not doing, what can we learn from this, etcetera, as opposed to, in my view, trying to appreciate the meaning of that experience from a perspective of faith.

Now, that — I’m being somewhat obscure, I realize, but I’ve occasionally tried to talk with families about, you know, if the relationship justifies sort of going in this direction. It’s not all the time. I don’t want you to think that I do this a lot.

But, for example, the differences between faith, hope, and love — I mean, I’m — as I talk with families, I’m — I encourage them to think more about how they should respond about the treatment of their child out of love, and try to show them how that parental love in some sense may guide them better than some notion of what they ought to do as dictated by, I would view, a sort of misplaced emphasis on orthodoxy, depending upon their religious perspectives.

So those — I mean, it’s — I mean, I guess that’s part of the discussion that would have to take place. I don’t — you know, I’ve talked about that with individual families, but that would be part of the discussion.

PROF. MEILAENDER: Well, if I may just press it a bit, wouldn’t you think there might be circumstances in which my sense of what I ought to believe should appropriately temper various feelings that I have, which I, at the moment, think may be loving?

I mean, there is no imprimatur placed on my feelings at any given time, and it may be that they need guidance and discipline, and so forth. It just seems to me that whole process is considerably more complex than setting sort of right belief against right feeling. And so I’m still a little confused. These seem to be both spiritual values, which generally exist in some sort of complicated interaction.

DR. NELSON: Agreed. And the last thing I would want to be — have happen is for you to misinterpret me to argue for a sort of Joseph Fletcher approach against a Paul Ramsey approach. No, I'm not going there. The problem is that this is just not a conversation that we — I mean, if we tried to carry this conversation, you know, outside of the bedside conversation, where it’s a much more nuanced and complex discussion into a more broader social conversation, my fear is it would get polarized immediately into the kinds of issues that have made it very difficult to approach — cases such as Terri Schiavo, which was really not about her but about a lot of other issues.

So that’s my fear. I mean, at the bedside, yes. You know, personally, I mean, I — you know, I can respect, and we do respect as a group, for example, a parent’s objection for religious reasons to declaration of death on neurological criteria. From other people’s perspective that’s the ultimate futility in the provision of treatment. I’m treating a dead person.
But, you know, I’m not arguing here that there is one belief that needs to stand. In some sense, it’s that we need to appreciate the plurality of that belief and be able to foster that in a context where there seems to be a single sort of orthodoxy now that is coming through the court system.

**PROF. MEILAENDER:** Just once more, and I will stop then. But you did not — you said that you did not think that it was appropriate to deliberately intend to end someone’s life simply in order to relieve their suffering. And so I take it, then, that the fact that in some hard circumstance I am drawn to that, and I feel that that sort of would be the loving thing to do, doesn’t trump for you the right belief that that would be the wrong thing to do.

It just seems to me that — in other words, I — there is probably some point at which belief shapes end gauged response, to use your language, and so the issue isn’t really one about whether, you know, the right spiritual value is engaged faith versus orthodox belief. The issue is under what circumstances is there a belief in shape — in place that’s sufficiently strong that it should govern response.

**DR. NELSON:** Let me complicate my position a little bit further. My statement that I would not do that it isn’t much shaped in my role as physician. All right? We could get into a much longer discussion about whether assisted suicide in other contexts is or is not appropriate. So, personally, I think the last people that should be doing that are physicians, given all of the discussion you had about the importance of talk and the lack of talk.

But, so some of that is shaped by my view of professional role, and that would have to sort of nuance that conversation.

**PROF. DRESSER:** Skip, I think you made a point that I don’t know if anybody would disagree with, which is that when you try to write rules on these complicated issues, they are likely to be misapplied. And, you know, we just went through some of these — the process of trying to think about when it’s appropriate to withhold or withdraw in people with dementia.

And we ended up talking about a standard that we called best care for the patient now here. And in terms of describing that, there were some statements of “here’s what this would mean in the abstract.” But we went through some cases, and we talked about how one person might think that this is the best care for the patient now here. Another person might think this is, but these are all sort of analyzed and presented in a sort of a case-based reasoning approach.

I wonder if you think there is a better way to do it, or do you think that there is a way to write rules that would work in a satisfactory way? If not, it seems we do have to rely on discretion at the bedside.

And is that better, do you think, than trying to write a rule? I’m just wondering, how would you apply your thinking in this presentation to figuring out a way of approaching these cases as a policy matter or as sort of putting forth some ethical principles? I’m just not quite clear on that.

**DR. NELSON:** This is one of the difficulties is sort of where we are now as opposed to where we’ve been. I think it’s important to protect discretion at the bedside. Do I think it’s important enough that I would then sanction unethical decisions? No. And so the challenge is how you tease those apart.

The story I’ve told you, which is playing out in Wisconsin, which is not playing out in other states, but I think that’s not because it couldn’t, is where those rules are basically intruding into an area of discretion, where I don’t think they need to intrude, nor were they intended initially perhaps, nor should they.

I agree with Norm that a lot of the activities that have taken place in hospitals around ethics committees I think sort of, by and large, brought a lot of those decisions out into the sunshine, if you will, at least locally, not broader. So it’s unclear to me at this point that we need more rules as opposed to sort of a rollback.

And the only way I could understand or begin to say, ”How could we have that happen?” would be to foster a conversation, which I could see this group is trying to do, around the very issues that we were just talking about. At this point, you cannot meaningfully — you can talk with a parent about this.

I mean, you can conceive of how you could talk meaningfully about the value of continuing the treatment we’re doing, the burden of that treatment, the benefit that we might achieve, the outcomes that we may expect, the chances of those outcomes, etcetera. That we can do at the bedside.
I don’t see us having that meaningful conversation in a broader society, which I mean includes the society that parents run in. It happens in professional journals, but it’s not happening in a way that seems to be impacting on the interpretation, if you will, of laws that exist at state and federal levels, etcetera, and the like.

I mean, I can’t imagine that the Montalvos think the result of that case is a good one. I would hope not. It’s exactly the opposite of what they had hoped.

I don’t know if that’s responsive, but I guess it’s more about conversation and less about regulation — how to capture that kind of language, so we’re not, then, back into a debate about abortion and infanticide, but about how we can meaningfully talk about reasonable decisions about the application of our technology.

CHAIRMAN PELLEGRINO: Dr. Lawler?

PROF. LAWLER: The questions remains, though, how much rollback, assuming we need rollback. For example, in your slide on page 10, I like Pope Pius XII, and I am guided by him in many ways. Nonetheless, he can’t guide American law, actually. And under American law, spiritual values really don’t trump the right to life. The right to life stands as its own bottom, so to speak.

So the abuse that brought these Baby Doe regulations into being was parents choosing to think that someone who has Down’s Syndrome has an unacceptably low quality of life. I think you and I agree that that decision is not only unethical, it probably should be illegal. Not unethical in some abstract sense, but it should be against American law.

Now, if that decision is — should be against American law, then how much discretion can be allowed to compromise life? I mean, I — you know, surely some discretion I guess. But it’s not — I don’t think it’s enough to say all of this can be decided by conversation, because conversation has to be bounded by law, and law has to be based on respect for the right to life.

So how much discretion would you allow, given, in your opinion, we need more?

DR. NELSON: Well, I certainly wouldn’t end with conversation, and ultimately there would have to be some way of carrying that into legislation.

The Baby Jane Doe case in 1986, which the U.S. Supreme Court actually affirmed the right of a parent to make a decision to withhold in this case surgery. It turns out I think she survived; I don’t recall how long — but as sort of part of parental rights.

Now, you know, that’s sort of a parallel history to some extent from the regulations. One of the difficulties is Congress is not supposed to practice medicine. I mean, if you look at the — if you look at the proposed rule, there were a lot of cases in it. The final rule, there were no cases.

And so you end up with these principles that are divorced, where you and I might agree that it would be appropriate for a parent not to decide to treat a newborn who would meet the disabled newborn criteria by the Baby Doe regulations. But by the regulations themselves, in applying them, that’s not a readily apparent interpretation. And that’s the challenge.

Right now, they are divorced of cases. They stand in a way that explicitly eschews any discussion of quality, which, in my view, is precisely what we as physicians are about, not just biological life. All right? But then, how do we get that in a way that is not discriminatory I think is important.

And that’s a conversation — you can say, no, I don’t want to end with conversation, but that’s — right now, it’s polarizing. Right now, as soon as you bring up that topic, it’s polarizing, as opposed to trying to discuss the values that allow us to say, well, you know, that’s really not what we had in mind.

I don’t — you know, if I had a solution to that, I guess I would have very quickly written it up and sent it somewhere to publish. I don’t have a solution for that. It just strikes me as a problem that — that exists there at this point in a very polarized society around these issues.

CHAIRMAN PELLEGRINO: Leon?

DR. KASS: Let me try, on the same — on this same subject — I think I share your sense that a certain kind of rigidity leads to decisions that everybody present would recognize as somehow wrong, at least that’s their common sense, and that one is imposing — one is behaving in a kind of cruel or inhumane way, simply to uphold a certain kind of principle.
I mean, I — let's at least stipulate, and I think that could be part of your resistance to the rigid adherence to a certain kind of never or always. And let's also agree that it's not just scare tactics, but — and it's not just the polarization of a society that would lead one to be concerned about how it is we actually justify the withholding and withdrawing, because, I mean, Norman before talked about it's in the best interest — sometimes it's in the best interest of the child not to be here.

That's a funny thing to say without politics. I mean, it's a strange thing to say, especially on behalf of a child, but never mind. So you were groping for a way to articulate so that other people could understand your reasoning or your justification, when it is that it makes sense not to use life-sustaining treatment.

I'm not sure I understood exactly how operationally — how you would make operational this very nice intuition about the difference between choosing death versus choosing how to live while dying — a distinction to which I am quite friendly. But as you so point out, in the presence of devilish interventions, the transition to being in the process irretrievably of dying is opaque.

You want to get away from talking about quality of life language, and yet it seems to me you are stuck. Unless I've missed something — and we've struggled with this at the adult end, and, as Rebecca said, with patients with dementia. We all have a certain sense this is — this is cruel — these interventions are cruel and nonsensical.

And if you say, "Why?" can you give an answer that says otherwise, says something other than that? This patient's life is not worth living any longer.

It didn't come out all that well, Dr. Nelson, but I'm — I'm looking for a way in which we could not simply go on our gut instinct in these matters, but to try to articulate in communicable form so that other people could say, "Yes, I see that, even if I don't agree with you."

DR. NELSON: I think one of the reasons why I wanted to initially sort of avoid quality of life language is I didn't want to have what I was saying sort of immediately fall into the sort of polarizing positions around quality of life.

DR. KASS: Right.

DR. NELSON: But that language is, in fact, the language that you might use at the bedside, maybe not those words but things such as the child would no longer be — certainly, in the pediatric ICU will not be the child you knew.

DR. KASS: I'm sorry?

DR. NELSON: You know, the child — the child will not be — it will no longer be the child you knew. I mean, those kinds of language about transition, often in terms of neurological damage, even if one is anticipating possible survival, and the like.

You know, if you look at limiting or withdrawing support in the intensive care unit specifically, and to some extent in the neonatal ICU, the bulk of it is around resuscitation. Literature suggested anywhere from 40 percent to 70 percent or higher of children who die in an intensive care unit die in association with some limiting or withdrawal of support.

The bulk of that is simply deciding not to resuscitate, so they die. Then, you've got not escalating. You've pushed the envelope as far as you can push it. It can't be pushed any more.

Then, you've got the taking away of pressers and extubation. That's actually less likely. So the kinds of decisions we're doing we think of — and fluid and nutrition I could think in my — you know, over the last 15 years count on one hand the number I'm familiar with. And I've actually never recommended that to a family.

So we talk about those cases, but the bulk of it is just deciding not to apply fairly simple resuscitation technology. Quality is part of the language, and the value of that life going forward, the burden of the treatment to get there, that's what we do. I'm perfectly happy with discussions of excessive burden for achieved benefit, but I don't read any of the things that I showed you as allowing that language unless we protect that discretion.

And so the issue is how to do — how to protect without losing of ground. I agree that's a challenge, but that's I think what has to be done, somehow protect that discretionary space.

One final anecdote — the interpretation of what's going on in Wisconsin certainly is often the advice of general counsel in other institutions and other hospitals where they will say, "Well, if you do that,
even if it's agreed to by the physicians and the parents as reasonable, if you do that, you will be in violation of these regulations, and you could go to jail.”

Even if, in fact — I know Norm points this out when he talks on this topic — there is no such case of anyone, if you will, going to jail for violating what would be perceived as a strict application of the Baby Doe regulations. There is no case, but legal counsel in hospitals often gives that advice.

DR. KASS: May I just follow up? Leaving the law aside and just sticking on the plane of ethics for a moment, are there — you talked about resuscitation, and there you could I think easily speak about the possible burden of the treatment itself.

Are there cases where you would make a decision not to resuscitate, which would lead you also not to give antibiotics in the presence of an infection? And if not, why not? In other words, if you've made the determination that this is a life in its trajectory to the end, how would you set about distinguishing those two cases?

DR. NELSON: I guess I would not start where you started. The conversation I would have with a parent would be that what we're interested here is in the — if you will, the quality of the experience of that child for whatever period of time that child is with us.

And if the provision of oxygen helps, even if it — if it helps the experience, even if it might delay death, or the provision of antibiotics, depending upon what that may be for provision of fluid — in other words, if the focus is comfort at that point, my general approach — and by and large, I think most ICU docs — is to have sort of a — it's an a la carte menu. It's not — you know, it's not, oh, you're going to get it all or you're going to get nothing. It's taken on a case-by-case basis.

And there would be instances where you would — may not given antibiotics, and there would be instances where you would based on that difficult judgment. But I think that would separate — we have also had families who might for resuscitation perceive, for example, intubation as being invasive. But they wouldn't feel that way about chest compressions, because, you know, they've seen it on TV, and it doesn't look so bad, etcetera.

We know, as professionals, that that can be a very invasive thing to do to somebody. And by and large, my experience has been if you have a parent available at the bedside, as they often are, in the hospital, particularly in the pediatric intensive care unit, and they see that, they will tell you stop immediately because they didn’t realize that, in fact, it is as invasive as you’ve said it was.

So the reality is what they see. So all of those kinds of decisions I think are taken case by case and not sort of you get it all or you get it none.

DR. ROWLEY: Well, I hesitate to enter into this discussion, because much of it is in the area of ethics, where I don't feel terribly confident. But we have discussed over time here at the Council the issue of medicalization, and it’s always in the context of some living individual and that — like ADHD or all of the things that may be behavioral in children, which may be better left just to either letting the child grow out of it or other kinds of professional discussions with the child rather than drugs.

But it seems to me that in the neonatal intensive care unit, particularly as technology gets better, we're going to be able to keep more and more preemies of lower and lower birth weights alive through medical technology, and then you have to ask, what really is the cost to the child involved, the infant involved? What's the cost to the parent? What's the cost to society?

And we were pushing — or I was pushing Norman to say, in terms of issues, that we really should talk about what are — are fundamental, broad, ethical issues regarding children — the cost of neonatal intensive care unit is enormous. And you think of what that could do for immunizations for children, for food for children, for professional help for babies in premature — in poor families, just to begin to get the minimum of care.

You know, I worry that what you're saying is that technologically we can do things. Then, if you follow the Wisconsin law, you are forced to use these costly technologies for children, and I think there are data coming out of the likely quality of life that a preemie of certain birth weights have in the future for mental retardation, for cerebral palsy, for long-term requirements of very strenuous care.

So I can't formulate this very well, but it — I'm on your side in terms of saying that the physician has to have some ability to use his judgment and help educate parents to what the future outcome of a child of — infant of 200 grams or 300 grams, even 5- or 600 grams, what is their long-term
expectancy for really high-quality life?

DR. NELSON: A couple of comments. First, I think if we want to look at the cost of intensive care, I think it's very important to do that in an intergenerational way. What do I mean by that? Sure. Neonatal intensive care is expensive.

But if you do it on the quality of adjusted life years, and you look at what you get — you know, the bang you get for your buck, you're talking about someone who survives. We'll get to whether they survive well, but someone who survives productively for a large number of years compared to, say, adult intensive care.

So I — I don't want us to think — I would hope we don't think of the resources we put into pediatrics as a zero-sum gain within pediatrics, because children are not getting what they need now. And if that's the case, we're not — we're basically robbing Peter to pay Paul. I mean, it just — that would be unfortunate.

