Oral History
#058

An Interview with
Dr. Mark Kline

Place of interview: Houston, Texas

Interviewer: Caitlyn Jones

Terms of use: Open

Approved: Mark W. Kline (Signature)

Date: 5/28/19
CAITLYN JONES: This is Caitlyn Jones with The oH Project, Oral Histories of HIV/AIDS in Houston, Harris County, and Southeast Texas. The date is May 28, 2019. We are in Houston, Texas, interviewing Dr. Mark Kline about his recollections concerning HIV/AIDS in Houston.

Thank you so much for agreeing to be part of the project.

MARK KLINE: Thank you.

CAITLYN JONES: Let’s start out with when and where you were born.

MARK KLINE: I was born in January of 1957 in Corpus Christi, Texas.

CAITLYN JONES: Who were your parents, and what did they do?

MARK KLINE: My parents are William Marshall Kline. He was born in Oklahoma, grew up in Central Texas, in Robinson, Texas. And my mother is Elsie Marie Ford and then, of course, Elsie Marie Kline. She was born in Austin, Texas, and grew up also in a rural area of Central Texas. They married when my mom was 17. My dad was back from World War II. He was, I think, 24 years old when they got married. They lived in Houston and then in Corpus Christi, where I was born. My dad was a civil service investigator. He did background checks for the federal government initially and then ultimately became a US [United States] Customs agent and then a special agent for the Drug Enforcement Administration. He was an undercover narcotics agent for more than 30 years.

CAITLYN JONES: Couldn’t get away with a lot when you were younger, I’m sure.

MARK KLINE: Right, I was on the straight and narrow. That was pretty well defined
around my house. My mother was a housewife, and so she raised us kids and never worked outside the home. My dad was on the road a lot, so my mom was really the primary parent for us.

JONES: How many siblings do you have?

KLINE: I have one brother and one sister. My brother is seven years older than me. My sister is four years older. My brother has a PhD in government, and he was a professor of political science for many, many years. He’s just recently retired. My sister is the longtime executive director of the Ronald McDonald House in San Antonio. She’s done that for probably 30 years, I think. I’m told that she’s the longest-serving Ronald McDonald House executive director in the United States.

JONES: What was it like growing up in your family, being the youngest, and you said you moved around a lot because of your father’s job?

KLINE: Right, yeah. I was born in Corpus Christi. We moved from there to McAllen, Texas, on the Texas-Mexico border, and then to Laredo, and then to Chicago. My father got a promotion and was the assistant agent in charge for the customs bureau in Chicago. Then we went from there to San Antonio. That’s where I graduated high school.

I would say my family was pretty typical. It was very much a loving family. My parents were a good team. They loved each other. They loved us kids. They took good care of us. We were solidly middle class. We weren’t rich by any means, but they always provided for us very well. All three of us went to public schools. The expectation was that we would do really well in school. If we came home with something less than an “A,” there were always a lot of
questions. I never wanted to disappoint my mom or dad. That was, in my early years, a very strong motivator for me.

My sister was kind of the wild one. I called her my hip sister. She was kind of the wild one in the family. She was the one who dated the boys my dad didn’t approve of and that sort of thing. Because I was the little brother, I took it upon myself to sort of annoy her every opportunity I got and keep an eye on her, spy on her, make sure that if she was doing something she wasn’t supposed to be doing, I’d let my parents know about it right away, that kind of thing.

JONES: Oh, you were *that* little brother.

KLINE: Yeah, I was *that* little brother. But it was a really good family to grow up in, and like I say, a very loving family. There was never anything that I felt like we needed that we didn’t have.

JONES: Tell me a little bit about the early inklings you had of what would be your future career. Even when you were younger, did you know you wanted to be a doctor?

KLINE: Yeah, I knew from a very early age that I wanted to be a doctor. I don’t know exactly why, because I didn’t have any doctor role models in the family. There really weren’t any scientists or scientifically-oriented people in the family. No nurses, no doctors, no one who was medical at all, so I’m not sure where it came from, but when I was really young, I would say from the time I was six or seven years old, I really loved biology.

My parents bought me a small Tasco microscope when I was probably seven or eight years old, and I would go out behind the house and collect stream water and look at it under the microscope. I paid my sister a nickel on several occasions so that I could stick her finger with a needle and collect a drop of blood
to look at under the microscope. So I began telling people I wanted to be a
doctor, and as I say, I don’t really know why that was. It was just something that
naturally attracted me from very early on.

By the time I got to high school, I was a good student. It was really my
sophomore biology teacher, Mrs. Coleman, who I think saw that I was interested
and had some talent. She was the one who really kind of groomed me and
cultivated me and said, “Yeah, you can do this. You can go to medical school one
day if you work hard and if you study and get a little experience.”

JONES: Going into your later years of high school, you did some volunteer work and
some internship at hospitals, and you were an EMT [emergency medical
technician]. Tell me a little bit about that, your early, early work.

KLINE: Mrs. Coleman introduced me to Dr. Waid Rogers, who was a professor of
surgery at the University of Texas Medical School in San Antonio. Dr. Rogers
had a research laboratory. I wasn’t old enough to drive. I guess I was just 15
years old, but my mother drove me out to the medical school, and I met
Dr. Rogers, and he offered me an opportunity to volunteer in his laboratory, so I
started just going a few afternoons a week after school. I would autoclave various
instruments, sterilize them. I would scrub beakers and clean glassware and that
sort of thing.

Gradually I kind of got incorporated into the routine of the lab, and so I
was working with the mice and with tissue cultures and those kinds of things, so I
learned a lot of things that I had known nothing about before. There was also a
surgical laboratory where small animals were used for various research projects. I
worked there a little bit.
Then the hospital, which was known as the Bexar County Hospital at the time — I think it’s called University Hospital now — in San Antonio was immediately next door to the medical school. I asked Dr. Rogers if he thought I might be able to volunteer in the emergency room there, and he made arrangements for me to meet the people who were in charge of volunteer services.

The next thing I knew, I was working on Friday and Saturday nights as a volunteer in the emergency room. I was kind of a novelty there, I think. I was 16 or 17 years old, and I was willing to work Friday and Saturday nights. I didn’t have much of a social life at the time. It was unusual for a kid that age to be working in the emergency room at that time of night, and so the nurses and the orderlies that worked in the emergency room kind of took me under their wing. I was like their little brother or something, and they kept an eye out for me, and they’d probably let me do a lot more than I should have been doing. When patients would come in for evaluation, I would take their vital signs. I would clean wounds. Occasionally one of the doctors would even let me stitch a wound.

JONES: Oh, wow, they gave you the needle.

KLINE: Yeah, these were the old days. I really was kind of hooked on that. I loved working in the emergency room.

It was at that point I decided I wanted to become an emergency medical technician, an EMT, and I took an EMT course, I think when I was still 16, and got certified as an EMT and then ultimately as a paramedic. That was about 1973, 1974, 1975.

It was just at that time that the City of San Antonio was developing their emergency medical service, their ambulance service, and it was going to be run
by the fire department. I met a number of the fire department personnel who were training to work on the ambulances and became friendly with them. When that service started, they invited me to work on the service, and so I worked with the fire department ambulances for about four years, as well. I would work shifts out of various firehouses around San Antonio. I worked a few thousand hours in the emergency room, and I think I made well over a thousand emergency calls on the ambulance over time, and so I was pretty busy volunteering and still working in the lab for Dr. Rogers.

JONES: What happened after you graduated high school? When did you graduate high school?

KLINE: I graduated high school in 1975. I was a National Merit scholar, and I got offers to go to a fair number of colleges around the country, but I was so busy. I was still working in the research lab at the medical school in San Antonio, and I was very active in the emergency room and on the ambulance service. Trinity University in San Antonio offered me a full scholarship, as a National Merit scholar, and so I thought this is too perfect. I can keep doing what I’m doing workwise and volunteer-wise and go to school right here in town, so I opted to stay in San Antonio.

I knew I wanted to go to medical school. I was in a big hurry for some reason. Again, I don’t know exactly why, except that I was just impatient to do what I knew I wanted to do. I had some advanced placement hours at the time I started. I also went to summer school before my first fall semester at Trinity. Did the fall and the spring semester. The following summer, I went to summer school, and then I spent a second fall and spring semester at Trinity, so I was
there, really, for two full years and two summers, and then I left, so it was a really quick experience, but I was there just for two years.

JONES: What happened after Trinity?

KLINE: I had applied for medical school. Johns Hopkins had a program they called the “two-in-five” program at the time. They took a small number of students who had completed two years of college, and in five years the people who completed the program at Hopkins would earn a BA [bachelor of science] and MD [doctor of medicine] degree from Johns Hopkins. I got accepted into that program, and I went off to Baltimore, to Hopkins. I was there about a year, and I was just miserable. I was fine with the school itself, but Baltimore was a terrible place to live in 1977, 1978.

JONES: Why is that?

KLINE: Especially East Baltimore, where the medical school is located and where those of us who were in the “two-in-five” program lived, was a really depressed part of the city. There was a lot of violence. I actually, after having been there a couple of months, saw a man shot and killed in front of the dorm. That really shook me at the time. He was getting out of a taxicab, and this guy accosted him. I watched it out the window of my dorm room. This guy accosted him, and he tried to run, and the guy shot him as he was running, and he fell in the middle of the street. The police were called, but he died in the middle of the street. I had no money, no resources. I didn’t have a car. So I felt very trapped there.

After about, I don’t know, I had been there five or six months, I guess, I was feeling a little desperate. I thought, boy, this is not really what I thought I had signed up for. I read all I could read about medical schools. I thought, gosh,
I’m at Johns Hopkins. I hate to give up Johns Hopkins for just any place, but I really wanted to come back to Texas since I read about Texas medical schools, and I decided that Baylor College of Medicine was the only place that I would give up Johns Hopkins for.

I sent an application to Baylor, and they offered me an interview. I applied only to Baylor, I didn’t apply anywhere else, and they accepted me.

I told Hopkins that I was going to leave, and they were pretty upset with me. They made me sit down and talk with the dean. He tried to talk me into staying, but I had to get out of Baltimore, really, at the time. In 1978 I left Baltimore, and I came to Houston to attend Baylor College of Medicine.

JONES: You finished medical school at Baylor, correct?

KLINE: Right.

JONES: And then you started your residency at Texas Children’s?

KLINE: Right, which it’s the Baylor College of Medicine pediatric residency, but it’s located at Texas Children’s Hospital.

JONES: What was your residency like? Why did you choose pediatrics?

KLINE: I hadn’t given a minute’s thought about pediatrics in coming to medical school. It never had crossed my mind as something I might like to do. My only point of reference was really the work I had done in the emergency room. I thought maybe I’ll be an emergency medicine doctor or a trauma surgeon or something like that, but when I started doing clinical rotations in medical school, I didn’t gravitate to those personalities. I learned I didn’t really have the personality that the surgeons had or that the emergency medicine people had, and so that kind of quickly turned me off, just to be honest about it.
On the other hand, when I got to my pediatrics rotation, it was a much warmer environment. I liked the fact that the doctors spent a lot of time talking to families and mothers and fathers. I liked dealing with the mothers especially. I loved the kids, of course. I found that the kids were fun. Internal medicine had been interesting to me in an intellectual way. Pediatrics was interesting in that same way, but it was fun in a way internal medicine wasn’t. The kids were fun, and most adult patients are not a whole lot of fun.