And neonatal intensive care is highly effective, and it's highly effective, even if expensive, for a lot of infants. And so I would just ask you, then, to look more broadly intergenerationally about that distribution.

In terms of prematurity, I mean, the window that we've got now is that — neonatologists, if you look at surveys at least, and then you look at the biology, generally are uniformly in agreement that less than 23 weeks' gestational age, assuming accurate dates, etcetera, you just don't have a lung. I mean, until we develop artificial womb technology, that is not a fetus-born infant who will survive. It just won't happen.

After 24 weeks, the impact of surfactant, it used to be true that if you took, you know, 24 weeks, and then you took up at about 28 weeks, you could draw sort of a straight line, and mortality would just climb up that line.

Well, now, with surfactant, it basically goes skyrocketing in the first week, and then levels off. And so, basically, the survival of 24-, 25-, 26-week prematures at this point in time is phenomenal.

Now, can you predict which one of those will develop cerebral palsy, which one of those will get a bleed, which one — you know, the complicated — necrotizing enterocolitis, short gut, I mean, all of those things are not something you can figure out in the first 24 hours. I mean, if it's in the first — as I say to families, if it happens fast in an intensive care unit, it's bad.

All things that happen good in an intensive care unit happen slowly. So if in the first 24 hours some — I mean, something happens, yes, it's really bad. But, unfortunately, a lot of bad things happen late. So predictability becomes a problem.

The issue of quality of life is complex, and from whose perspective, how do you measure it. It's a very difficult life for families. It's a very difficult life for the parents. It's a very difficult life for the children. But you ask them, and it's not that bad. In fact, it's often pretty good, depending on who you ask. So it's a complex question in terms of quality of life.

So I guess it's — there was something else, but I've forgotten. If it comes to me, I'll say it.

CHAIRMAN PELLEGRINO: Dr. Hurlbut?

PROF. HURLBUT: This is a vague, very broad question, but you kind of introduced it. Just from your experience thinking about these matters, if you project out 50, 100 years from now, you can imagine technologies such as what you just mentioned, an artificial womb or various interventions, maybe very early on in the womb.

Does there come a point where medicine is sort of out of its realm? I mean, you — is there someplace where medicine is sort of an invitation but not an obligation? You know what I'm asking basically, right?

DR. NELSON: Well, I think — let me just see if I do. I mean, there certainly is a point at which we ought to be circumspect in our use and development of technology. But I think back to Norm's response on ADHD and drugs, you know, medicine is fundamentally pragmatic.

If there's a problem that people address as a problem, and you can discover something that fixes that problem that happens to fall sociologically within the armamentarium of physicians, it becomes a medical problem.
It could be done otherwise, I mean, if we so choose. We could take some of the things that physicians control as technology and let other people control them if we wanted to. That would be one of my solutions to the issue — to the issue of assisted suicide. I don't think physicians should control that technology. Whether anybody should do it is a separate question.

Now, you know, we have, for example, a fetal surgical program. Their patients — the mothers who come in with fetuses looking for treatment. Occasionally, they'll elect termination, but by and large they have decided that they're looking for treatment for their child.

And, you know, so it's extending down into that area. I can't imagine some of those technologies, but I suspect at this point, you know, unless — you know, it's really up to us to decide if it's a problem worth fixing. And once we do that and identify it and get a technology that can, in fact, help, whether that's in medicine or not, I mean, it's going to happen.

Medicine is fundamentally pragmatic. I don't think you're going to see physicians doing that. I think it's — you know, as a society, we certainly haven't shown any ability to control our health care — sort of provision of health care in any meaningful way, whether it's conceptually in the provision of resources or whether it's economically. It's chaotic. I guess it — so I hear what you're asking. I'm not sure what the solution might be.

CHAIRMAN PELLEGRINO: Dr. McHugh?

DR. McHUGH: I found your comments very interesting, but they often turned, again, on this issue of quality of life, the ultimate issues of quality of life and how we doctors know about it.

I wanted to perhaps get you to — draw you out a little bit more on the stakeholders that relate to quality of life, and ultimately the individual who has the greatest stake in it is the person who is going to live or die. And I was enriched by what you said about the value of neonatal care services and how they do produce people who are happy and content.

Perhaps put it this way. One of the real problems with us doctors is whether the technology begins to shape our character to the point where our character is no longer open to other people's experience.

Now, my encounter with that, my personal encounter with that, was the Hopkins program in sex change operations in infants, when it was believed — for no good reason and without any data — that the quality of life of a little boy born with calycle problems would be best served if his gonads were removed from him and he was raised as a little girl, and that human beings had such plasticity you could grow them up in either sex and it wouldn't matter.

And it was only when we insisted that there was contact from pediatricians to the young adolescent and adult girl/boy that we discovered that, in point of fact, those people felt themselves quite mistreated, and that they had been for the best of reasons, with the quality of life issues in — in front of them, that they had been fundamentally deprived of the opportunity themselves to decide what they were and would be, and that the doctors, instead of simply protecting them and making sure that they didn't have kidney infections through this, had decided what kind of life they would lead, and often on the basis of rather silly ideas about how an infant and child — a young child might feel about his genital structure during the time of development.

Now, are we — that's a long story, of course. But it brings me back to this question. Are we in the formation of our character, in the development of our care services, really consulting with the people whom we did serve to find out whether they think the quality of life they have, that might be different from the one that we have, is one that makes them happy? That's a long enough question.

DR. NELSON: Well, I agree with your story, if you will, about gender reassignment. And one way one could understand that story is it really was an n of 1 that got it all started. And as we began to appreciate the way that, if you will, bias prejudged the question of what the outcomes might be, and understood over time the impact of that, I mean, those biases are changing, but there is still a lot of debate around that issue.

We do have certain I think biases about what works and doesn't work, in terms of functionality, which you could also see as a predilection towards technology. And by failing to sort of do the kind of work in sorting out the impact of that in terms of outcomes, the kind of research that is necessary, that is sophisticated.

When I think of neonatal intensive care unit, I was having a conversation the other day with a neonatologist from Israel who was at a meeting this past week in Washington. It's called Hot
Topics. It’s the neonatal meeting that occurs every year.

And what he said — there was an exchange between a couple of parents in the audience and a researcher who is presenting quality of life data. And by and large, the quality of life data were things like, you know, how many kids that are born premature go to college, high school, I mean, those kinds of functionality things.

The comment of the parents was that there was a great disconnect between that information and their own experience. Now, granted, that is anecdotal to parents in the audience. I mean, it — obviously, highly selected to be motivated to go to a meeting of professional neonatologists, but that there was a disconnect.

But the important thing that I would take away from that is it’s not that research is unimportant, but the methods perhaps need to be more sophisticated, and that the conversation needs to include parents, of course, and ideally include children.

Another illustration I was asked — I did a project looking at what parents would think about a waiver of emergency consent for resuscitation research. I was asked the question as I was presenting that research, which I realized I didn't even consider. Someone asked me if we had — step back. That regulation requires community consultation, so we had consulted with parents as the community that would be involved.

Someone asked me, "Well, why didn’t you ask kids?" For some reason, it — for some reason, even as a pediatrician who asks kids many other questions, it didn't occur to me to do a focus group of, say, adolescents or eight-year olds around what they would want if their heart stopped.

I don’t know what the IRB would have done if I was going to do that kind of thing, but I asked them other kinds of questions. Maybe I could have asked that.

So, yes, who you go to — I mean, I think it’s very important that the perspective of parents and children be honored. In many ways, my concern is that the — that we've driven, if you will, such an overlay of the regulations that I've gone through, and of the sort of debate to where at the bedside is a great risk of being unable to honor the expressed wishes of parents, particularly since children often don’t have a voice, given how ill they are, in the intensive care unit, because of fears of the regulatory and legal environment.

That the desire of physicians is to, in fact, honor that, appropriately so, not inappropriately so. And it’s getting harder and harder to do that, and I think there's plenty of data that would support that shift. And I agree with Norm that it’s a shift from undertreatment to overtreatment, and somehow we need to get back — you know, sort of recapture the ability to have that conversation.

DR. ROWLEY: Well, I would like to just follow up on this, and then tie it into my earlier question, because it seems to me with regard to the view of parents who had children who were premature, and particularly those that were very early premature, there must be more than anecdotal data on what kinds of stress, if any, those parents had.

Now, I was shocked by Norm’s statement that in child abuse one-third of the children who are abused are premature. And so I think that it would be useful in this discussion to have some sense of what the outcome is for those children, and I did bring up parents and families and what the impact of prematurity and level of prematurity is within the family.

DR. NELSON: Yes. There is data that exists, but I think part of — I guess two comments. I think tackling the problem Norm identified, which is an important problem in my mind, is tackling the issue of preventing prematurity. It’s not tackling the issue of: should neonatologists have withdrawn or limited support in a group of premature infants? Because I suspect, even if we did that, the statistics would not change that he cited.

I'm reminded of a case that hit the press in Philadelphia where a caregiver basically beat a child with spina bifida because the child was not toilet-trained. You know, so the frustration — a) that shows a fair degree of ignorance, but the point I’m making is the frustration that parents who don’t have the kinds of home visitation programs that Norm mentioned, or the kinds of support that we ought to provide, when you're dealing with a child as they grow up who may have some limitations, whether visual or physical, because of the — just because of the circumstances of being born prematurely, even if those disabilities are not to the extent to which they are unable to sort of live quality, productive lives from their own perspective, that that kind of frustration I would suspect is a large part of the etiology behind the kinds of abuse that Norm mentions.
So that I would not tackle that problem by tackling the application of our technology. I would tackle it by tackling the prevention of prematurity and the support that we give parents that are — have babies born prematurely.

**DR. ROWLEY:** Well, but suppose the data say that the children — infants born weighing less than 600 grams have a 99 percent chance, or a 95 percent chance of severe cerebral palsy, severe mental retardation, and will lead handicapped lives for their — for as long as they live, and really severely handicapped lives.

Then, I wonder if neonatologists don't begin to wonder whether just because they can do something, and keep the infant alive, is this something that they should do?

**DR. NELSON:** I agree. But, unfortunately, the data is not quite so convincing. If we had 99 percent, I think there would be no disagreement, but the data — even with the sort of worst conditions, say, a grade four intraventricular hemorrhage, is more in the 70 and 80 percent, and so you get into a very difficult discussion about the statistics versus this infant. And it's a much more difficult decision.

Unfortunately, the data is not — doesn't drive the answer as clearly as that would. I don't think anybody would disagree.

**CHAIRMAN PELLEGRINO:** Unless there is an urgent question, I think we have reached the point where we need to break for lunch.

Thank you, Dr. Nelson, for a stimulating discussion covering some very, very difficult issues. I've been restraining myself. I have lots of questions along those lines.

I want to thank the audience and — particularly the Council members, and I think we'll return here at 2:00 to pick up other facets of this same range of questions in a little different direction.

Thank you very much.

(Applause.)

(Whereupon, at 12:34 p.m., the proceedings in the foregoing matter recessed for lunch.)

**CHAIRMAN PELLEGRINO:** Dr. Kopelman is our next speaker. I've known Dr. Kopelman for many, many years. Her involvement with these issues is well-known to all of us in the field. We have asked her to talk about additional aspects of pediatric ethics. And, as with the other speakers, I say that so she can go off in any direction that she thinks is important for the Council to consider, to cogitate, to take under advisement. So, Loretta, will you take us off into the wild blue or wherever you want to go?

**DR. KOPELMAN:** I hope it won't be too wild.

**SESSION 3: TAKING CARE: ETHICAL CAREGIVING FOR CHILDREN TOO**

**DR. KOPELMAN:** It is certainly a pleasure to be here, and it is an honor to be asked. It's particularly an honor to be asked by Dr. Pellegrino, whom I consider the father of medical ethics in this country.

I was asked to discuss issues of assent, consent, and permission for therapy and to some extent for research as well. And that is a huge topic. So I was trying to think of a way to limit the topic somewhat.

And what I thought I would do is use your own recommendations from Taking Care: Ethical Caregiving in our Aging Society and apply it to minors; in particular, your strong recommendation for individualized decision-making using the best care and best interest standard. I think that would be a wonderful standard to use for all minors in many of the same ways you recommended using it for individuals lacking decision-making capacity.

So my goals today I'll put under two headings: to discuss issues of consent, permission, and assent in making minors' health care decisions; and in choosing policies that support individualized choices using the best care or best interest standard, which is what you recommend in Taking Care.

The first topic is issues of consent, permission, and assent in making minors' health care decisions. Let me just say a little bit about language and the use of language here. Increasingly, the pediatric literature is talking about parents and guardians giving permission and reserving informed consent
for something the person does on his or her own behalf. So you give informed consent for yourself, permission to have therapy or research involving your child. And not everybody uses that language, but it's getting more and more common in the pediatric literature.

And assent means affirmative agreement for those who lack decision-making capacity. It does not mean they passively go along. It does not mean that they haven't objected. It means a positive agreement. And that's how the word is generally used as well.

Now, in the case of health care decisions and decisions involving research for children, the ideal is shared decision-making and consensus. Where clinicians and parents and the children all agree about what should be done, that is certainly where there is a discussion and an agreement.

That is the ideal. Next best is where there is a discussion and maybe it isn’t everybody's first choice, but everybody can go along with it. In many cases, that’s okay, too. There's a consensus about the plan.

Parents or guardians generally have wide authority to make decisions based on being most committed to their child’s best interest; most knowledgeable about them; involved for the long term, not the short term, not for one particular hospital stay but for all their care; and also because parents are most influential in fostering values and traditions that make us who we are, the kind of people we are. And because we generally think that's important that we have certain values and traditions that are a part of who we are and the decisions we make, we give parents or guardians certain latitude in the kind of decisions that they make.

Just to review the elements of informed consent or permission, disclosure of all material information, and in a therapy setting that would generally include diagnosis, prognosis, treatment options, and consequences, likely hazards for benefits.

In addition, there's understanding of the information disclosed. As the risk of the procedure or the research or the therapy increases, the more the clinicians has a duty to check and make sure that people actually understand that information, perhaps by asking them questions or asking them to use the information. This can be, this checking can be, important, particularly if it's a long-term therapy or research project.

People ought to know they participate voluntarily, they're not coerced, and that physicians have a duty to make sure the person giving permission or consent is competent to agree or deny participation, and that they actually agree or authorize the intervention, in fact, procedure, or research.

In research, there are additional elements of informed consent or permission. One is disclosure that it is research. As Rebecca has written, there is sometimes a misconception that therapeutic research is seen as therapy when, in fact, it is not of benefit to the particular child who is involved. And it would be important for people to address that therapeutic misconception on the part of those giving consent.

You're obligated to talk about the hazards or potential hazards or benefits of the study in and of itself, as opposed to what may be involved in therapeutic research. They need to know that the research is voluntary and that the alternatives to it are explained.

They need to know how confidentiality will be maintained, what compensation is available should they be injured, and who to contact to answer questions. And the institutional review board has the duty to make sure that these are fulfilled in a reasonable way. They may also add other issues, such as the cost of the study, if there are issues relating to pregnancy, dangers, or what will happen in the event of new findings.

As the risks increase, so should the safeguards for research involving children and others. And in "no benefit" studies, studies not designed to benefit the children, as the risk increases, there is more and more duty to check that the study is appropriate and within the rules.

Parents generally give consent or permission, both for research and therapy. For studies not funded by the FDA, teams can sometimes give consent for themselves for minimal risk studies without their parents' knowledge or permission.

In therapy and in some therapeutic research protocols, parental consent can be waived if, say, in an emergency situation. Parental and guardian authority can be challenged if they neglect, abuse, or otherwise endanger the child.
In the beginning of the Twentieth Century, children were generally viewed as property. Children are no longer viewed as property, as they were in the beginning of the Twentieth Century.

Parents and guardians could give permission for therapy or not for their children, as they did for themselves. If they made a bad decision, well, that was very unfortunate, but the parents owned the child. So it was their choice to make. You could try to talk them out of it, of course, but it was their decision.

In the course of the Twentieth Century, children obtained rights to have a certain threshold of care, independent of what their parents wanted. And guardians were seen to have duties to children if they abused, neglected, or otherwise endangered their child.

The most frequently used standard for persons lacking decision-making capacity, including children, is the best care or the best interest standard. I note I have included your definition of best interest. You have defined it as a legal standard. I would only say it’s also a moral standard of caregiving for incompetent persons.