I remember thinking this is interesting to me, stimulating to me in the way internal medicine was, but I’m having a whole lot more fun doing it, and so I decided that pediatrics might be what I’d like to do. I also really liked the detective work that goes into taking care of young kids, because they can’t really tell you what’s wrong, and so you have to be a pretty good diagnostician, and I liked that.

Before I knew it, I had decided that I wanted to be a pediatrician. I had made an appointment to see Dr. Feigin, Ralph Feigin, who was the chair of pediatrics at Baylor and physician-in-chief at Texas Children’s at the time.

I came into his office, and he said, “Oh, I know all about you. I’ve been hearing about you. You’re a really good student.”

It kind of blew me away that he actually knew who I was. I told him that I thought I was interested in being a pediatrician, and he said, “Okay. Let’s sign you up. Let’s get you right into the residency program.”

I said, “Give me a little time. I’ve got another year.”

He said, “Why are you spending another year in medical school? Don’t you have enough credits to graduate this year, essentially right now?”
I said, “Yeah, I do, but I’m going to take electives and do some other things.”

He said, “If I guaranteed a spot in the residency program for you, would you like to join us right now?”

I was so taken aback and floored that this famous pediatrician was so enthusiastic about having me in the program that I said yes. The next thing I knew, I had signed up and was starting residency training. It sounds odd in the context of 2019, but I guess that’s the way it worked sometimes. In 1981, things were a little bit different. They were less formal and less rigid than they are now.

JONES: You did your residency. That’s a three-year program? Then you were the chief resident your fourth year?

KLINE: Right.

JONES: What does that entail?

KLINE: Being chief resident at a big, prestigious program like Baylor’s is a pretty big deal. It’s kind of a launching pad for a career in academic medicine typically. It’s a big honor to be asked. When somebody like Dr. Feigin, who’s this sort of eminent figure in American pediatrics, asks you to be chief resident, basically there’s one answer you can give, and that’s, “Absolutely, yes, I’ll do it.”

You’re in charge of the other residents. At that time, there were about 150 residents in the program at any given time. I spent a year doing their schedules and handling behavioral issues and whatnot. It was a really good experience. I supervised the pediatric intensive care unit at the county hospital, and that was a good experience. I learned a lot about taking care of critically ill kids. It was another year of clinical experience, and some supervisory experience that I had
not had previously.

Then I went from there directly into infectious disease fellowship. I had decided that I wanted to be an infectious disease doctor. I did three years of residency, then a year of chief residency, and then two years of fellowship in infectious diseases.

JONES: Was that your first exposure to HIV or AIDS, when you did your fellowship?

KLINE: Yes and no. That was 1985 to 1987, so HIV and AIDS were pretty new. There were very few children with HIV in Houston at that time. I think in the entirety of my two-year fellowship in infectious diseases, I took care, really, of only one child that I can remember specifically who was HIV positive. She was a little girl from the Valley, from the Rio Grande Valley. I may have taken care of one or two others, but I got very little experience in pediatric HIV.

In fact, again, it sounds strange in retrospect, but at that time, there was some debate as to whether HIV or AIDS could even occur in a child. There were experts who were saying no, knowing what was known at the time about the epidemiology of the disease, that children would not have it. Of course, quickly it became apparent that children were becoming infected. I had very little experience when I finished my infectious disease fellowship. It was a matter of timing. There just weren’t very many cases at that time.

JONES: After your fellowship, you got an opportunity in St. Louis, correct?

KLINE: Right.

JONES: Tell me a little bit about that.

KLINE: When I graduated fellowship, Baylor didn’t really have a job to offer me. Texas Children’s, I wanted to stay in Houston, but there was no job for me here, and so I
looked around at a few opportunities around the country.

I ended up in St. Louis, at St. Louis University and Cardinal Glennon Children’s Hospital. The chief of infectious diseases there, Lisa Dunkle, had trained under Dr. Feigin. He knew her well, and of course he knew me very well, and so he connected the two of us. We hit it off and began working together. I had been in St. Louis a short period of time. This would have been the latter half of 1987.

My new chairman called me in, Dr. Tom Aceto. Dr. Aceto began by buttering me up. He told me how proud they were to have recruited me and how happy he was that I was there. Then he said, “We have a regional blood center here at the hospital where we take care of a lot of hemophiliac boys, and we’ve got about 15 hemophiliac boys that have been diagnosed with HIV, and I need somebody to take care of them. We were thinking about starting a new clinic, called the Comprehensive Immune Deficiency Clinic, and I wonder if you’d be interested in directing that?”

I remember thinking gosh, this is pretty cool. I’ve been here just a few months, and I’m already being asked to direct something. On the other hand, I also thought to myself he’s probably asked everyone else already, and they all told him no. But I thought it’s an opportunity to learn about HIV. I didn’t know very much about it at the time. I also wanted Dr. Aceto to know that I’d be a good citizen in the department; that he could count on me. So I said okay, I’ll do it, and so I began taking care of these boys.

To my surprise, I really loved it. I loved the boys. I loved getting to know the families. I loved the continuity. I saw these kids over many visits over the
course of months and years. I loved that aspect of it. It got me out into the community in a way that I hadn’t been before. I found myself talking to a lot of school groups and church groups about HIV.

That was a time of very heavy stigma surrounding the disease. Kids were being barred from the public schools and from public swimming pools, burned out of their homes in some cases. I felt like by educating communities, I was helping to reduce stigma and helping children and their families live better.

It was a pretty depressing time because we didn’t have much to offer therapeutically. We were just counterpunchers. We would treat the complications of the disease, but we didn’t have anything to alter the underlying condition. We didn’t have antiretroviral drugs. It was a pretty depressing time from that standpoint, but I really enjoyed it. It was still just kind of part of what I was doing. I had a lab, and I was doing research in other areas. I was working in the hospital, doing general infectious diseases. But HIV was another aspect of my job there.

JONES: How long were your patients living?

KLINE: Some died, and some were lucky and survived all of these terrible infections and sometimes cancers that they developed. It was hit or miss. As I said, we didn’t have much to offer for treating the HIV, per se. Yeah, there were a few of the boys that I took care of that lived for years with the disease, and there were others who were diagnosed with HIV and then died within a matter of months.

JONES: Was HIV a big thing in the hemophiliac community at the time?

[END OF AUDIO PART 1]

KLINE: Yes. That is a lesser-known aspect of the HIV epidemic in America, I would
say, that I think roughly two-thirds of the hemophiliac boys — because hemophilia is, generally speaking, an X-linked disorder, it’s almost always boys — about two-thirds of the hemophiliac boys who were alive in the United States in 1985 became HIV positive, and most of them died before the advent of highly active antiretroviral therapy, which was in the mid-1990s.

That was a very sad aspect of the epidemic, was that this disease that had been so crippling of hemophiliac boys for generations, going back many, many generations, finally clotting factor concentrates came available and the prognosis improved dramatically, but it was those same clotting factor concentrates that conveyed HIV infection. It was a tragedy, and there was real irony in the fact that the treatment that had made hemophilia much more bearable was also what caused all of these boys to become HIV positive and then to ultimately die.

JONES: You were in St. Louis. How long were you in St. Louis?

KLINE: I was there for three years.

JONES: How did you get back to Houston?

KLINE: I got a call from Dr. Feigin. He called me, and he said that they had about 70 HIV-positive children at Texas Children’s Hospital, and he said that they were in care in three or four different clinics here at Texas Children’s. He said that he was looking for an infectious disease doctor who knew something about HIV to organize their care and he had heard that I was taking care of kids with HIV in St. Louis, and he asked me if I might be interested in coming back and doing HIV work essentially full-time.

I thanked him for calling me, and I told him I wasn’t sure. I said, “I enjoy it, but I’m doing all these other things that I enjoy, too.”
He said, “Why don’t you fly down, and we’ll talk about it?”

He wanted me to come down the next day. I couldn't. I was in clinic. I came down about 48 hours later to visit with him. Once again, he had me in his office, and he was pretty persuasive. Every time I sat in his office to talk with him about something, he persuaded me typically to do whatever it was he wanted me to do.

He again made his pitch, and I said, “I’m just not sure if this is something I want to do full-time.”

He said, “Let me explain this to you. This is going to be the challenge of your generation as a pediatric infectious disease doctor. You can either do this, or I promise you if you opt not to do it, you’ll look back one day with regret that you didn’t.”

I pondered that for a few seconds and kind of fidgeted and stared at the ceiling and the walls, and I said, “Okay, I’ll do it.”

Within just a few minutes, he had negotiated my salary and every other detail of the job, and I left his office that day having agreed to move back to Houston to be an HIV doctor.

JONES: Very quick decision.

KLINE: It was a quick decision, yeah. I didn’t think it through, probably, very thoroughly, but it worked out really, really well for me. I’m glad that I was open-minded to it and that it worked out the way it did because it was a blessing to find my way into the world of HIV and to have the opportunity to do it from that point on.

JONES: When did you come back to Houston?
KLINE: 1990. My first day at Texas Children’s Hospital and Baylor as a member of the faculty was August 1, 1990.

JONES: What was your experience like, sort of getting back into the groove and in a different role here?

KLINE: I was very busy. There were, as I said, about 70 kids here who had been diagnosed with HIV when I came back. The clinic grew very rapidly from 70 to 100, and then 150, and then 200, and then 300, and nearly 400 children. We were diagnosing a lot of new cases of pediatric HIV, children who were admitted to the hospital with one complication or another. Unfortunately, there were a lot of deaths.

It was also an exciting time in the sense that antiretroviral drugs were becoming available, initially just AZT [azidothymidine], and then ddI [didanosine]. Those drugs used alone were really of only modest benefit. They could improve a T-cell count. They could stabilize a child’s clinical condition for months — for short periods of time. They really were not very potent. They were not very durable.

In those days, I would say to the mothers, “Look, there are a lot of new drugs that are going to be coming along. We’re going to know a lot more about how to treat this disease, but for now, let’s buy a little time with what we’ve got. My goal is to keep your little boy or your little girl healthy long enough so that when a cure finally does come, he or she will be here to benefit from it.” That worked for some, and it didn’t work for others.

I got very involved in HIV clinical research. That became my career, really, was taking care of children with HIV and then doing clinical research. I
got a lot of funding from the National Institutes of Health and from foundations to
do studies of new antiretroviral drugs in children, and I was among the first
doctors in the world to use many of the medications in children with HIV, so it
was exciting to have an opportunity to study those drugs and to improve the
treatment of children with HIV. I was busy writing papers, publishing research,
getting grants, enrolling children into clinical trials.