You defined it in terms of what a reasonable person would consider in the same situation. A consideration of the best interest generally attempts to weigh the burdens and benefits of treatment to the patient in his present condition when no clear preferences of the patient can be determined.

I would only add to this. It presupposes some kind of consensus about what choices are unacceptable. I think if it’s defined that way, we can leave some flexibility in the best interest standard, rather than think of best as there’s one and only, one best thing to do, an ideal approach to take.

So it presupposes, I would say, a consensus about what is acceptable and what is not acceptable. And I think it is very hard to use without such a consensus.

Also, it’s usually said in this way as a consequentialist standard, but I would argue that it presupposes a framework of rights and duties as well, in which to use the best interest standard.

Sometimes it’s not clear what is the best care or the best interest. And I have incorporated in my talk three different cases, which are not high-profile cases, like those that were discussed this morning. These are all cases that house officers picked.

We have a monthly conference. We meet with the house officers. And each one at some time over the course of their three years as a pediatric house officer selects a case that he or she regards as particularly challenging that the house officer was involved with.

This is one of those cases. This is a house officer. She had been a house officer exactly three months when she encountered this problem.

J. R. was a 14-year-old boy with a rapidly progressing lymphoma and uncertain prognosis. The parents are from another culture, where competent adults are rarely told such a diagnosis, and insist they do not want the child told anything about the diagnosis or prognosis. They want other explanations given for the therapy he will receive.

When his parents are not in the room, J. R. asks, ”What’s wrong with me?” So what should this brand new house officer in pediatrics do? Any information you would like about this case before I move on?

**Dr. McHugh:** Well, I would like to know whether she knows anything about this boy other than his medical diagnosis and whether she has had conversations with him about his life and —

**Dr. Kopelman:** Yes. This is her case. She has known him since his hospitalization. She knows him well. She knows the lab findings. She has met his parents. She identifies this patient as her patient.

**Dr. McHugh:** I will go on a little bit more. When she was told these things by the parents that this is what they want, what did she say to them at that time?

**Dr. Kopelman:** She didn’t say much of anything.

**Dr. McHugh:** I see.

**Dr. Kopelman:** Now, there’s also an attending, who is not around right now. This is in the early evening. I’d say about, she said about, nine o’clock. And nobody is around, just her, the nurses, and
I should say that there are some studies that suggest 14-year-olds, particularly who have life experiences like this, are pretty good decision-makers, almost as good as most adults. They have capacities. And some studies find they have capacities similar to adults in dealing with issues like this.

**DR. ROWLEY:** I guess I would temporize with the patient and just say this is something that because she is in a junior position, she can say, "Well, this is something that Dr. so and so should really be talking with you about."

**DR. KOPELMAN:** Okay.

**DR. ROWLEY:** I think the other thing is that the parents really have to be educated, that it's going to be in everybody's interest in the long run, particularly if the patient goes on some kind of experimental therapy that's going to make him very sick, that the patient has to be involved in this. And they've got to learn that this is in their best interest as well as their son's best interest.

**DR. McHUGH:** Although I agree with that, ultimately, this, having things like this sprung on you, is not an unusual physician's experience. And most of the times, physicians answer promptly to this, saying, "I'm very distressed to know that this is on your mind. And we need to talk with your parents about why you are still worried about this."

if somebody says to you, "Where do babies come from?" 4 years old and you can't tell you, you don't immediately say, "Well, let me explain it to you. There's this anatomy and this structure and the like" even though they eventually have to know those things.

**DR. KOPELMAN:** Let me tell what happened. I mean, this is a house officer who in that situation, she just froze. She said she just froze. And the 14-year-old was good enough at reading the signs of that. And he said, "You know, don't you? Why don't you tell me?"

And so she probably should have said, "Well, I'll get together with you tomorrow. I'll get the attending. We'll talk with your parents." But she didn't. She blurted it out. She felt very badly about it. She didn't feel very pleased about her performance.

On the other hand, I should say that that 14-year-old bonded with her forever because she had told him the truth. So the two of them formed a bond, and that was really very important.

If she had said something like "I don't know," that, of course, would have been a lie or, at best, a deception, and she didn't want to go that route. So that's what happened in that case. And she wondered whether she had done the best for this boy.

Increasingly, in the last generation, last 25 years, assent from minors has been considered more and more important in therapy and research. It acknowledges their emerging self-determination and acknowledges that competence is task-related.

A lot of this grows out of social science studies about what children do understand, how they are pretty good at reading what is going on, even if people aren't talking to them.

And there's one set of studies from Dr. Bluebond-Langner published in 1978. This was her Ph.D. dissertation. She asked permission to go to a cancer unit and be like a fly on the wall and not interact, just be an observer.

What she found was an elaborate system of mutual pretense, where the doctors talked to the parents and nobody talked to the children but the children didn't want to make it worse for their parents by telling them they knew. They were trying to protect their parents. The parents were trying to protect the children by not telling them. And it was not making good sense.

The children were still trying to gather information by relatively ingenious means. They would post guards and steal the chart, which, of course, then was a paper chart. And then they would steal it and run back to their rooms and read it with flashlights under the covers or they would put tape recorders in conference rooms and have an elaborate strategy for how to turn them on while the discussions were going on.

And then they would inform each other, "Well, yes, of course, you've got cancer. This is a cancer unit" and what everything meant, what the different — of course, it was all wrong.

So they figured, well, it's probably better if they were talking among themselves that, actually, they
get good information, rather than bad information.

PROF. GEORGE: Dr. Kopelman?

DR. KOPELMAN: Yes?

PROF. GEORGE: How was this information gathered? She was a fly on the wall, and she observed them with flashlights — —

DR. KOPELMAN: She just observed —

PROF. GEORGE: — under the covers and —

DR. KOPELMAN: Yes, or they told her about it.

PROF. GEORGE: — stealing charts and things? Okay. Has this been replicated? I mean, why should we believe all of this?

DR. KOPELMAN: I think it certainly has been replicated that children know a lot more than they let on, I mean, that they can read people pretty well, when they're being truthful and when they're not. They can read cancer, you know, if they get over five or six years of age.

So there's a growing body that children do understand quite a bit of what is going on and that they feel very isolated if they can't talk about the things that trouble them.

PROF. GEORGE: Well, I understand that is what is being reported, may very well be true, but I am interested in whether we really have rigorous data. These kinds of things are put forward as scientific studies. I would like to be able to assess their credibility.

DR. KOPELMAN: There is a review in the Institute of Medicine research with children, quite a long chapter with a review, all the evidence for what children understand, who gets assent, when we should get assent. I don't know. They must talk about 50 or 60 studies in that chapter.

And some of them, the difficulty with children is that you need to make the information age-appropriate. And what you're going to tell a 14-year-old will be different from what you want to tell a 6- or 7-year-old.

But the people who do these sorts of things — I'm a philosopher. I'm not a social scientist — say that it does foster trust and cooperation, and it makes them feel less isolated.

The American Academy of Pediatrics recommends gaining assent from children when it's possible and prudent to do so. And the greater the benefit, minors' views should carry weight but not be decisive, as it would be for an adult.

And the greater the benefit to the child, the more justification for overriding a minor's unreasonable refusal or demands regarding therapy. Assent in research is generally required when it's possible and when there are no direct benefits to the child.

Many people write in "no benefit" studies the child's dissent should trump. And I would echo Norm Fost's skepticism about how often that really happens. A five, six, seven, eight-year-old isn't thrilled about getting stuck one more time or a spinal tap one more time or any of the other things that are considered minimal risk and no benefit research.

So, again, in this chapter on the Institute of Medicine, they review just how many times IRBs do have a mechanism for looking at assent and dissent. I don't think we get very high grades, but I think we are probably doing better than we did when Bluebond-Langner first started to do her studies.

Consent from older minors is sometimes permissible for treatment of some conditions; for example, treatment of sexually transmitted diseases, treatment for substance abuse. And also for some minimal risk studies, the FDA doesn't permit waiving parental consent, but HHS sometimes does.

This brings me to another case selected by one of the house officers. It involves a possible conflict between what the parents want to know and what the adolescent wants them to know.

K. L. is a 16-year-old female patient being seen in the adolescent clinic. When her mother leaves the room, she tells her doctor she has been having unprotected sexual intercourse and wants a prescription for birth control medication.

For a variety of personal and religious reasons, she does not want her mother told. Her mother,
However, has told doctors she wants all the information about her daughter.

Now, in this discussion of this case, everybody agreed this was certainly a teachable moment for the clinician to talk to this 16-year-old about, you know, "What are you doing with your life? Who is this person? You know, what is going on?"

But the question was, should they tell the mother? Should they not tell the mother? Should they write the prescription? Should they send her to the health department and kind of wash their hands of it? That was the case presented for discussion. I think this was about six months ago.

In the State of North Carolina, doctors may make these prescriptions without — it varies between the states, but they are permitted to do this without parental consent in North Carolina.

Any questions about this case?

PROF. DRESSER: Well, one of the things that I think would be important to think about and often I've just noticed in discussing cases like this about whether to impose certain things on children in the medical setting is how will this affect their long-term view of medical care and their trust in the medical system. So I think that's one factor that makes cases like this very difficult.

DR. ROWLEY: Yes. Well, I guess I would make the comment that this young girl is going to get pregnant sooner or later if she continues this kind of activity.

And then she is going to be in the situation either of having an abortion and trying to get that done without her parents' knowledge — I don't know what the rules are in North Carolina, but it's difficult in many states — or, alternatively, she then is going to have to confess that not only has she had intercourse but now she's pregnant.

And I think that at 16, she ought to be in a situation where she understands this. Clearly she understands it to some extent because she wants a prescription for birth control.

I think the other point that you raised in terms of trying to educate her about how her behavior is going to influence her whole life is something that really has to be hammered home.

I would agree with Rebecca that it seems to me difficult to tell her mother without the agreement of the patient.

DR. KOPELMAN: So you would honor confidentiality, tend to honor? See, I mean, we can all agree with the important values. The question in all of these situations is, which one do you rank higher?

Yes?

PROF. MEILAENDER: I have a question, and then I have a comment. What would be a religious reason for not wanting her mother to be told?

DR. KOPELMAN: Well, this is according to the resident. The daughter said that her mother belonged to a religious community where if someone had sexual relations outside of marriage or was unfaithful to a husband or wife, that that person was shunned and if her mother knew about her sexual activity and didn't tell the elders, her mother would be shunned.

Now, according to the resident, the daughter did want to separate herself from that community. On the other hand, she wasn't keen on being shunned. And she didn't want to have her mother be shunned either.

So she felt that that was yet another reason for honoring her confidentiality.

PROF. MEILAENDER: Well, I understand that. I think that would be very peculiar to call that a religious reason. It's a reason having something to do with her relation with her mother and that's affected by some religious commitments her mother has made, but one wouldn't ordinarily call that a religious reason. That's all.

DR. KOPELMAN: Fair enough.

PROF. MEILAENDER: But my comment is that I think it's just inadequate, finally, to take up a case like this simply in the language of consent and trying to figure out and confidentiality and so forth as if it's ever a purely individual matter with whom we're having sexual intercourse as if it isn't important in a society for us to know that this person is my wife and, therefore, not eligible to be
somebody else's wife. So that this is never a purely individual matter, in fact.

And there's something about the way taking up this case in this kind of context thins it out that loses considerations that are at least as important as consent and confidentiality I think.

**DR. KOPELMAN:** Well, the discussion among the residents centered on —

**DR. McHUGH:** Can I ask another question?

**DR. KOPELMAN:** Sure.

**DR. McHUGH:** To add to what Gil is saying, you mentioned that this is a visit in an adolescent clinic. We heard from Norman this morning that pediatricians talk for about 90 seconds to people. Was this a situation in which 90 seconds of talk was provided and then, after that, this decision was made or is this, once again, this individual's natural concerns in life and the issues of her worries and fears were going to be explored by this group in the adolescent clinic?

**DR. KOPELMAN:** The house officer — I can only tell you what she said. I was not there. She said that it was an occasion for a discussion, not a 90-second visit.

I asked her, "Well, who is this person she is having unprotected sex with? You know, is it a 30-year-old neighbor or a 16-year-old high school student or who are we talking about here?" And she didn't ask that question.

So I can't answer that because this is a real case and the resident didn't ask the question. So I can't tell you that part of it.

He did try to talk to her. She took the issues to be issue fidentiality and also was this young woman functionally competent to make this decision. I think Dr. Rowley has suggested that if you're going to be sexually active at 16, it's probably a pretty good idea to use birth control. I'm not sure the resident was able to sway her, talk her out of this.

So here I picked this case. I didn't mean to spin anything out. It is a real case. The resident has a choice. The attending has a choice to make within the framework of the current health care system, where you don't have a whole lot of time to talk to patients and what value you're going to put forward.

It is the case this resident picked out. So it was a case which troubled her. There were certainly people in the group who thought that it was terrible that she was having this sexual intercourse outside of marriage. And they were more sympathetic to talking to the mom. But I think there were only one or 2 people who expressed that view in a room of about 45 or 50.

Yes?

**PROF. GEORGE:** Well, I agree with Dr. Rowley that if she keeps doing what she is doing, she is going to get pregnant. If she is given birth control devices or pills, she will be far less likely to get pregnant, although she may, nevertheless, get pregnant because of the failure rate. The only way she is not going to get pregnant is if she stops doing it.

Now, was it assumed or, for some reason, believed that the mother if armed with the information about what her daughter was not herself competent to prevent her daughter from continuing to engage in this behavior?

**DR. KOPELMAN:** I did not have that impression from what the resident said. I had more of an impression that there was already some tension between the daughter and the mom because the mom is saying, "Now, you tell me what is going on with my daughter." That was sort of that was my impression. And the house officer felt like she was kind of trapped between the mom and the daughter.

**PROF. GEORGE:** But it wasn't out of the question that the mother might very well be competent to handle her daughter if she had the information.

**DR. KOPELMAN:** Maybe.

**PROF. GEORGE:** The second question I had is, would it materially change the thinking of people confronted with something like this if we had one additional fact, and that is the person with whom she is having sexual intercourse is her mother's boyfriend?
DR. KOPELMAN: Well, that's why I asked at the conference. I said, "Who is this person?" I mean, it would certainly make a difference, as far as I'm concerned, if it was someone who was, say, four or five years older.

PROF. GEORGE: Well, that was going to be another question.

DR. KOPELMAN: In North Carolina, that is grounds if it's a minor for rape, not statutory, rape, if the —

PROF. GEORGE: And would the person who came into possession of the information be required to report it to the authorities?

DR. KOPELMAN: Yes, if it's abuse and neglect.

PROF. GEORGE: And that would be —

DR. KOPELMAN: I'm not an attorney either.

PROF. GEORGE: No. I understand.

DR. KOPELMAN: I am not a social scientist. I'm not an attorney.

PROF. GEORGE: I understand. And the same would be true if it were incestuous so that it was not the boyfriend of the mother but the father of the girl?

DR. KOPELMAN: Yes.

DR. McHUGH: It seems to us or at least to me that you need to instruct the residents on how to interview patients so they get the pertinent information. It would help them a lot in how they are deciding.

DR. KOPELMAN: I think that is true, but they're not my residents. I'm medical humanities. But I think the value of these cases is that all the residents, the 45 of them sitting in the room in the faculty, say, maybe for next time they'll think to ask a question, "Well, who is it that you're seeing? Is this someone who is five or six years older than you?"

And frequently we don't — I mean, clinicians have to make decisions with — they don't have the full story and they have to make a decision based on what they have before them.

DR. McHUGH: Well, that is ridiculous. Physicians are supposed to get the whole story before they do something that is significant. You have to get a whole story about somebody's abdominal pain before you take a knife to it and, similarly, to their lives themselves in the process of really winning the trust that you want people to have for the profession.

DR. KOPELMAN: I take your point. On the other hand, the 16-year-old may not tell the truth either. So you're not going to get the whole story without winning her trust beforehand.

DR. McHUGH: That's a standard issue and a standard problem that develops out of an interactive process done by sympathetic people —

DR. KOPELMAN: Right.

DR. McHUGH: — with individuals of this sort by making it clear to them that there are issues in this matter that are important for them that the doctor could perhaps help them with.

DR. KOPELMAN: I think something I should have said earlier, of course, consent and assent are not an event, not a form. It is an ongoing process where you win trust and you learn more information.