JONES: You did have some trouble, I think, with the FDA [Food and Drug
Administration] in regards to one combination drug. They didn’t want to test it
on children, and you kind of convinced them otherwise.

KLINE: Yeah, that was 1996. I refer to that period between like 1985 and 1995 as kind
of the “bad old days” of HIV because we had so little to offer therapeutically, and
there were so many deaths. 1995 was really the peak year, and I think I went to
25 funerals in 1995. To be honest, I think that I was about at the end of my rope,
the emotional toll of seeing so many children die.

One of the things that is not highlighted but is very true about pediatric
HIV is that in those days, a diagnosis of HIV in the child generally was a death
sentence for the entire family. Because the child was HIV positive, that meant
that the mother was HIV positive, because the children almost invariably had
been infected either at birth or in utero from their mothers. Then if the mother
was positive, the father was almost invariably positive. Frequently there were
other children in the family who had been undiagnosed but were HIV positive.
This is not like other diseases where you have a deathly ill child but everyone else
in the family is probably healthy. Frequently you were giving a death sentence to
the entire family. The toll that that takes on the caregivers is really high.
By 1995, I had just about had it. I don’t know how much longer I would have been able to go on. Then reports started coming out of these drug cocktails, combinations of antiretroviral drugs that were being studied in adults, not in children at that point, that could near-totally suppress the ability of HIV to replicate in the body and damage the immune system, and there were these dramatic reports of adults who had been in hospice care, who were dying, and who were restored to health, and they got up, they became healthy again, they went back to work. They rose from the dead, essentially.

At the World AIDS Conference in Vancouver, in the summer of 1996, there were a number of reports of case series. I was in Vancouver for that meeting, and I came back to Houston, and I said we have to give these therapies to our kids. We can’t wait. We’ve got to do those right now.

At the time, the drugs that were the essential element of those combination regimens, the protease inhibitors, were not being studied in children at all. I called several of the pharmaceutical companies. I had good relationships at the pharmaceutical companies because of all of the work that I had been doing in drug development.

They all told me no, that they wouldn’t release the drugs for anyone under 16 years of age.

I said, “You’ve got to do this. What have we got to lose? We have kids who are dying every week or every other week. What have we got to lose?”

They said, “No, it’s not possible.”

So I called the FDA, and I told them, “Tell me what I need to do to get your permission to use these drugs.”
They outlined kind of an arduous schedule of monitoring and evaluation; that I would need to see the children every week, I would need to do blood work every week, and to document that the drugs weren’t causing any harm.

I said, “Okay, I’ll do it,” and so I put together a protocol, and I got approval from the FDA, and the FDA ordered one of the pharmaceutical companies to release their medication for me to use.

Initially I identified, really, the 12 sickest kids that I had in my clinic at the time, kids that I thought would likely die within the next several months without the therapy, and I put them on the research protocol. With informed consent of their families, I put them on a protocol, and 12 out of 12 came back to life. They gained their weight back. They started playing again. They went back to school. We expanded from there and never looked back.

There were really two very early studies showing that what became known as highly active antiretroviral therapy could work for the children the way it was working for adults: the one we did here at Texas Children’s Hospital, and then there was a separate study done at the National Cancer Institute. Those two papers were published almost simultaneously, but we were able to show that children could benefit in the same way that adults were benefiting, and highly active antiretroviral therapy became the standard of care for children with HIV.

JONES: Back before you pioneered that, back in the bad old days, you talked a little bit about there being a stigma back when you were working in St. Louis. Was there that same stigma in Houston at that point, or had that changed, and were you seeing that Houston was sort of a hotbed of HIV/AIDS diagnoses?

KLINE: Houston was a hotbed in terms of numbers, yeah. There were a lot of adults and
children with HIV in Houston. It was definitely one of the areas where the epidemic was concentrated. Our clinic, at its peak, with nearly 400 children with HIV, was one of the two or three largest pediatric HIV clinical programs in the United States. I mean, it was a very, very challenging time. I was the HIV doctor for Texas Children’s Hospital in those days, and so it was really a 24/7 [24 hours a day, seven days a week], 365-day-a-year job.

When I left town, on the rare occasions that I left town, I’d have to find cross-coverage, and I frequently had a lot of difficulty finding anybody who was willing to cross-cover for me. When I was here, I was getting calls all hours of the day and night about children who were in the emergency center, sick with one complication or another, children in the ICU [intensive care unit], children on the regular floors at Texas Children’s, and I took care of all of them.

That was another aspect of the emotional exhaustion that I referred to earlier. It was just incredibly taxing physically. There was really no respite from it. There wasn’t for the families, for sure, or for the kids, and there really wasn’t for the caregivers either.

I had a team of nurses and nurse practitioners and social workers, and we were a very cohesive group. We all worked together really, really well, but I was kind of the captain of that ship, and I felt responsible for everything that happened. I took that very seriously.

JONES: As far as the public perception of HIV was at that time, was it better than what it was back in 1987?

KLINE: Yeah, the stigma, I would say, began to decline over time as we learned more and more about HIV and we learned that it’s not the easiest virus in the world to
transmit or to catch. What really turned the tide on stigma was the advent of highly active antiretroviral therapy. When HIV was no longer a death sentence, the stigma began to dissipate. I think that was underappreciated at the time, that the treatment would have that kind of impact, but treatment was a very powerful destigmatizer.

JONES: After you sort of pioneered these combo therapies in kids, you saw that it was working in Houston, and so these kids were living longer, they were being normal kids again, which is something that they didn’t think would happen, that their parents didn’t think would happen for a long time. So after you started doing that in Houston, you kind of put your focus toward the international community. Tell me a little bit about the BIPAI [Baylor International Pediatric AIDS Initiative]. Is that how you say it? [“be pie”]

KLINE: BIPAI, yeah. Yeah, there was a little bit of serendipity involved. I think we were all feeling a little bit smug, maybe. We had helped develop these therapies. Kids were feeling good. The families were feeling good. It was a time of a lot of hope and optimism. We felt like we had really turned a corner, where HIV was concerned, and it was just at that time that I had an almost-chance meeting here in Houston with a visiting Romanian Parliament member. I just happened to run into him at a talk that I had gone to listen to, and he asked me what I did for a living.

I said I’m a pediatric AIDS doctor.

He said, “Oh, you know, we have a terrible problem with pediatric AIDS in Romania,” and I think I was vaguely aware that there was an issue in Romania. I didn’t know any of the specifics. He began describing this epidemic in
Romania. He said there were hundreds of children who had been diagnosed with HIV. They were living in a lot of public orphanages and in hospitals in Bucharest and other cities.

He said, “You should come to Romania. I could introduce you to some of the doctors. Maybe there are some things that you could do collaboratively.”

I said, “That would be really interesting,” not thinking that I would ever actually go.

At the end of this talk that I’d gone to listen to, I left. I came back to work. I didn’t give it a second thought. But he sent me a letter with an invitation to visit Romania, and Texas Children’s Hospital said that they would pay my way if I wanted to go. I thought that sounded like a pretty good deal, so a small team from Texas Children’s Hospital made a trip to Romania. I was the only physician who was part of that team.

JONES: What year was this?

KLINE: This was in 1996. We spent two weeks there. I gave several talks to medical groups about some of the new medications that were being developed to treat HIV, and we visited a number of hospitals and orphanages. I was just floored by what I saw. That was a point in my career when I thought I knew everything there was to know about pediatric HIV and AIDS. There was nothing you could tell me or show me that I hadn’t already seen. Yet these were the sickest kids I had ever seen in my life, and I saw complications of the disease that I had never experienced here in Houston or in St. Louis. It was really sobering for me because I came to the realization that all of the work that I had been doing to try to improve treatment for children with HIV was not impacting many of the
world’s children who needed it most. The medications were completely unavailable in Romania, and there was no prospect of the kids ever receiving them. In fact, all of the kids that I saw on that initial trip would be long dead before antiretroviral drugs ever made their way to Romania.

I got on the airplane to fly home at the end of two weeks there, and I just kind of sank into my seat, and I thought, “Wow, what are you going to do now?” I spent 10 hours on the airplane on the way home writing out a plan.

When we landed in Houston, I called Dr. Feigin’s office and asked to have an appointment with him the next morning. I met with him, and I was probably 90 seconds into describing what I’d seen and experienced in Romania, and he looked a little disgusted with me and said, “Cut to the chase. What do you want?”

I said, “I want to start a program in Romania to treat children for HIV.”

He said, “You’ll have to figure out how to fund it,” which was a real challenge in those days, because there really were no grant monies available for international HIV work. But I started looking around and ultimately found a small grant from the Open Society Institute, from George Soros. That was the first grant. It was about $50,000. $25,000 from Elton John, money from here and there, small grants, and before I knew it, I was back in Romania training nurses, training doctors.

I decided to focus on Constanţa, Romania. That was really the epicenter of the epidemic in Romania. At the municipal hospital there, there was a larger number of children with HIV than anywhere else in Europe, really. More children with HIV were treated at that hospital than anywhere else. And just started putting together a treatment program.
JONES: How were these kids contracting HIV? What was the main source of their infection?

KLINE: Yeah, it’s sort of a unique epidemic. It was all nosocomial, or hospital-acquired. It was needles and intravascular catheters and the indiscriminate use of blood products unscreened for HIV. Blood was used in small aliquots, injected typically into the muscle of the thigh of children for a variety of nonscientific indications. It was given to kids to prevent recurrent infections, as a source of iron, to stimulate the immune system. It was given to infants with failure to thrive.

The doctors told me that they would take this blood, they would pull up blood into a large — like 35-milliliter or 50-milliliter — syringe and would just go around the ward injecting blood into the thighs of kids, and they’d do that on virtually a daily basis. There was one survey of Romanian hospitals in those days that found that the average child who was hospitalized in one of the public hospitals in Romania received more than one injection a day.

So there was that, and then there were disposable needles and catheters that, because they were hard to come by and the hospitals weren’t properly resourced, were used in multiple children. This probably started in Constanța, which is a port city. It spread across the entire country, and over time probably more than 10,000 children were infected with HIV just through bad medical practice.

JONES: What were some of the complications that you saw there that you hadn’t seen in the US?

KLINE: Severity of the wasting. Kids who were just skin and bones, literally. They’d
look like concentration camp survivors. Norwegian scabies, this terrible infection with a mite on the skin that causes the kids to shed all of their skin. Literally, if they’re standing in front of you and they stand in one place for any length of time and then they walk away, they leave a pile of skin on the floor in front of you. Open sores on their skin. Deep ulcers in their mouths, sometimes half an inch or more deep through the palate or the roof of the mouth. Blindness from cytomegalovirus. Encephalopathy, where the child is growing up and acquiring developmental milestones normally — they start to speak, they start to crawl and then walk and run — and then they begin to regress and lose those abilities entirely, so you see four- and five-year-old children who were once talking and walking and running and playing and doing everything a child that age should do, who are now just infantile again. They have primitive, infant reflexes. They can’t walk. They can’t talk. It was that sort of thing, and lots and lots of deaths, of course.