And if this house officer sees this young woman again, maybe she will hear more of the story and will win her trust and confidence. I think the point here is that the involvement of the adolescent is important. Their capacities are emerging. Their point of view is differing from their parents. I think that was the point of this case. At least that's the point I was trying to make.

Yes?

PROF. LAWLER: Let's say that our standard is the best interest. Can we agree that the house officer here did not have nearly enough information to make a judgment concerning the best interest of this young person?
This is a very serious flaw if, in fact, she wouldn’t go ahead and give her information on birth control and so forth.

**DR. KOPELMAN:** I think that’s at the heart of this problem, not only in the case of the 14-year-old, what should she be told, but in the case of the 16-year-old. How should she be treated when she requests birth control medication? Is it in her best interest to get it or not?

I think I hear a little bit of disagreement around the table. And I think that’s what makes this —

**PROF. LAWLER:** Let me ask you, what kind of standards do you think should be in place for a case like this?

**DR. KOPELMAN:** I would want to check in this case who — to me, very important information is who is she having sexual relations with. If it is someone five years older than her, I think you have a duty to report.

Now, you may lose trust. She may never come back. But there is so much abuse, sexual abuse, of teenagers that, you know, I think we need to work on that.

Okay. One more case. This is the last case. This is a child with a very serious condition called holoprosencephaly. It is an anomaly that develops very early in fetal development. And it is the failure of the lobes of the brain, of the cerebral hemisphere, to divide sufficiently.

And there’s this range. There’s this spectrum here from severe — the most severe die in utero — to the least severe, which is there’s an incomplete separation, but some of those children with the least severe versions are near normal. They have mental retardation.

The case three is an infant who has a very severe form of it. And the question here once again is, what is the best care? What is in the best interest of this infant?

Since birth, ten-month-old K. D., who has a diagnosis of holoprosencephaly, has reacted only to painful stimuli. K. D. is admitted to the hospital with edema. He is found to have renal failure of unknown cause.

Doctors determine that his kidney disease can be managed with renal dialysis but not cured. Is it required? Is it optional or counter-indicated given his underlying condition? Who should decide what is the best care for this child?

The residents who picked this case gave us some background about the family. There were four children. There is an older brother who has a milder version of holoprosencephaly. And the two boys with this condition are being cared for by the mother and two teenage daughters.

So there are four children in the family. And the two daughters and the mom are providing the care for these boys, one of whom is severely retarded and one who is not. He’s still mentally retarded, but he doesn’t have as severe a case as this one.

So K. D. can live for many, many years with the dialysis and will not live very long without it. So the question is, is it obligated, is it required or is it counter-indicated?

Are there any questions you would like to ask about this case?

**DR. ROWLEY:** Well, I suppose one question is, what is the financial status of the family just because if this — and everybody can fault me for saying that is not the ethical issue, and I understand that. But I tend to look at these issues in terms of the whole family and what would be the impact of having to take a child presumably three times a week or so to a dialysis clinic for some several hours each time for the dialysis.

And these treatments, though there is some federal support, I believe, for this, can be very demanding. And though it should not be the determining factor, I think as one looks at the family as a whole, that is a consideration that one would like to know in making the decision.

**DR. KOPELMAN:** I don’t have that information. I’m sorry. It was not something the resident brought up.

**PROF. DRESSER:** I assume this point about only reacts to painful stimuli means that the child — is it himself?

**DR. KOPELMAN:** Him.
PROF. DRESSER: —would not experience burdens from the dialysis.

DR. KOPELMAN: Well, I don't know.

PROF. DRESSER: Maybe a little.

DR. KOPELMAN: They're restrained. Wouldn't they have to be restrained? In Taking Care, you wrote that a majority of patients don't think life is good on dialysis, that sometimes they draw off too little fluid, sometimes too much, the clot gets infected.

So I don't know for a fact that it would be pain-free. But this child is minimally conscious. And the only thing he seems to react to is painful stimuli.

PROF. DRESSER: Okay. So it's just that we would perhaps want to know more about the experiential burdens that he would have.

DR. KOPELMAN: As far as the residents and the attendings could tell, he only reacted to pain.

Yes?

DR. GÓMEZ-LOBO: Would a child who is normal be given the dialysis in this case? In other words, any failure to give the dialysis would be based exclusively on the holoprosencephaly?

DR. KOPELMAN: I would think that is probably true.

DR. GÓMEZ-LOBO: Then it is parallel to the Baby Doe case, isn't it?

DR. KOPELMAN: And I am going to actually talk about Baby Doe in the next section. I think it's interesting that all three of us were given whatever topic we wanted to talk about and all three of us talked about the Baby Doe regulations. Whether this child would meet the Baby Doe regulations or not, I can tell you what happened in this case.

In this case, the physicians, just as in the case you talked about in Taking Care, they decided it was optional and they would leave it up to the family. And the family chose to have the dialysis. That was the outcome of this case.

They all agreed that if the family had said, "No, we do not want to have the dialysis for K. D.," that they would have gone along with that as well.

Yes?

PROF. MEILAENDER: May I still pursue that case for just a minute?

DR. KOPELMAN: Yes. I am not sure I can get back. Well, okay.

PROF. MEILAENDER: I am just curious what the answer to tion would be if — I mean, Rebecca had said that we would ultimate more information about the way the dialysis was experienced by him himself, but if the dialysis did not seem to be burdensome to the pain't seem to respond as he di d to some other painful stimuli, ands clearly useful in prolonging his life and would have been done for a child who didn't have this disability, then what would the answer to this question be? If you're not going to dialyze the child, why not?

DR. KOPELMAN: What would be the reason for regarding it as optional? Why did the doctors think it was optional? Is that what you're asking?

PROF. MEILAENDER: I would prefer to sort of fill in the blank, "I'm not going to dialyze this child because"?

DR. KOPELMAN: I think the one thing to consider is what would you want for yourself in the similar setting. If you were minimally conscious, could only react to pain and that's how it was going to be forever, what would you want for yourself?

And if you think we should do unto others, if we should apply the Golden Rule, then I think I could accept someone saying, "I wouldn't want this for myself. Therefore, I shouldn't inflict it on others" or someone saying, "This is what I would want for myself. Therefore, I think it's the right thing to do for others."

PROF. MEILAENDER: Well, see, I wouldn't put it quite that way. I wouldn't think of it quite that
way. I would say, “Since I am a human being, I would not want any of my fellow human beings to
decide that they wouldn’t do this so that I would die. And, therefore, I should not make similar
decisions about other human beings.” Do you see that?

The question is how you fill in that blank in the sentence. If you fill it in by saying, ”I’m not going
to do this so that he goes away, so that his life of minimal capacity ends,” then that is not whether I
would want that done for me or not. It’s whether I think that should be done to any human being.

DR. KOPELMAN: Well, in making my choice, though, it seems to me in some sense I am saying,
“This is what I would not want for myself because there would be burdens and no benefits,” as far as
I can see, for myself or anyone else.

PROF. MEILAENDER: But by hypothesis, there aren’t any burdens.

DR. KOPELMAN: Yes, there are.

PROF. MEILAENDER: Not to the patient.

DR. KOPELMAN: Yes, yes. He senses pain.

PROF. MEILAENDER: But I began by saying at least in lacking other information, we have no
evidence that he experiences the dialysis as burdensome.

DR. KOPELMAN: Well, we know he experiences procedures as painful. That’s his whole life, is
pain. And, as I understand it, at least from reading Taking Care, it’s burdensome.

PROF. GEORGE: I think it would help if we were clear on what the “it” is that’s burdensome and
what the “this” is when we wouldn’t want “this,” ”I wouldn’t want this for myself. Therefore, I
wouldn’t want this for others.”

Is the “this” and the ”it” this life under these conditions or is it this treatment, which in the version of
the hypothetical I think now on the table is painful? Is it the latter or the former?

DR. ROWLEY: Well, I am the last person who should be discussing this, and it’s too bad Dan isn’t
here. But dialysis does involve the circulation through a system of blood to reduce the amount of
ammonia and other — Ed, you probably know as well or Paul — things that are toxins in the blood.
And you remove these through the dialysis apparatus.

So you do either have to have, I believe, some kind of an in-dwelling line or each time you have to be
stuck to be hitched up to the instrument. And the child is almost certainly going to have to be
restrained for four or five hours three times a week to undergo this. So this is not a trivial procedure.

PROF. GEORGE: So does that mean that the “this” is the burdensome treatment, not the life?

DR. ROWLEY: Correct.

PROF. GEORGE: So that if we shift the hypothesis back to where Professor Meilaender opened,
had it in his opening comment, and there were no particular burdens or he couldn’t feel them or
experience them, then there would not be any reason not to go forward with the dialysis?

DR. KOPELMAN: That is another case. The case I’m talking about, there are painful burdens. But
if it was an intervention where there was no pain involved, then it would be far less problematic, I
would say.

DR. KASS: I probably should keep silent on this, and I will probably regret it, but Gil and Robby
could find some way to administer sufficient anesthesia or some kind of narcotic to eliminate the
pain to make it a pure case to prove the principle, but I think there is something finally weird and
even cruel to treat a child who has, as far as we know, nothing but a reaction to painful pressure as a
continuing biological preparation to uphold the principle.

And I don’t see the compelling reason for saying the condition here doesn’t somehow count. It
doesn’t make sense to put this baby on dialysis. If you then have to give the reason for not doing so,
you might be embarrassed. And I have owned up to my embarrassment on this point multiple times.

But this is not what medicine is supposed to be doing. And unless you want to say every conceivable
intervention which could be rendered non-burdensome to this little infant becomes morally
obligatory because not to make it morally obligatory is to wish them dead, then we’ve got something
wrong in our thinking.
PROF. LAWLER: All right. This, though, was not such a great case because the case is about this. This little human being experiences life as nothing but pain and will be subjected to a procedure which will bring more pain.

I have to say this is very difficult. I understand what Leon is saying about this. And I might even be sympathetic as long as you wouldn't generalize from this case to any other case if life is 98 percent pain and the danger is caving on this. If Robby and Gil cave on this, then what about a 10-month-old baby who is quadriplegic, a ten-month-old baby who is severely retarded, at what point do we say, then, the quality of life is so low the dialysis makes no sense?

I'm jumping to the extreme case and pulling Leon's heartstrings that hard, you know, you can't help but feel sympathy for a position. On the other hand, Robby and Gil might say, "We're not going to cave on this one" because in caving on this one, then, in fact, it becomes a part of drawing the line. What percentage of life would have to be painful before you would say dialysis would make no sense because this is a genuinely extreme case where life is nothing but pain. How many cases like this are there?

DR. KOPELMAN: Well, I think we can ask the neonatologists here. They're not that uncommon.

PROF. MEILAENDER: I just want to clarify. You have, alas, walked into a longstanding discussion and just found yourself in the middle of it. And I sympathize with you at this point, but that doesn't mean I'm willing to stop exactly.

(Laughter.)

DR. KASS: I just didn't want there to be the impression there was unanimity around the table in the way in which the conversation had been going. So I kept silent.

PROF. MEILAENDER: I understand. But I think if doing this to this child is — if we have some reason to think that it is placing burdens on that poor little child's life, that is a decisive factor, as far as I am concerned.

But it's not a question simply of sort of trying to uphold a principle, Leon. The Taking Care report, from which you have gone to the trouble actually to read and to quote, makes clear that these individualized decisions take place within a framework that is governed by certain nonnegotiable principles. And one of those has to do with not just trying to make people's lives go away finally.

So it's not that one makes one's decision about the case in order to try to uphold the principle. It's that we have certain principles that shape our whole understanding of how we think about cases and what we are doing. If we didn't have them, we would think about cases entirely differently.

So, I mean, I think it's wrong to describe this as just an attempt to save a principle. It's an attempt to allow our thinking to be shaped by ways of looking at cases that are not simply ad hoc but that recognize our common humanity.

DR. KOPELMAN: As I read Taking Care, I was struck with how much better off infants would be with the principles that you enumerate there than the Baby Doe regulations. The Baby Doe regulations are technically for infants under one, but they create a certain mindset in pediatrics for a lot of intensive care, too.

PROF. LAWLER: In your opinion, the Baby Doe regulations, then, would compel the doctor to put the kid through dialysis, even if dialysis was very painful?

DR. KOPELMAN: I have the Baby Doe regulations. And we can talk about that case when we have the Baby Doe regulations up on the board. We could just postpone that a little bit.

PROF. GEORGE: I won't hold us up very long. I just wanted to clarify one thing. I appreciated Dr. Lawler's comment, not only this most recent one but the one before it, which is the one I am referring to right now.

I understand it and agree with the point he was making, but let me just ask you if he was accurate in his understanding of the case you had in front of us. I thought you said that the baby in the case only responded to painful stimuli.

DR. KOPELMAN: Correct.

PROF. GEORGE: I think perhaps Dr. Lawler interpreted that as meaning that the baby experienced nothing but pain in the sense of experienced pain all the time, was under constant
unpalliated pain. Now, that wasn't what was going on, right?

**DR. KOPELMAN:** No. As far as anybody knows, you can't really ask the baby.

**PROF. GEORGE:** Sure.

**DR. KOPELMAN:** But, as far as anybody knows, heart rate goes up, you know, have a reaction to pain like others do as far as that.

**PROF. GEORGE:** Yes. Those would be two different, —

**DR. KOPELMAN:** Right.

**PROF. GEORGE:** — interestingly different —

**PROF. LAWLER:** That's right. I mean, so it's long periods of calm with break-ins of pain.

**DR. KOPELMAN:** Minimally conscious.

**PROF. LAWLER:** Yes.

**DR. KOPELMAN:** So that they come to consciousness only when there is pain is as best as anyone can tell.

**PROF. GEORGE:** Okay.

**DR. KOPELMAN:** Well, I quoted from you because I did think that the principles you enumerated would be very useful. The goal of caregiving — is it a bore to quote you back to yourself? I hope it's not. Anyway, "the goal of ethical caregiving in the clinical setting is not to extend the length or purpose or postpone the end of a patient's life as long as it is medically possible but always to benefit the life the patient still has." So you look in terms of burdens and benefits, which I agree with.

The clearest ethical grounds for foregoing life-sustaining treatment are an obligation to avoid inflicting treatments that are unduly burdensome to the patient being treated and an obligation to avoid treatments that are not at all or not any longer efficacious in obtaining a desired end.

So I come now to choosing policies that support flexible and individualized choice using the best care or best interest standard. The Child Abuse Prevention and Treatment Act had amendments in 1984 that are widely regarded as the Baby Doe regulations. It requires maximal treatment for infants under one year unless in the reasonable medical judgment of a physician one of the following apply: chronically and irreversible comatose.

As Dr. Nelson said, this is very difficult to determine in the newborn period, as is persistent vegetative state. So as a condition, as a criterion for discontinuing, this is going to largely not be used very often.

Treatment would merely prolong dying, not be effective in ameliorating or correcting all of the infants' life-threatening conditions, or otherwise be futile in terms of the survival of the infant.

Now, I would say the case we just discussed does not meet the first condition. He's not in a coma. He's not in a persistent vegetative state. And the treatment would not prolong dying. He could live for many, many years with the dialysis.

Third condition is the provision of such treatment would be virtually futile in terms of survival. And, again, he could live many, many years for this. And the treatment itself under such circumstances would be inhumane. There is no separate consideration of what is inhumane in itself, only in relation to whether it's virtually futile in terms of survival.

Now, a survey that my husband and I and another colleague did soon after the Baby Doe regulations went into effect, the neonatologists from the American Academy of Pediatrics, all of them were sent the survey and a sampling of pediatricians. Other kinds of pediatricians, in the academy were sent the survey.

We had a pretty good response on one mailing, almost 50 percent. They argued that standards of care were immediately altered. They thought it gave, these rules gave, too little weight to the infants' pain and suffering, too little weight to parental views and to clinical judgment, the ability to make flexible individualized choices.

Now, there have been a lot of surveys of adults. Most adults want individualized decision-making for
themselves and the opportunities for their families and doctors to give adequate pain medication to fulfill palliative goals.

Most adults do not want to prolong minimally or permanently unconscious lives for themselves. And the Baby Doe regulations are really pretty strict in not allowing for discontinuation of treatments unless the infant is in coma or is dying or very likely to be dying.

So the question is, do the Baby Doe rules set up a standard different from the best care and best interest standard? I would argue they do. In the survey — again, this is a 20-year-old survey, but nobody has done one since. Maybe it’s time to do it again. Up to a third thought the Baby Doe rules and the best interest standard were different in one of the cases. We had three vignettes. And in one of the cases, a third of them thought that they were required by the Baby Doe rules to treat that baby in a way that they did not think was in the infant’s best interest.