JONES: Once you got over there, what was it like getting started once you got a little bit of funding?

KLINE: We started very simply with training doctors and nurses, trying to help the doctors and nurses understand better how to take care of the children, and we started to see modest improvements in the children’s health. We put together a tuberculosis treatment program.

A lot of the children with HIV were coinfectcd with tuberculosis, and it was easier to get tuberculosis drugs than it was to get HIV drugs. We gave nutritional supplements. We gave a simple antibiotic, trimethoprim and sulfamethoxazole, to prevent pneumocystis carinii pneumonia. Again, we started
to see modest improvement in the children’s health.

I knew that we had to put together a program of highly active antiretroviral therapy, and I didn’t have any confidence that we could do that at the municipal hospital in Constanța. I sat down with the hospital superintendent, and he said, “Well, you know, we don’t even have refrigerators. We don’t have locked storage. We don’t have medication logs.” There was no way to guarantee that even if we were able to obtain the drugs, they wouldn’t be diverted and misused.

So I started looking around for a building to house the program, a treatment program. Ultimately I found an old, abandoned orphanage that was about three kilometers from the municipal hospital. It was actually owned by the City of Constanța. It was in a terrible state of disrepair. There were actually gypsies living in the building. There was graffiti on all the walls. There was human excrement all over the inside of the building. Every window had been broken. Every door had been kicked in. But I had a building engineer working with me. He had looked at a couple of other properties for me, and I asked him to come take a look at it, and he said it’s got some cosmetic problems, but structurally it’s sound. He said it will be here 100 years from now.

[END OF AUDIO PART 2]

KLINE [continuing]: So I decided that we should try to renovate it. I had about $100,000 in an account. These were funds left over from various grants I had gotten for work in Romania. I was going to put that money towards the renovation, but when we budgeted all of this out, it looked like it was going to cost about half a million dollars to renovate it and open it.
Just at that time, the *Houston Chronicle* published an article about pediatric AIDS that they titled “Worlds apart,” and they contrasted the advances that had been made in treatment in the US with what was going on in Romania. The medical writer, Leigh Hopper, and the photographer, Smiley Pool, had traveled with me to Romania, and so there was this beautiful 20-some-odd page story in the Sunday *Houston Chronicle*, beautifully written, beautifully photographed.

The next day, I was in my office at Texas Children’s, and a woman called. She said, “Dr. Kline, my name is Sister Olive, Sister Olive Bordelon. I’m the CEO [chief executive officer] of the Sisters of Charity of the Incarnate Word. I don’t know if you’re aware, but the Pope has declared a jubilee year, and he’s asked all of the congregations to look over their mission statements to see if they should be amended or expanded in some way. Over the weekend, our board of directors were meeting here in Houston, and on Saturday we talked a lot about pediatric AIDS as a possible expansion of our mission, and then the Sunday newspaper arrived with this amazing story about your program. We considered it almost providential, and it said in the article that you want to build this treatment center for children with AIDS in Romania. How much is that going to cost?”

I said, “It’s going to cost about half a million dollars.”

She said, “Can I send you a check to help?”

I said, “You sure can.”

I think the first check the sisters sent was $300,000, and then ultimately they provided a lot more funding, but we were able to complete that center and open it with funding from the Sisters of Charity of the Incarnate Word. Also the
Abbott Fund out of Chicago was our other big financial supporter of that.

We renovated it, we were able to equip it, we trained a cadre of Romanian nurses and doctors, and we opened that center in April of 2001. We were busy from the day we opened, and we never looked back.

JONES: Then you decided BIPAI’s in other countries, as well, correct? You are expanding to other countries?

KLINE: Yeah, that’s when BIPAI, I guess, became BIPAI, was when we opened that center in Romania. That was our first foray into providing treatment in a resource-poor setting. BIPAI, of course, is the Baylor International Pediatric AIDS Initiative, which is based at Texas Children’s Hospital.

The first four months we were open in Romania, we started 432 children on highly active antiretroviral therapy, and the death rate for HIV-infected children there plummeted from about 15 percent per year to less than 1 percent per year. Children literally were living instead of dying. It was a remarkable experience seeing so many deathly ill children restored to health simultaneously. We had been able to show that highly active antiretroviral therapy would work for children in resource-poor settings just the same way that it was working for American children.

It sounds a little ridiculous in 2019 even to debate that point, but at the time, there were a lot of experts who said these drugs will never work in a resource-poor setting. People will not be able to take them correctly. You’ll be breeding widespread viral resistance. The drugs are too toxic, so on and so forth. But we were able to show that they would work just as well.

Then the idea was just to replicate that. We had a model of care delivery.
We had shown how we could treat children successfully in Romania. We took the concept next to Botswana in southern Africa, and then to Lesotho and Swaziland, and Malawi, Uganda, Tanzania. With funding from the Bristol-Myers Squibb Foundation, from the Abbott Fund — two pharmaceutical company foundations that have supported us very generously over the years — the President’s Emergency Plan for AIDS Relief, PEPFAR, which was started by President Bush in 2003, and from a variety of other foundations, we were able to build a network of children’s centers in some of the hardest-hit countries in the world, and everywhere training local professionals, building capacity for pediatric healthcare that hadn’t existed previously, putting in place infrastructure that hadn’t existed previously, adapting the model of care delivery everywhere for the local reality.

If you fast-forward to 2019, we have about 350,000 children now who receive treatment in the BIPAI centers in Romania and in Africa, and we believe that we provide treatment to more children with HIV than any other organization or institution in the world.

JONES: And those results have sort of mirrored what you saw in Romania, in these other parts of the world?