Do they unfairly single out one group for rules that others of us do not want? It seems to me fair that if we’re going to have Baby Doe rules for babies under one, then we should all have them. If you’re not going to trust the families and the clinicians for babies under one, why should you trust them for 50-year-olds, 60-year-old, 70-year-olds, or 80-year-olds?

So, I mean, I would argue it’s not fair to have unless somebody can make a case a set of rules for just one age group. Does it ignore duties to prevent unnecessary suffering?

Most of the neonatologists and pediatricians, I think it was around 75 percent, thought it did, gave too little consideration to suffering. Did it give too little attention to parental views? Again, most of them thought it did.

Did it unduly restrict prudence, the ability to make a here and now decision considering the facts of the case? Does it give too little consideration to clinical judgments? And, again, most thought they did.

Now, in the case we have just been talking about, one of the residents suggested, "Well, you know, maybe we should give this baby dialysis for three months. When they get out of the range of the Baby Doe rules, then we'll quit, you know." And I would suggest to you doing that is probably not making the right decision in the right way for the right reasons, but anyway.

Here is my concluding slide. And I would suggest that to the extent possible, the same goals and values apply to health care for the elderly with diminished capacity that you enumerated in Taking Care should also apply to minors. We should consider the values of what is going to benefit and what is going to do no harm and foster individualized decision-making by families and clinicians using the best care or best interest standard.

And, as I said when I introduced this, I don’t think you can use the best care or the best interest standard without some kind of social consensus about what kinds of choices are unacceptable. It presupposes a consensus, and it also presupposes some frameworks of rights for the individual and duties to those individuals that are pretty well enumerated or understood.

We should also consider the value of autonomy in honoring assent or refusals of minors if they’re reasonable. And I think that’s a point you make as well with people who have diminished capacity but have a point of view among the elderly.

As issues of justice, we should treat similar cases similarly, different cases differently, and the differences and similarities should be relevant. I suggest to you being under one is not necessarily relevant in and of itself for a different set of rules.

Another point about justice, of course — that’s a formal condition of justice to treat similar cases similarly. Another formal condition of justice, which Aristotle clarified for us, of course, is that a just system creates the opportunities for justice to thrive and encourages good people to act well and perform their duties.

I think you heard a lot of angst this morning from intensivists, from neonatologists about the difficulty of not being able to do what they consider to be in the best interest of children, provide the best care, because of rules which they perceive as thwarting in some cases the best interest standard.

This was really brought home to me in a case conference we had about six months ago. A woman gave birth to very premature twins. One of them did well, and one of them was doing extremely badly. And I cannot remember the details of the case. I’m sorry.
But there was a case conference with about six or seven family members. One of them was a nurse on a palliative care unit and one who is a pulmonologist. They were very used to dealing with dying adults. And they said, "Well, maximal treatment in this case is not in the best interest of this infant."

The three neonatologists present agreed, "but" they said, "We feel obligated to follow the Baby Doe regulations. So we can’t do anything." The family expressed shock that there should be such a difference in the treatment of adults and the treatment of infants.

So I think that's to me, in part, a justice issue, not only treating similar cases similarly but are we encouraging good people to do the right thing in the right way for the right reason with this very inflexible rule?

And then I would just mention one other value of generalizability or consistency. Are we treating others as you would want to be treated if you were in the situation of that infant?

I'll be happy to take any further questions you have. I'm sure there are some. Yes?

DR. GÓMEZ-LOBO: Well, I couldn't agree more on the conception of justice that you set out, but it seems to me — and you may correct me if I'm wrong here in the information; I'm new to most of these topics — that precisely the Baby Doe case was a case of severe injustice. In other words, this child was treated differently from other children of the same age precisely because of the Down’s syndrome disease or disability.

And that's what prompted this idea, it seems to me, to protect precisely the most weak among us and protect them, in part, from decisions made by third parties on whatever grounds, which may be right or wrong. So I would like to understand a little bit more the focus here.

The second reason for raising this question is because I understood Dr. Fost to be in disagreement with regard to interpretations. In other words, the interpretation of the rules, because it seemed to me that according to him, these rules would leave latitude for discretion in certain cases, but I would say it’s the protection of the weak that seems to be or, at least as I understand it, the focus of these rules.

DR. KOPELMAN: You raise two good points. I'll try to address them, first one and then the other. What happened with the baby who came to be known as Baby Doe in Indiana, that was a terrible thing. I think today there's no question that infant would be treated.

In the early '80s, when that case occurred, there were very few intensive care units. There were very few neonatal units. And, I mean, I'm not defending that case, but we need to think of it in the context of virtually no intensive care units, no pediatric intensive care, no neonatal intensive.

Hopkins had one of the few. There weren't that many around the country. And that's why the case that Norm Fost mentioned where the baby with the duodenal atresia didn't get treated was very shocking. Many times if we put it in context of what wasn't happening to adults, we would be shocked there, too.

So we have moved way beyond that Baby Doe. And I don’t think you would find anybody who would not treat that case today and not because of Baby Doe rules but because they would view this baby as having a good opportunity to enjoy life and have pleasures and interact with people. We know an awful lot more about that genetic condition today.

And I think that part of the problem in this is that when people talk about non-treatment of infants, that case pops into the mind of a lot of people, "Oh, you’re not going to treat an infant with Down’s syndrome. I know all about that"; whereas, that’s not where the neonatal discussions are. It’s really with infants, as far as anybody can tell, life is just a burden and nothing else. And that’s really where the discussions I've heard are.

DR. GÓMEZ-LOBO: That is precisely the case. I think that at that moment, people considered Down's syndrome just a burden. So has there really been a shift in thinking or do people still think of life as a burden and not the illness as a burden or the disability?

DR. KOPELMAN: Well, I am not sure about that. As I understand it, — maybe Professor Dresser would like to address that — legal theory was who had the right to decide. And the court said, "Oh, it’s the parents who have the right to decide." And that’s what went up through the Indiana courts.

I think people are much more inclined now to overrule the parents. And the courts also said, "hey, the doctors disagree about what is best. Let the parents decide." That was what was going on for
Baby Doe.

Now, was it a mistake? Yes, I think it was a mistake.

**PROF. DRESSER:** Well, I do think that you have pushed us into the corner, where it is very uncomfortable. And that is this question of if we are to adopt a sort of standard of what is reasonable to allow parents and doctors to decide for infants, what is reasonable discretion, you know, on the one hand, you can talk about cases where we would say, "That's unreasonable."

And then you can talk about a child with Down's syndrome and we can say, you know, withholding treatment is clearly unreasonable, but that's partly because we live now and there is a different social understanding of the condition.

So I think we're very aware that to some extent our judgments about reasonableness are affected by social norms and things that will change over time. So we don't want to get it wrong. So I don't know if you — I mean, to me that is the real struggle with children and with older people with dementia.

Another ingredient with the newborns is uncertainty that I know I've heard people talk about. With, say, a person with Alzheimer's, there's a trajectory and you can be pretty certain about what that person's future looks like; whereas, with the preemies, as we have heard this morning, you know, there are these statistics.

So you can say, "Well, this child is in a group where, you know, 20 percent will die, 20 percent will be about average in mental and physical abilities, and then the rest of them will be somewhere in between. But we can't tell you where your child will end up." How does that affect this calculus?

**DR. KOPELMAN:** Well, yes. You raise a good point. Sometimes it is clear what the trajectory will be for older persons and you figure, "Well, if we make a mistake, it's going to be a mistake of months, you know, not decades, as it might be for the infant."

I think that uncertainty is a very good reason to start maximal treatment and evaluate. And, as Dr. Nelson said, things sometimes go wrong very quickly and you get more information. And you can make a much better particular choice using particular data once you have good information.

And so I would argue for certainly beginning maximal treatment if there's any uncertainty and evaluating along the way. But if we have to treat everybody, just because one percent might do pretty well, then I would say let's adopt that for all of us, that you don't have any choice.

If there's a one percent chance, you know, heaven forbid, that we are incapacitated, no matter what, if there's just a very small chance we have to do everything, your family has no choice.

**CHAIRMAN PELLEGRINO:** Dr. McHugh, Dr. Meilaender, and then Dr. Kass.

**DR. McHUGH:** Once again, I think you are wonderful to stand up to this where you come. I've enjoyed your conversation as well as the meeting this morning.

But I wanted to pick up one theme that you mentioned in your penultimate slide, where you said we might be unfairly singling out one group for rules others don't want.

I think that maybe children are the most appropriate group because, as we have seen historically from medicine, children are individuals we have betrayed more than many others. And, after all, there is also a man who holds a chair in ethics at Princeton who thinks that we should not think of lives of children until they develop their personhood.

So I think it may well be that the American public, including me, feels that the child is lacking in champions and that maybe we should pick them out as a particular group of people because they lack the kind of championship that adults get and develop as they flower as members of a family and a citizen, that maybe there are certain kinds of times when, you know, that we've just got to say, "Okay. Here are some rules that we want you to obey. They're burdensome," all of that, but, you know, that's what you get when you betray a trust. You get very burdensome rules put on top of you. And to regain the trust takes a heck of a lot longer than it does to lose it.

Now, Dr. Fost is closer to the case than I am, but I know a bit about the Hopkins case because I still talk to some of the nurses who were there when that case was put in.

The doctors made the decision, but the people who had to be there with that baby were these nurses. You know, nurses aren't like doctors. They have other things, wonderful things, that they do. And
we betray them if we don’t accept their vocational commitment and their role in caring for things.

So I’ve listened to a lot of very good information today, but there’s been a bit of whining about how tough it’s become, not enough acceptance of the fact that, you know, we kind of put this on ourselves.

So I come back to this idea. Do you think that children have adequate champions today so that we can be really sure that we can move forward?

DR. KOPELMAN: You raised about four or five things. One, does it unfairly single out one group for rules others don’t want for themselves? And it’s I would say rules that others don’t want for themselves should they become incompetent. And there’s pretty good data they don’t want to live a life where they’re minimally conscious and just feel pain. They don’t want to live a life where they’re minimally conscious, period. There’s pretty good data on that. If we know that’s what competent adults project they want, then I think it also. That was the point of that bullet there.

Do children under one lack champions? This has been a charge, I think, that the reason you need the Baby Doe rules is that parents and clinicians can’t be trusted to act in their best interest and do the right thing for them. And that’s why you need a rule that only allows you to quit or if they’re dying or comatose.

I don’t find any evidence for that, for that sweeping claim. If there is any evidence, I don’t know data that shows that parents don’t care about their children and are not inclined to do a better job than some rule which is one size fits all.

I am sorry about the whining if that’s what I have been doing. I don’t know. But I do hear a lot of angst from neonatal nurses and doctors, who feel they are hurting babies and for no good reason that they can think of.

DR. McHUGH: Look, don’t get me wrong. I was just teasing a little bit there, and I do that too often. What I meant was that, in point of fact, we got into this problem because the children were betrayed. And we heard about the betrayals more today from Dr. Fost, even others.

All I would like to say is that when people begin to say we now have overdone it, they might say, “Well, we are overdoing it now because of the things we, we doctors, neglected to do before. And we’re doing our best to make up for that out of the experience we have. And what more can we do to help you?”

DR. KOPELMAN: Again — should I continue?

CHAIRMAN PELLEGRINO: We have overused our time.

DR. KOPELMAN: Oh, I’m sorry.

CHAIRMAN PELLEGRINO: And I want to get the last three speakers.

DR. KOPELMAN: Okay.

CHAIRMAN PELLEGRINO: Could I ask you to answer all three?

DR. KOPELMAN: Certainly.

CHAIRMAN PELLEGRINO: We have Meilaender, Kass, and Lawler, in that order, with a plea for conciseness.

PROF. MEILAENDER: You have made a kind of comparison between the Baby Doe regulations and our Taking Care document. And I want to take that up, fully conscious that the next speaker in the queue may offer a different interpretation of our document.

Whether the Baby Doe regulations are perfect or not, I don’t know, but they attempt to provide a structure that guides decision-making. I would say that that is one of the things that we tried to do in the Taking Care document. That is to say, we wanted to think through individualized decision-making but within a certain structure, governed, for instance, by principles such as no deliberate killing, whether by action or omission, equal dignity of all human beings, whatever their particular capacities or stage of life, and that those structure and shape the individualized decisions.

Now, in the paper we had from you on the Baby Doe regulations, you say, for instance, — I’ll quote a passage from it, a sentence — "Adults facing a choice between prolonging life and preventing a life of
minimal or no consciousness or of no pain and suffering sometimes believe that there are worse things than dying."

Now, it strikes me that that language of "preventing a life" —

**DR. KOPELMAN:** Did I say "prevent"?

**PROF. MEILAENDER:** Yes. I just read it here.

**DR. KOPELMAN:** Okay. Yes.

**PROF. MEILAENDER:** Well, just let me make my point. You can understand, then, why someone might be worried that a restructuring would not, in fact, leave in place the sort of guidance that we suggested might properly shape individualized decision-making.

And that’s the worry, not some kind of drive me to the wall commitment to the notion that the Baby Doe regulations are perfect and should never be changed but a worry that the kinds of proposals for reformulating actually wouldn’t bear a structural similarity to the sort of approach we took in the *Taking Care* document.

**CHAIRMAN PELLEGRINO:** Thank you.

Leon?

**DR. KASS:** Yes. I’m not going to quarrel with Gil about what we have said. It does seem to me that your plea not to somehow single out children as a separate group raises an interesting question for this group insofar as it means to take up the subject of children. And it’s kind of a larger question. I don’t quite know how to get a handle on it, though it’s been lurking at the boundaries of the discussions all day today.

I mean, kind of a dumb way to say it is, what exactly do you mean by a "child," by which I don’t mean what is the chronological age or how do you recognize them but what is the conception of them such that we single them out for special consideration?

From my way of thinking, Paul spoke partly to the point where he talked about that these are amongst people in our society, the most often abused or betrayed. And Norman Fost this morning spoke about those horrible figures and that they might be lacking in champions. But it seems to me it’s not just children as members of especially vulnerable populations, which is the way the bioethics literature tends to group them, that I think makes them of special interest.

And before I would be prepared to say children are human persons and, therefore, they come under the general heading of how you treat human persons, I think it’s incumbent upon us to try to sort out for ourselves what do we mean by taking a special interest in them.

And here is just one small point. Going back to the case of the 16-year-old girl, some people are concerned as to whether there is rape here and a question of with whom she is sexually active.

No one sort of I think focused on the question of the integrity of the family as one of the considerations in the care of children. Janet referred to it when she spoke about the next case, where she doesn’t want to see just this child in isolation but wants to think about the well-being and the family.

Here one has to sort of say, "Look, there’s a familial context here, which is also on trial in the presentation of that case and is one of the things that’s to be considered."

If we consider children simply as individuals of a young sort but not see them as somehow integrated into the natural context into which they belong, we’re missing something.

That’s not so much a criticism of anything that you have said. It’s something that the presentation has helped me to see as something I think we need to pay attention to, Mr. Chairman.

I don’t think I need a comment in response.

**CHAIRMAN PELLEGRINO:** Thank you, Leon.

Dr. Lawler?

(No response.)
DR. KOPELMAN: Okay. A brief response. The framework I have worked in here has been people with diminished capacity, either because they are minors or because they have dementia.

In both cases, it emits of degree. To the extent possible, I have argued for honoring their assent. I do think as we are responsible citizens and look forward to a time when we may have very diminished capacity, sometimes we do let our families know that we think there are worse things than dying. And that was the context in which I made that remark in the Baby Doe rules.

And if we do have strong feelings about that, then I also think the same values, the same principles we should be prepared to consider for minors, too.

CHAIRMAN PELLEGRINO: Thank you.

DR. ROWLEY: Can I just make just one small comment, both to Paul and to Gil? Actually, what Loretta was asking us to do was to individualize treatment. What she is complaining and others are complaining about with the Baby Doe is that there is no room for judgment. There is no room for individualization as the rules are presently interpreted.

CHAIRMAN PELLEGRINO: Thank you, Dr. Kopelman. I'm sorry we're a little pressed for time. Thank you for your patience with this. Obviously the interest in your remarks is very, very high. And I think it's very pertinent to what we are doing. Thank you for all the clarifications.

Let's take a few more moments in the break so that we don't exhaust you entirely before Dr. Goldkind comes on. Let's reassemble at 5 of 4:00.

(Applause.)

(whereupon, the foregoing matter went off the record at 3:41 p.m. and went back on the record at 3:58 p.m.)

CHAIRMAN PELLEGRINO: I think we can go ahead probably. Thank you.

DR. GOLDKIND: I would also like to thank Dr. Pellegrino and the Council for having me here.

CHAIRMAN PELLEGRINO: Well, I was going to say a word about you.

DR. GOLDKIND: Okay.

CHAIRMAN PELLEGRINO: Dr. Goldkind is the bioethicist in the Office of Pediatric Therapeutics within the Office of the Commissioner of the Food and Drug Administration.

I was surprised to learn that she was the bioethicist for the FDA. And some of her compatriots, I guess, were surprised, too. But her presentation was a very impressive one, particularly because of some of the issues she raised, I thought it would be very important to have her talk to the Council as we open up the issue of pediatric ethics, one of them being experimentation with children and some of the problems as seen from the FDA point of view.

I told Dr. Goldkind please not to limit herself to that perspective, but to range over other areas.

Thank you for joining us.

DR. GOLDKIND: Thank you for having me.

SESSION 4: ETHICAL ISSUES IN PEDIATRIC RESEARCH

DR. GOLDKIND: I would like to shift the conversation from the clinical arena to the area of pediatric research and particularly to regulated research.

What I would like to do is first start with where we have been, what the evolution is in pediatric clinical trials. And I'm going to look at societal, legislative, and regulatory history to do so.

Then I would like to talk about where we are now and the importance and findings of pediatric research, what I call a shift in paradigm from the view that research was risk-laden to the notion that research is actually hope-laden and look at medical and societal influences on that view and discuss two specific topics which are very challenging issues, some of which we have heard a little bit about from Norm on risk levels.

And in order to do so, I'm going to look specifically at the FDA regulations on subpart D, which are the additional safeguards for children in clinical investigations.
I would also like to touch upon the issue of inclusion of healthy children that has already been raised this morning and look at some ethical documents and subpart D referrals that we have actually had to the agency to see if we could flesh out a little bit more information on the inclusion of healthy children.

To begin so, I thought that I would begin with actually the birth of the FDA and take us through about a 100-year history of where we were and where we are now. It's interesting that while the FDA was formed in 1906 in reaction to muckraking journalists to consumer activists to professional societies to documents such as Upton Sinclair's novel The Jungle, which exposed cure-all claims and misbranded products with the idea that we should try and keep products away from consumers who are not wary of what they're purchasing and also that there ought to be even regulations among products that are transmitted via physician prescription.

Prior to the 1906 regulation, there was a 1902 Biologics Act, which was stimulated because of children who died after receiving tetanus-laced diphtheria antitoxin. In the next couple of slides, I'm going to mention some of the untoward and catastrophic effects that have occurred in children which influenced some of the fundamental FDA regulations that are still in effect today.

So two landmark dates are 1938, when safety requirements for drugs were initiated and legislated, and 1962, pre-market efficacy requirements for drugs were legislated. Both legislative initiatives were stimulated, in part, by catastrophic events in children. Yet, even at the time, the ethical approach to children was thought to be exclusion from research.

The 1938 Act, as I said, was passed, in part, in response to the sulfanilamide disaster, where an elixir of sulfanilamide was prepared with a poisonous solvent, which was actually antifreeze. And 100 out of 107 of the people who were killed were children. This led to safety requirements that are still in effect today.

And the sponsors specifically must show before marketing that a product is safe for the use under the conditions of prescribed, recommended, or suggested in the proposed labelling.

I would like to point out that the FDA is very specifically focused on what is written in the label. And you will see this for the efficacy requirements, too.

So research is conducted. And the information from those research protocols are found in the label. So the label is a very important document and reflective of some of the clinical findings.

In 1962, the Kefauver-Harrison amendments were passed, in part, in response to the thalidomide tragedy. That is what we call the efficacy requirements, which, again, are still in effect today. And both these pieces of legislation are actually quite complex. And I'm just giving you a few of the highlights of these pieces of legislation.

It basically states that sponsors must show before marketing that, based on substantial evidence, which is adequate and well-controlled clinical trials, the drug will have the effect it is claimed to have under the condition of use, prescribed, recommended, or suggested in the proposed labeling.

It also required maintenance of strict distribution records, which was part of the problem in the thalidomide circumstance. Once it was already recognized that thalidomide caused phocomelia or limb deformations, they couldn't retrace all the pills that were distributed. And it required that investigators supervise trials. It required informed consent from study subjects. And it required that animal studies be done prior to human exposure.

I put these up because these are certainly significant for the protection of children. They're significant for the protection of all human subjects.

So now I would like to sort of trace what I think is the beginning, if you will, of some of the history related to the inclusion of demographic subgroups in clinical trials and specifically children.

And I would like you all to recognize that it's not a dichotomous situation where one day we had no children in clinical trials and then the next day we did include them. In the 1950s, children were already being enrolled in multi-site oncology research, which was the harbinger of what we have today, which is the Children's Oncology Group, which is a national and at times multinational research endeavor on behalf of pediatric oncology.

In 1966, of course, Henry Beecher published his famous New England Journal article that described about 20 or a little bit over 20 research infractions. And Dr. Fost described Willowbrook, which was a different perspective on Willowbrook, but that was one of the studies that was mentioned in Dr.
Beecher's publication.

In 1972, of course, we have the Tuskegee atrocities that were brought to full light, which stimulated the formation of the National Research Act and the national commission.

So at that point, there was this general, although not complete, orientation to restrict children's participation in research and protect them accordingly.

In 1977, the commission issued its report and recommendations on research involving children, which forms the ethical basis of our current pediatric regulations. It was really a novel and insightful and innovative and very thoughtful report. The subpart D regulations that I am going to discuss later come directly from that report.

So already in the 1970s, the American Academy of Pediatrics' Committee on Drugs called for new drugs to be studied in children under controlled circumstances.

And at that time, the AAP said that it was unethical to adhere to a system which forces physicians to use therapeutic agents in an uncontrolled experimental situation virtually every time they prescribe for children. Dr. Fost alluded to that today.

The figures are somewhere between 75 and 80 percent of drugs that are used in children, prescribed for them, had not been rigorously, systematically tested. And so that children, when they go to the pediatricians' offices, are prescribed medication and basically, in an unsystematic, uncontrolled manner are turned into subjects of one. So that's what that piece of those guidelines was in reaction to.

In 1977, the FDA added a pediatric section to the labeling. So if you open the Physician's Desk Reference in the 1970s, it looks a lot different than it does now in that there was no pediatric section at that time and there was no pregnancy section at that time. So there have been marked changes in the way that we study demographic subgroups.

Now, I think one of the pivotal times in history for research and the notion of this shift from risk-laden to hope-laden was the 1980s AIDS crisis, where clearly there was a devastating and life-threatening illness with no known treatments. And the AIDS activists lobbied very hard for research access, which is the only way to get any hope at therapeutics.

In 1985, the FDA adopted a regulation which required integrated summaries of safety and efficacy by gender, age, racial subgroups for any new drug application.

And, actually, just to give you some perspective, children were not the only ones who were recommended to be excluded from trials, pregnant women or women of childbearing potential were also.

In 1977, there was a guideline at the FDA that women of child-bearing potential should not be enrolled in clinical trials. And that certainly has also shifted dramatically to the point that in 2004, the FDA issued guidance on how you do pharmacokinetic studies in pregnant women because there's an understanding now that certainly many medications are used and needed in pregnancy.

I would say and many would say that beginning in 1994 through to 2003 was the near decade of most significant advancements in pediatric legislation and research endeavors and initiatives.

In 1994, there was a regulation that was published that said that sponsors should review pediatric data to determine whether existing data was adequate to support pediatric labeling. It basically introduced the concept of extrapolation of efficacy from adults to children.

So, in other words, if you have a disease such as, let's say, Crohn's disease, that could occur in adults as well as children, sponsors were supposed to think about whether you could take the information you know from adults and transfer that down to the pediatric population. That's basically what part of that regulation says. Now, it did not require that clinical studies be done. And that, you'll see, will change later.

In 1995, again, the American Academy of Pediatrics' Committee on Drugs issued a statement that there is a moral imperative to formally study drugs in children so that they can enjoy equal access to existing as well as new therapeutic agents. I think that their statement was very much in line with what it was in the 1970s, although they wanted to contemporize it. But they basically agreed with the fact that there was this moral imperative, which was their earlier statement as well.

FDAMA was an extremely important piece of legislation for pediatric research. And that occurred in
1997 because it authorized what’s called “pediatric exclusivity incentives,” that were designed to address the need for improved pediatric information.

And what it did was say that if the FDA issued a request for pediatric studies and if those studies were designed and approved by the FDA and they were completed, then the sponsor could get an additional six-month period of market protection, not only in the specific drug that they tested in children but in the entire moiety, in any preparation that used that particular chemical.

So sildenafil, for example, is now tested for pulmonary hypertension in children, but it’s the compound that’s known as Viagra. So if that company were to get six months of exclusivity, then it would apply to all of the products and all the uses of that moiety. So this was a very important incentive to encourage pediatric research. And that was I guess commonly called "the carrot."

In 1998, there is the final pediatric rule, which is also called "the stick." It requires the evaluation of pediatric information and supporting pediatric evidence. However, that was enjoined early after it was legislated by a federal court, stating that the FDA had overstepped its regulatory authority.

In 2000, the Children’s Health Act was mandated and that all research on children conducted, supported, or regulated by HHS comply with subpart D. And their Code of Federal Regulations is 45 CFR 46.

In 2000, the ICH document, which is a document that’s a global document meant to harmonize amongst all the nations that participated in it — and that was Japan, the European Union, and the United States. They issued a document called “Clinical Investigation of Medicinal Products in the Pediatric Population.” That gives nod to the recognition that pediatric research could be done globally and that it would be important to try and harmonize the human subjects protections across those participating nations. In 2001, the FDA adopted the subpart D regulations, which we’ll talk about in much more detail later.

And then, finally, there are two more pieces of legislation that I want to go over before we shift to today. In 2002, the Best Pharmaceuticals for Children Act basically reauthorized FDAMA’s pediatrics section sunset, the pediatric exclusivity.

It also established not only the process of studying drugs that were on patent but a process of studying them, the drugs, that were off patent. And it mandated that FDA and NIH establish a collaboration in the study of drugs.

It also mandated that there be public dissemination of summary findings for those studies conducted under the provisions of BPCA. So this is a significant change because it mandated that there be a public dissemination of findings, whether they were positive or negative, because there was this recognition that there was a dearth of information about the pediatric population and that any information would be very helpful information. So it did not necessarily have to be positive findings.

BPCA also stated that the FDA written requests would ask sponsors to provide information on the representation of children of ethnic and racial minorities as appropriate, that neonates should be considered as appropriate. And it established the Office of Pediatric Therapeutics at the FDA, which I’m in. And it also required that there be an ethicist in that office and a pediatrician.

It mandated the public review of safety reports so that the Pediatric Advisory Committee would be a body that would hear the public review of adverse event reports that were accumulated as drugs were used. And it mandated the dissemination of pediatric information, as I had said before, obtained under BPCA.

The pediatric rule, which I had mentioned had been previously enjoined, was reinstated in 2003 through the Pediatric Research Equity Act. And this required that studies be done of certain drugs and biological products if certain conditions were met, such as there was a new indication, dosage form, route of administration, et cetera, or if there were meaningful therapeutic benefits to this proposed new medication over existing therapies. And that could be in the realm of treatment, diagnosis, or prevention.

And it amended BPCA to broaden the functions of the Pediatric Advisory Committee. And I’ll talk a little bit more about that committee as we go through the slides.

So what is the result of all of these regulations and legislations? Well, currently we have had 100 products reflect new labeling changes based on these pediatric studies. And this labeling includes new indications, safety warnings, dosing information, and sometimes extension to lower age groups.
A hundred and twenty-five products have been studied. And those results have been submitted to the FDA. Some are still under review, and some did not lead to any labeling changes.

Here are some of the lessons learned from pediatric trials. Not all drugs that work in adults actually work in children. And I have included some examples. There is rosiglitazone, which is for type II diabetes; and zolmitriptan for migraine headaches.

Some drugs may need different trial designs for children than adults to demonstrate efficacy. So antidepressants are difficult to study, even in adults, but in pediatrics, we have not been able to demonstrate efficacy. And it’s unclear whether it’s the trial design or the drug itself.

Weight-based extrapolation of dose from adult data may be incorrect. So in the past, the way pediatricians would prescribe medications is simply to alter the dosage based on body weight adjustments. In many of the drugs that we have gotten data back on, we find that this assumption is incorrect. And this can lead to overdosing, as in Luvox for girls between the ages of 8 to 11 may require lower doses, and Lodine for juvenile rheumatoid arthritis requires about a two times higher dose per kilogram than is required in younger children than adults.

Additional lessons that we have learned are that there are undefined unique pediatric adverse events. Lotrisone for inflammatory dermatoses, for example, demonstrated that a third of 3- to 12-year olds had hypopituitary adrenal access suppression and decreased the amount of corticosteroids that they produced.

Camptosar, which is for chemotherapy, had marked dehydration and hypokalemia in children when compared to adults. And then a number of drugs — I just picked two. A number of drugs have effects on growth and behavior, many of which are reversible when the children come off the drugs, Ribavirin for hepatitis C and budesonide for asthma.

And then, finally, additional lessons that we have learned are that even within the pediatric population, which is quite a heterogeneous population, — we have heard from Skip. He has talked about premature infants and children who need tremendous care in the NICU. That's a very different population than your healthy 17-year-old football player.

There's tremendous heterogeneity within the pediatric population itself. And the way that pharmacokinetics, the way that drugs are metabolized is more variable within the pediatric population than originally anticipated.

So, for example, Pepcid clearance values change with age. And Sotalol or a beta blocker, in that particular trial, they found that you couldn't even make weight-adjusted changes based on pediatric information. Body surface area adjustments were needed to avoid cardiac arrhythmias.

And then, additionally, I wanted to point out that new technology now allows modifications that we can make to the risk-benefit ratio when we do pediatric trials, such as seen in pharmacokinetic studies, where it used to be that you had to do population pharmacokinetics and draw a lot of blood samples from a small number of children to generate a dose-response curve.

Now there has been the understanding that you can do sample pharmacokinetic studies, where you draw less blood samples from each individual child but you draw them from a greater number of children so you can get an integrated curve. So technology is also informing what we understand about pediatric trials.

I want to look further at the shift from risk-laden to hope-laden. This is a simple schematic that discusses the ethics in the altered paradigm; whereas, before there was paternalism and protectionism, with the focus on non-maleficence. The thought was that children should be excluded from unnecessary research risks. With research inclusion, there is more an honoring of the freedom to participate, accessibility, and beneficence.

So some of the societal and medical factors that have contributed to this shift are — as I had said before, there's been a lot of experience with children in oncology research, and it's been an extremely positive experience overall— the AIDS epidemic, in which research was the only setting where potentially lifesaving treatments were available, and advocacy groups and professional societies have been significant, Elizabeth Glaser Foundation and the American Academy of Pediatrics.

It’s not just societies limited to children’s interests, but even groups that have advocated on the parts of women, minorities, and elderly have informed us about demographic subgroups.

There's been a growing sophistication, as I mentioned, in the understanding of the heterogeneity of
the pediatric population. And then, once again, there's been a recognition that because of significant off-label use, children have been exposed to treatment risks in the interest of avoiding research risks.

So where are we today? Today I would say that there is a general consensus about scientific and ethical necessity of including children in research. But there still is a debate about how best to protect children in the research environment, and I'd like to talk a little bit more about two challenging areas: the risk levels found in 21 CFR 50, subpart D; and the involvement of healthy children.

So what I would like to do now is to go over in very schematic, simple fashion what subpart D is. Subpart D, our additional safeguards for children in clinical investigations, basically says that an institutional review board, an IRB, can authorize a pediatric protocol outright in their own committee's deliberations if they determine that that protocol falls into one of three categories. It can either be a protocol that is deemed to be only minimal risk exposure for kids, or it can be a protocol that has greater than minimal risk but it presents the prospect of direct benefit to the individual subjects enrolled in the trials, or it can involve a minor increase over minimal risk that presents no prospect of direct benefit to the individual subjects. However, it's likely to yield generalizable knowledge about the subject's disorder or condition.

Now, this, as I said, came directly from the national commission's report on children. At that time, they wanted to sort of leave, if you will, an out. They wanted to protect children, but they also wanted to allow an opportunity for important research to go forward, even if it didn't fall under one of these first three categories.

And so there is an additional category to subpart D. That basically says that if the IRB feels that the research cannot fall in one of the first three categories of subpart D but the IRB has determined that the research presents an opportunity to understand, prevent, or alleviate a serious problem affecting the health or welfare of children, then it can send that protocol to the federal agency for an expert panel review.

The way that works — and I'm going to show you towards the end of the presentation a few protocols that have come to the FDA and to OHRP under this provision. The way that works is the IRB will contact the FDA if it's FDA-regulated protocol or OHRP if it's research that's federally supported or conducted for federal review.

We convene an expert panel that draws off of ethicists, physicians, lawyers, education specialists, patient advocates, statisticians. We comprise a group that is varied and that we think each person's expertise will be significant to helping the deliberation of that protocol.

It's a public process, and it affords the opportunity, not only for written public comment but also for personal appearances on behalf of the public, any advocacy group that wishes to come. And we'll discuss a little bit more about what the comments have been like in relation to those referrals.

Once the expert panel has completed its deliberations, then the Pediatric Ethics Subcommittee chair presents those deliberations to the Pediatric Advisory Committee, which is the parent committee to the subcommittee.

The Pediatric Advisory Committee is chartered to make a recommendation to the FDA commissioner and, for purposes of these referrals, to the Secretary of HHS as well. So that we now have because of the liberation of the Pediatric Advisory Committee charter under the Pediatric Research Equity Act of 2003, which I mentioned, the ability to have a single federal panel. So that a referral that came to the FDA would not be reduplicated in its review by OHRP. That definitely streamlines the process and makes it more efficient and makes it more ethically and scientifically coherent.

So what I want to look at is in the first three categories, I'm going to talk about the referral process a little later, but now I want to talk about what does subpart D have to say about risk levels that we can expose children to as part of research?

The federal regulations define minimal risk. And they define minimal risk as the probability and magnitude of the harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.

So right off the hat, you can see that "daily life" in this particular definition is not tethered to the daily life of home. And the national commission had said in the daily life of healthy children, over the years it's been discussed and rediscussed and as recently as March of 2004, the Institute of
Medicine issued a report on pediatric research and interpreted the "daily life" to mean in the normal average healthy child living in a safe environment.

The other risk category that is found in subpart D is greater than minimal risk. That has no regulatory definition. In 50.53 category, it talks about a minor increase over minimal risk, but certainly there can be understood to be more than a minor increase over minimal risk, particularly in the referrals sent under that subpart D referral process.

So if we look at the regulations a little bit further, I've picked out and you can see highlighted in green some terms that might help us put risk into a little bit better focus.

50.52 refers to the notion of justifying the anticipated benefit to the risks based upon the anticipated benefits to the subjects. So there’s a risk-benefit calculus that occurs when you’re looking at the direct benefit category of subpart D.

It also says under 50.52 that the relation of the anticipated benefit to the risk should be at least as favorable as that presented by available alternative approaches.

50.53, the category that looks at minor increase over minimal risk, where you have the prospect of generalizable knowledge but not to the direct subjects involved, talks about the interventions or procedures present experiences to the subjects that are reasonably commensurate with those inherent in their actual or expected medical, dental, psychological, social, or educational situations.

And then, finally, 50.53, again, referring to the category of minor increase over minimal risk, states that the anticipated knowledge should be of vital importance to the understanding of amelioration of the subject’s disorder or condition.

So the preamble to the FDA regulations gave a series of examples of what they thought might be minimal risk when the regulation was published. You can see clean catch urinalysis, stool samples, and electroencephalogram, minimal diet or daily routine changes, or standard psychological tests. This puts the cap at a very low level.

And also one of the points that I wanted to make about the subpart D regulations is if you look at them, 50.52 and 50.53 all refer to subjects with disorders or conditions. So if you’re trying to categorize healthy children in a research protocol or healthy controls, then they either have to fall into the category of 50.51, which is minimal risk, which is described here in this slide, or they have to fall into the category of 50.54, which requires a federal referral for approval.

Now, what do we know about minor increase over minimal risk? Well, the national commission and the IOM report both suggested that minor increase over minimal risk be understood as slightly more than minimal risk, which, again, still implicates a very low level of risk that is acceptable for children as part of research.

This is a slide that sort of brings together a series of different suggested factors that might help us understand risk. And what you want to look at is not only the types of interventions but the times that they're repeated and the cumulative nature of the interventions in the protocol, whether there are special considerations for special populations.

So if you have children who are anemic, blood drawing may be more of a risk than it might be for a population of children who are not anemic. You have to look at the magnitude probability and duration of the risks and also the sense, as I had said before, that risk may be age-graded based on the heterogeneity of the pediatric population.

Look at the equivalence to daily life in terms of experiences and routine physical or psychological examinations or tests and look at commensurability or comparability, which I think are quantitative and qualitative comparisons to experiences already familiar to children being studied.

David Wendler in a very recent article stated that they were going to — this particular article was an attempt to try to quantify what are the risks that children are exposed to as part of daily life. And so they looked at what are the risks of the average child dying from a car trip or having some kind of an injury from sports.

The figures are up on the board. Basically, what Wendler and Emanuel concluded after they looked at those figures is that more empirical data is needed to quantify risk levels. They also suggested that maybe based on the fact that those risk levels seem to be higher than what some IRBs might interpret, that maybe IRBs are overestimating. Well, wait a minute. I'll go back up and say this again.
Based on the fact that these seem to be higher risk levels than one might imagine for children as part of daily life, they thought that maybe some IRBs are actually overestimating minimal risk.

An example that they use is that allergy skin testing by 60 percent of IRBs that were polled thought it was more than minimal risk. Some thought it was a minor increase over minimal risk and some thought it was more than minimal risk, but only about a third of the polled IRBs thought that allergy skin testing was actually minimal risk.

They also suggested that if the current federal regulations index risk to daily life and daily life seems to be more risky than we think it is based on empirical data, maybe the current federal standards are allowing excessive risk in some cases.

Basically they call for more empiric data on risk level. And when they were asked to look at a definition for minor increase over minimal risk, Wendler and Emanuel proposed that it be understood as the level of risk in the lives of those children who face a greater, yet socially acceptable, risk.

Friedman, Ross, and Nelson suggest that minimal risk should be understood as the probability and magnitude of physical or psychological harm is no more than that to which is appropriate for a scrupulous parent to intentionally expose a child for educational purposes in family life situations. And they suggest that there ought to be a single standard of research for children with or without the disorder or condition under study. What you see here is an attempt to try and place pediatric research and our understanding of risk within a social context, I think.

Friedman, Ross, and Nelson suggest that minimal risk should be understood as the probability and magnitude of physical or psychological harm is no more than that to which is appropriate for a scrupulous parent to intentionally expose a child for educational purposes in family life situations. And they suggest that there ought to be a single standard of research for children with or without the disorder or condition under study. What you see here is an attempt to try and place pediatric research and our understanding of risk within a social context, I think.

Now shifting over to healthy children, this is the second topic that I would like to cover. Going back to the Pediatric Advisory Committee, it is a committee of multiple specialists, including patient advocates and consumer representatives, et cetera, that meets to deliberate issues of clinical trials in pediatrics.

And it issued a consensus statement in 1999 on the topic of when should healthy children be included in pediatric research. And they stated that, in general, pediatric studies should be conducted in subjects who may benefit from participation in the trial. Usually this implies that the subject has or is susceptible to the disease under study.

Looking at the ICH document, E11, that I referred to earlier, it states that pharmacokinetic studies should generally be conducted in patients with the disease and if the disease process is similar, consider extrapolating efficacy from older to younger children. And information that can be obtained in a less vulnerable consenting population should not be obtained in a more vulnerable population.

So what you see suggested is that there be perhaps a staged approach to some pediatric research if it’s scientifically valid to do so.

ICH E6, which is the guidance on good clinical practice, states that unless an exception is justified, research should be conducted in patients having a disease or condition for which the investigational product is intended.

And then the Council for International Organizations of Medical Sciences in collaboration with the World Health Organization in 2002 issued 21 or 22 guidelines with a company in commentary. This is also understood as an international document. In it, they have a guideline specifically addressing research in children.

They state that before undertaking research involving children, the investigator must ensure that the research might not equally well be carried out with adults.

Now I would like to shift back to what our experience has been with the subpart D referrals and talk about three referrals that we have had since December of 2003, when the Pediatric Research Equity Act reauthorized the Pediatric Advisory Committee, and go through a little bit more before I do that of what a referral looks like.

So once an IRB goes through its own internal deliberations on a protocol and they determine that they think that there is an opportunity to understand, prevent, or alleviate a serious problem affecting the health and welfare of children but they just cannot approve this under one of the first three categories of subpart D, then they make the referral to the pertinent or joint federal agencies.

We convene an expert panel, as I mentioned to you before, and usually take about a day’s worth of deliberations. And those deliberations include any scientific expertise that we think needs to be
presented to the expert panel. It includes a presentation by the principal investigator. And it includes a representative of the institutional review board of record to flesh out what their applicable concerns have been with this particular protocol.

Then the referral is presented to the Pediatric Advisory Committee once a recommendation has been determined by the Pediatric Ethics Subcommittee. And those recommendations have to include what approval category the subcommittee recommends and whether or not there are any required modifications to the protocol or parental permission or assent documents or whether there are any recommended modifications.

That gets presented to the advisory committee, which deliberates. And in two out of three cases, the advisory committee added they didn't disagree with the actual recommendations of the subcommittee, but they added some stipulations to the list of recommendations.

Then our office writes a memorandum and transmits those recommendations along with a memorandum to the commissioner and some additional supporting documents. And the commissioner of the FDA makes a determination on whether or not the protocol can go forward. The commissioner could also decide the protocol can't go forward or could make modifications in the recommendations.

If it involves federally supported or conducted research, then the commissioner's findings are then transmitted to the Office for Human Research Protections. And they submit a memorandum to the Assistant Secretary for Health, who has been authorized to make these decisions on behalf of the Secretary.

And once the Secretary or the ASH, I should say, makes the final determination about whether or not that project can be funded or supported, then the project can go forward.

So it has actually been a process that sounds rather long and complex, and it is. But it has actually been a process that has been greatly streamlined since prior subpart D referrals before the initiation of the advisory committee.

So here are three examples of subpart D referrals. All three of them were initiated because the IRBs felt that the healthy children or the children who did not have the disorder or condition under study (the control group) did not fall into the first category of subpart D of minimal risk. And so, however, in each case, the IRBs felt that the research was significant research. And so these were referred.

In the first case, a single dose of dextroamphetamine — it was a ten-milligram dose — was to be given to children with and without attention deficit hyperactivity disorder. And then functional magnetic resonance studies were going to be done on all the children to see if there were differences in the neural anatomy of children with ADHD and children without ADHD.

In the second case, precursors, phospholipid precursors, were to be administered to neonates to try and determine preferential use of these phospholipids in the synthesis of surfactant.

In that case, these were premature infants who had respiratory distress syndrome, previously known as hyaline membrane disease. And they wanted to look at the control group. In order to minimize any risk that they exposed the control group to, they selected full-term infants who were also intubated and had arterial access in the intensive care unit, but they were there for purposes other than lung disease, such as awaiting cardiac surgery, et cetera.

So, in actuality, in that case, the main research intervention was the administration of the phospholipids, which can be found in hyperalimentation. There were no additional blood draws, and any of the tracheal aspirates that they were going to get were going to be gotten when routine care was delivered. So that was the comparison group there.

And then in a third case, gonadotropin-releasing hormone agonists tests in disorders of puberty, there has been a commercial lack, for various reasons, at this point in an adequate diagnostic test to try and differentiate some disorders of puberty.

So in this case, the principal investigator wanted to administer Lupron, which is a gonadotropin-releasing hormone agonist, to children who both have disorders of puberty and to children who do not have disorders of puberty, to try and establish some sense of whether this challenge test could be used as an adequate means to make this differential in diagnosis.

So it involved the administration of a single dose at the levels that are currently approved for the treatment of precocious puberty in children.
And I can expand on any of these descriptions, but the point that I was trying to make in this slide is that these were still fairly low levels of risk for the healthy children, but because of the way our subpart D regulations are written, they required a subpart D referral.

In the first case, the commissioner approved that the study went forward, but the study was eventually withdrawn by the sponsoring agency. In the second case, both the commissioner and the ASH approved that the study go forward. And in both of those cases, those were with stipulated and recommended modifications. And in the third case, that was just heard in November of ’05. So we don’t have determinations on that one yet.

I look upon these particular subpart D referrals as almost case precedents because they help us advance our understanding of what we think is acceptable or not acceptable in pediatric research.

So, in conclusion, there has been significant progress in pediatric therapeutic research from both the ethical and scientific perspectives. Federal legislative initiatives have proven to be important and useful tools in obtaining pediatric information.

And, as a consequence of study in children, there is an improved understanding of pharmacokinetics criteria for extrapolation, unique safety concerns, and trial designs for children. And a public dissemination of summaries of pediatric trial results is important because of the limited numbers of these trials.

Thank you.

CHAIRMAN PELLEGRINO: Thank you very much.

Rebecca?

PROF. DRESSER: At one point you were having a shifting from risk-laden to hope-laden in research. And so it sounds as though you think it’s a happy ending and everything is great, but I wonder if you still have some ethical concerns about what has happened along with this shift.

DR. GOLDKIND: Well, as my slides have demonstrated, I do think that pediatric research is extremely important. I don’t think that the willy-nilly inclusion of children in pediatric research is appropriate.

I think that the graded introduction of research into the pediatric population is important. And I think that there are a lot of considerations that have to go into whether or not children should be in the research.

I think, first and foremost, there needs to be attention to the scientific question and is this scientifically valid research, do children have to be included to answer the question, is this necessary research. Even if it’s perhaps scientifically valid, it might not be important research.

I think that once you get to the point — and then you, of course, have to ask whether information can be extrapolated from adults. Sometimes there are disease states where you can extrapolate efficacy, but you still may have to do some supporting studies, such as the pharmacokinetic studies or the safety studies, in children.

So you have to ask what studies do I absolutely have to do in children, what studies can I use from adults. I think you always have to ask what does the animal data show, the preclinical work, and is this a risk that we can take with children.

I think that the subpart D regulations are an important part of protecting children in research. I think that we do still have to answer the second part of your question, which is, what are some of the ethical issues in pediatric research?

One of them would be a better understanding of those risk levels. Another would be understanding the ability to globalize those risk levels as we look more and more towards globalization of research.

PROF. HURLBUT: Just a little clarification. You mentioned at one point that some studies were acceptable if they serve to prevent or alleviate serious problems in the health and welfare of children. I wanted to understand what that would include, because some conditions that you might want to study you could only study in children but don’t manifest themselves until later.

Why would you separate off children except for the fact that if you can do it in a later group; therefore, more voluntary subjects or with informed consent? The fact that it’s benefitting children, is that to the point of the regulation or is it that —
DR. GOLDKIND: Well, these regulations were specifically adopted to protect children. They require the additional safeguards for children in clinical investigations. So they do specifically address pediatric research.

PROF. HURLBUT: Let's use a hypothetical example that you wanted to study later effects of obesity and some circulating element or something, diabetes or something like that, and you could see a benefit to adults by studying children. Would that be acceptable?

DR. GOLDKIND: Disorder or condition is one of the aspects that I didn't discuss in this particular regulation. And disorder or condition is, again, another one of those issues that requires some further discussion, but it has elements of current illness or potentially an at-risk component to it or a future element to it. That's certainly at least the way the Institute of Medicine has understood it and other bodies as well.

So if you can think that there is a condition in children that may put them at risk for something in the future when they become adults, then there's the understanding that you can go ahead and look at the pediatric population and include them in research on that particular issue, given all the caveats that I've already addressed.

The reverse, where you have a disease entity in adults, you have to make the case for why it's scientifically valid and necessary to study the pediatric population, rather than a consenting adult population. And when you have to make that case, I mean, the onus is upon the investigators, the researchers, the IRBs to understand what it is about studying that pediatric population that warrants using a population that cannot consent.

PROF. HURLBUT: Just to take it one more step, you're saying, though, if you could justify that, you could do it. I'm thinking kind of hypothetically here, but there are quite a few conditions in adult life, like osteoporosis, for example, that you might gain some interesting information by invasive studies, slightly invasive studies and maybe very invasive studies.

I mean, this is hypothetical, but suppose by coring out a little piece of bone marrow you could predict something that would happen at age 50. I mean, could you theoretically justify that or age processes in studies like this eventually?

DR. GOLDKIND: Well, you know, as they say, the devil is in the details, but if you could in some way justify why you have to study that pediatric population and why they may eventually become at risk as adults and there were some meaningful invention or preventive mechanism that you could learn from that research, I would imagine that you could study children.

But there are a lot of caveats.

CHAIRMAN PELLEGRINO: Leon?

DR. KASS: Thank you very much. I learned a lot, starting from a very low level of understanding. So I appreciate this.

My general impression is that people are being very, very cautious, notwithstanding the shift of the paradigm if these are the cases, if these are the sort of illustrative kinds of cases that come for referral under the 50.54.

I'm trying to think ahead if we're told that there's a huge mushrooming of pharmacological agents, especially directed at children, and if the general rule is children are different and you need to do special kinds of treatment.

I guess the question is, what is the magnitude, anticipated magnitude, of the need for involving healthy children as research subjects, not for, say, a single shot to find the rate of renal clearance of a drug but for questions of toxicity or things where your population of patients is small; to do meaningful studies, you need larger groups. I'm thinking out loud.

I could see that once you begin to open the door to recruitment of healthy children as control groups here, for one reason or another, and we're talking about a greatly increased pharmacopeia, that this could be a very large business.

Am I right in thinking about that? Are people sort of concerned about the question of recruitment? Just to say, I mean, when the question of imposing risks on children is raised and then Norman Fost says, you know, venipuncture, well, I could persuade an eight or ten-year-old I think to be a good sport for that. I would be much more reluctant to persuade them to injections of medications, the
very hazard of which we're trying to study here.

So can you help me sort of think about that with respect to the healthy children question?

**DR. GOLDKIND:** Well, I think there are a number of components to your question. One is that I can hearken back to some of the data that we have. We have had about 45,000 children enrolled in clinical trials since the 1997 exclusivity regulations, legislation, so 45,000 children in about 8 years of trials that the FDA has requested. That's not all pediatric trials for sure. Those are trials that the FDA requested as part of their exclusivity arrangements.

Since FDA adopted its subpart D regulations in 1983, they have had roughly 20 subpart D referrals. So that's about one per year at the most, probably a little less than that.

And there are all kinds of factors that influence taking this in to the practical settings to be able to answer your question. There are all kinds of factors that influence pediatric research.

One of the reasons that the pediatric exclusivity incentives were so important to being able to accumulate the information that I've shown you today is because there were financial incentives associated with them.

Children tend to be, generally speaking, thankfully, healthy. The market for medications is smaller than it is for adults. And certainly for devices as well. And that has actually been one of the hindrances to pediatric device development. I've talked a lot today about drugs and biologics, but devices is another whole spectrum of products.

And sponsors are not always interested in pursuing that market. So that is one component, one real component, one practical component, to keeping a check, if you will, on how many kids are in pediatric trials.

Now, I think that the subpart D regulations are protective to children because of precisely the scenario that you described. And that is that when you have a cap on the amount of risk that children can be exposed to, the nice thing is there is this safety valve in subpart D, which is the referral system.

So, even though there is a cap, there is a low level of risk that they can be exposed to, there is a mechanism by which perhaps that research can still be advanced if needed.

I think that that cap mitigates just sort of the free flow of healthy children into research.

**CHAIRMAN PELLEGRINO:** Gil? Dr. Meilaender? And let me say we have exceeded our time. So this may be the last question.

**PROF. MEILAENDER:** This is a related question in some ways. It has to do with healthy children again. The shift from the risk-laden to the hope-laden paradigm, I mean, I think I understand what you mean by that and understand how it might be appealing in certain circumstances, but just conceptually or theoretically, it seems like the wrong paradigm to apply when thinking about healthy children.

I mean, in the hope-laden paradigm, what are they hoping for in doing it, just theoretically? Can you explain why, if we’re thinking about inclusion of healthy children in research, we shouldn't think in terms of the risk-laden, rather than the hope-laden?

I mean, I think the hope-laden paradigm emerged precisely in terms of people with serious illnesses wanting to get early and better access to care and so forth. And I can’t make it fit the healthy children model, but maybe I’m missing something.

**DR. GOLDKIND:** Well, you know, I think that perhaps we have to think of that in a somewhat flexible sort of way. I think that if you look at the figures that I presented and that Dr. Fost presented, that up until very recently, 80 percent of children who went to the pediatrician got medicines that were not tested in children.

So that meant that there were a lot of risks that children were being exposed to in just the average course of going to their pediatrician. This was not recognized by a lot of parents. This wasn’t recognized by children who were there getting their medications.

And there were — I presented maybe ten or so changes in the labeling just as illustrative changes, but there are over 100 changes. There are changes in over 100 labels.
So, I mean, I really think of the shift in paradigm really, as you say, to more children who have disorders or conditions who are trying to get some benefit out of the research, but I think that you can, if you’re flexible, understand this notion of hope in a more general way if you’re reducing the risks that kids are exposed to in their average course of encounter with the medical system.

CHAIRMAN PELLEGRINO: Well, thank you very much, Dr. Goldkind.

DR. GOLDKIND: Thank you.

CHAIRMAN PELLEGRINO: A very, very complete review. Thank you.

(Appause.)

(Whereupon, the foregoing matter was concluded at 5:11 p.m.)
EDMUND D. PELLEGRINO, M.D.

COUNCIL CHAIRMAN

Dr. Pellegrino is Professor Emeritus of Medicine and Medical Ethics and Adjunct Professor of Philosophy at Georgetown University.

He has served as Director of the Center for Clinical Bioethics at Georgetown University; head of the Kennedy Institute of Ethics and director of the Center for the Advanced Study of Ethics at Georgetown; President of Catholic University; President and Chairman of the Yale-New Haven Medical Center; Chancellor and Vice President of Health Affairs at the University of Tennessee; founding Chairman of the Department of Medicine at the University of Kentucky; and Founding Director and Vice President of the Health Sciences Center, State University of New York, Stony Brook, where he oversaw six schools of health sciences and the hospital, and served as Health Affairs Dean of the School of Medicine.

He has authored or co-authored 24 books and more than 550 published articles; is founding editor of the *Journal of Medicine and Philosophy*; a Master of the American College of Physicians; Fellow of the American Association for the Advancement of Science; member of the Institute of Medicine of the National Academy of Sciences; recipient of a number of honorary doctorates; and a recipient of the Benjamin Rush Award from the American Medical Association, and the Abraham Flexner Award of the Association of American Medical Colleges.

In 2004, Pellegrino was named to the International Bioethics Committee of the United Nations Education, Scientific and Cultural Organization (UNESCO), which is the only advisory body within the United Nations system to engage in reflection on the ethical implications of advances in life sciences.

Throughout his career, Dr. Pellegrino has continued seeing patients in clinical consults, teaching medical students, interns and residents, and doing research. Since his retirement in 2000, Dr. Pellegrino has remained at Georgetown, continuing to write, teach medicine and bioethics, and participate in regular clinical attending services.
REBECCA DRESSER, J.D., M.S.

COUNCIL MEMBER


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Robert P. George, J.D, D.Phil.

COUNCIL MEMBER

Robert P. George is McCormick Professor of Jurisprudence and Director of the James Madison Program in American Ideals and Institutions at Princeton University.


In 2008, Professor George received the Presidential Citizens Medal at a ceremony in the Oval Office of the White House. He is a winner the Bradley Prize for Intellectual and Civic Achievement; the Sidney Hook Memorial Award of the National Association of Scholars; and the Philip Merrill Award for Outstanding Contributions to the Liberal Arts of the American Council of Trustees and Alumni.

A graduate of Swarthmore College and Harvard Law School, Professor George earned a doctorate in philosophy of law from Oxford University. He was elected to Phi Beta Kappa at Swarthmore, and received a Knox Fellowship from Harvard for graduate study in law and philosophy at Oxford. He holds honorary doctorates of law, letters, science, ethics, civil law, humane letters, and juridical science.

Professor George is a member of UNESCO’s World Commission on the Ethics of Scientific Knowledge and Technology. From 1993-98, he served as a presidential appointee to the United States Commission on Civil Rights. He is also a former Judicial Fellow at the Supreme Court of the United States, where he received the 1990 Justice Tom C. Clark Award. He is the recipient of a Silver Gavel Award of the American Bar Association, the Paul Bator Award of the Federalist Society for Law and Public Policy. In 2007 he gave the John Dewey Lecture in Philosophy of Law at Harvard. In 2008 he gave the Judge Guido Calabresi Lecture at Yale and the Sir Malcolm Knox Lecture at the University of St. Andrews in Scotland.

Professor George is a member of the Council on Foreign Relations, and serves as Of Counsel to the law firm of Robinson & McElwee.
ALFONSO GÓMEZ-LOBO,
DR. PHIL.

COUNCIL MEMBER

Alfonso Gómez-Lobo, Dr. phil. Ryan Family Professor of Metaphysics and Moral Philosophy, Georgetown University. Professor Gómez-Lobo specializes in Greek philosophy, Greek historiography, the history of ethics, and contemporary natural law theory. He is the recipient of several awards, including a research fellowship from the Guggenheim Foundation. His latest book, *Morality and the Human Goods*, was published by Georgetown University Press in 2002.
WILLIAM B. HURLBUT, M.D.

COUNCIL MEMBER

William B. Hurlbut, M.D. Consulting Professor, Department of Neurology and Neurological Sciences, Stanford Medical Center, Stanford University. Dr. Hurlbut's main areas of interest involve the ethical issues associated with advancing biotechnology and neuroscience, the evolutionary origins of spiritual and moral awareness, and the integration of philosophy of biology with theology. He has worked with the Center for International Security and Cooperation on a project formulating policy on Chemical and Biological Warfare and with NASA on projects in astrobiology. He is the author of "Altered Nuclear Transfer," a technological proposal to our nation's impasse over stem cell research.

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Leon R. Kass, M.D., Ph.D., is the Addie Clark Harding Professor in the Committee on Social Thought and the College at the University of Chicago and Hertog Fellow in Social Thought at the American Enterprise Institute. He was chairman of the President's Council on Bioethics from 2001 to 2005.

A native of Chicago, Dr. Kass was educated at the University of Chicago where he earned his B.S. and M.D. degrees (1958; 1962) and at Harvard where he took a Ph.D. in biochemistry (1967). Afterwards, he did research in molecular biology at the National Institutes of Health, while serving in the United States Public Health Service.

Shifting directions from doing science to thinking about its human meaning, he has been engaged for more than 30 years with ethical and philosophical issues raised by biomedical advance, and, more recently, with broader moral and cultural issues. From 1970-72, Dr. Kass served as Executive Secretary of the Committee on the Life Sciences and Social Policy of the National Research Council/National Academy of Sciences, whose report, Assessing Biomedical Technologies, provided one of the first overviews of the emerging moral and social questions posed by biomedical advance.

He taught at St. John's College, Annapolis, MD, and served as Joseph P. Kennedy, Sr., Research Professor in Bioethics at the Kennedy Institute of Ethics at Georgetown University, before returning in 1976 to the University of Chicago, where he has been an award-winning teacher deeply involved in undergraduate education and committed to the study of classic texts.


His widely reprinted essays in biomedical ethics have dealt with issues raised by in vitro fertilization, cloning, genetic screening and genetic technology, organ transplantation, aging research, euthanasia and assisted suicide, and the moral nature of the medical profession.

Dr. Kass is married to Amy Apfel Kass, Senior Lecturer in the Humanities at the University of Chicago and Senior Fellow at the Hudson Institute. The Kasses have two married daughters and four young granddaughters.
Charles Krauthammer, M.D., Syndicated columnist. Dr. Krauthammer, a board-certified psychiatrist who received his medical degree from Harvard Medical School and practiced psychiatry at Massachusetts General Hospital for several years, writes a nationally syndicated editorial page column for The Washington Post Writers Group. He won the 1987 Pulitzer Prize for distinguished commentary. For 20 years, he has written articles on several bioethical topics, including human experimentation, stem cell research, cloning, euthanasia, and assisted suicide.

Dr. Krauthammer was a recipient of the Inaugural (2003) Bradley Prize, awarded by the Lynde and Harry Bradley Foundation, as well as the recipient of the 2004 Irving Kristol Award, given by the American Enterprise Institute.
PETER A. LAWLER, PH.D.

COUNCIL MEMBER

Peter Augustine Lawler is Dana Professor and Chair of the Department of Government and International Studies at Berry College. He teaches courses in political philosophy and American politics and has won several awards from Berry for doing so.

He is executive editor of the acclaimed quarterly journal, *Perspectives on Political Science*, and has been chair of the politics and literature section of the American Political Science Association. He also serves on the editorial board of the new bilingual critical edition of Alexis de Tocqueville’s *Democracy in America* and on the editorial boards of several journals. He is a member of the Society of Scholars at the Madison Center at Princeton University, the George Washington Professor on the American founding for the Society of Cincinnati for the state of Georgia, and he is a member of President Bush’s Council on Bioethics.

He has written or edited ten books. His newest book, *Aliens in America: The Strange Truth about Our Souls* is a starred, featured selection in *Booklist*, the journal of the American Library Association. Another recent book, *Postmodernism Rightly Understood*, was also widely reviewed and praised. His very long introduction to a new edition of Orestes Brownson’s *The American Republic* is now available.

His *American Political Rhetoric* (edited with Robert Schaefer) is used in introductory American government courses at a sizeable number of colleges and universities. The fifth edition was just published.


Some of the topics of his recent articles and chapters include Shakespeare’s *The Tempest*, William Alexander Percy, Walker Percy, Alexis de Tocqueville, biotechnology, bourgeois bohemian virtue, religion and conservatism, compassionate conservatism, conservationism, the filmmaker Whit Stillman on nature and grace, disco and democracy, *Casablanca* and the American dream, the future of human nature, the utopian eugenics of our time, the rise and fall of sociobiology, Richard Rorty, grade inflation and the Ivy League, Harvey Mansfield and Carey McWilliams, caregiving and the American individual, Christopher Lasch, virtue voters, culture wars, Flannery O’Connor and nihilism, Orestes Brownson, and postmodernism rightly understood.

Lawler has given invited lectures at more than 50 colleges and universities. He has received a large number of grants from both the Liberty Fund and the Earhart Foundation, as well as numerous other foundations.

Dr. Lawler recently edited a book on Tocqueville and American political life today and the fifth edition of *American Political Rhetoric*. He wrote an introduction to the new Sheed and Ward edition of John Courtney Murray’s *We Hold These Truths*, and book chapters on religion and the American founding, Locke and American greatness, Flannery O’Connor, and *Casablanca*. 
PAUL MCHUGH, M.D.

COUNCIL MEMBER

Paul R. McHugh, M.D. is the University Distinguished Service Professor of Psychiatry at the Johns Hopkins University School of Medicine. He was the Henry Phipps Professor of Psychiatry, Director of the Department of Psychiatry and Behavioral Sciences at the Johns Hopkins University School of Medicine, and psychiatrist-in-chief at the Johns Hopkins Hospital from 1975-2001. He is the author of 4 books and more than 150 papers.
Gilbert Meilaender, Ph.D.

Council Member

Gilbert Meilaender, Ph.D. Richard & Phyllis Duesenberg Professor of Christian Ethics at Valparaiso University. Professor Meilaender is an associate editor for the Journal of Religious Ethics. He has taken a special interest in bioethics and is a Fellow of the Hastings Center. His books include Bioethics: A Primer for Christians (1996, 2005), Body, Soul, and Bioethics (1995). He has recently edited (together with William Werpehowski) The Oxford Handbook of Theological Ethics.
Janet D. Rowley, M.D., D.Sc.

Council Member

Janet D. Rowley, M.D., D.Sc. Blum-Riese Distinguished Service Professor of Medicine, Molecular Genetics and Cell Biology, and Human Genetics, Pritzker School of Medicine, University of Chicago. Dr. Rowley is internationally renowned for her studies of chromosome abnormalities in human leukemia and lymphoma. She is the recipient of the National Medal of Science (1999) and the Albert Lasker Clinical Medicine Research Prize (1998), the most distinguished American honor for clinical medical research.

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