KLINE: Yes, so the annual death rate for the children in care in our centers across our entire network is about 0.8 percent, so it’s less than 1 percent, which is comparable to the death rate for HIV-infected children in the United States and in Western Europe. I like to say this is the difference between living and dying. It’s not the difference between dying at 18 months of age or dying at five years of age. It’s the difference between dying at 18 months of age or living to be 80 years
of age. That’s what we’re talking about here. Effectively treated, an HIV-positive child can live to be a grandfather or a great-grandfather or a great-grandmother, can have a family of their own, can be a very productive citizen. That’s what we’re talking about, is the difference between dying at a very young age or living to be an old man or an old woman.

JONES: How do you feel, looking back at all you’ve done, but all other doctors have done, too, from the start of this sort of epidemic until now, looking at all your research and what it looks like today versus in 1985?

KLINE: Yeah, it could hardly be more different. At times, it feels a little bit like an out-of-body experience. I know I lived it, and I remember a lot of it very vividly. I remember a lot of faces and a lot of experiences very, very vividly. There are times when I have a hard time believing that I lived through all of that. In those early days, when I said to the moms that I was hopeful that effective therapy would come and I wanted their kids to be alive when it got here, I’m not sure I really believed it in my heart at the time. It seemed like it was a long way off, but it happened quickly. When I stop to think about how much we learned in such a short period of time, I can’t think of another deadly disease that mankind has ever face where so much was learned in such a short period of time and effective therapy was developed over such a short period of time.

JONES: Why do you think it happened so quickly?

KLINE: I think there were a lot of smart minds that went to work on it. This was a pandemic unlike almost any other that had been faced in modern times, and it was the first real pandemic that happened in an era in which molecular biology was understood and genetics was understood and when we really had the tools to
study it.

Of course, the Plague and cholera, and there are a lot of other diseases that have caused epidemics and pandemics over the course of millennia, but most of those things happened during periods of human history when the tools just weren’t there to really learn and understand what was going on and then to fight back. This happened at a time when we had the tools at our disposal.

I don’t think that it happened because governments made it happen. I can tell you that for sure. Governments did very little to help. Probably the best thing that any government ever did to help fight HIV/AIDS was PEPFAR, started by President George W. Bush. PEPFAR has been described as the most effective American foreign aid program in history. You’d be hard pressed to travel anywhere in sub-Saharan Africa and not see the benefits of PEPFAR. Millions of African lives were saved by PEPFAR. President George W. Bush threw a lifeline to the African continent and to millions of Africans when he pushed forward PEPFAR. That’s probably the best single thing any government did. But governments just as often obstructed program development.

JONES: Did you find that to be the case in Houston?

KLINE: Not so much in Houston, no. No, I can’t say so. I mean, if you look at the US federal government’s response in the early days, in the era of President Reagan, that most governments’ initial response to learning that they are dealing with HIV/AIDS is to bury their head in the sand. I think the attitude at a lot of places has sort of been, “Well, a lot of these people who are infected with HIV are not very desirable anyway. If we just ignore it long enough, the problem will take care of itself.” I mean, it’s really sad to say that, but I really think that’s been the
attitude.

Where children are concerned, I was told by an African minister of health, on one occasion, “We’re not too worried about the children. Why should we worry about the children? If the children die, the parents can make more children to replace the ones that die.” And children don’t vote and they don’t pay taxes, and so they haven’t always been top priority.

JONES: That’s a very terrible thing to say, an absolutely terrible thing to say. But you’re there, your people are there and were training different people around the world to sort of combat this.

What’s next for the future of BIPAI or even just HIV/AIDS in general, the treatment?

KLINE: BIPAI is changing to stay relevant. A lot of the kids that we’ve treated over the course, now, of almost 20 years have grown into adulthood. That’s a great thing, and so we’ve put in place adult services everywhere we work. We provide obstetric and gynecologic services, family planning services. We run the gamut on the services that we provide. Adolescent medicine services everywhere, of course.

I think maybe the silver lining of the AIDS pandemic is that if we’ve been able to show that we can provide treatment to children with HIV and AIDS in the poorest countries of the world, we no longer have an excuse to not treat any other life-threatening or serious disease. For too long, we’ve said we can’t really treat malaria, we can’t treat diarrheal disease, we can’t treat tuberculosis, we can’t treat a whole host of conditions that have robbed children of their health and lives in the poor countries of the world, a lot of them in sub-Saharan Africa. We’ve just
said it’s just too hard, the infrastructure doesn’t exist, the health-professional
capacity doesn’t exist. But we’ve put it in place for HIV/AIDS, and HIV/AIDS is
an order of magnitude more difficult to treat than a lot of these things.

Think about sickle cell disease. Sickle cell disease has been transformed
by simple, inexpensive therapies in the United States. Children used to die from
sickle cell disease in the United States. Now the vast majority of children born
with sickle cell disease in the United States live into adulthood and are doing very
well. But 85 or 90 percent of the children born in the world with sickle cell
disease live in sub-Saharan Africa, where treatment is largely unavailable, and the
natural history of sickle cell disease there is that most die before age five. Well,
what excuse do we have for not rolling out sickle cell disease therapy in Africa?

Think about acute lymphocytic leukemia. 85 percent or 90 percent of
children diagnosed with acute lymphocytic leukemia in the United States today —
it’s the most common form of childhood malignancy — 85 percent or 90 percent
will be cured. In Africa today, 90 percent of children diagnosed with acute
lymphocytic leukemia die. Again, if we can treat HIV and AIDS, we should be
able to treat acute lymphocytic leukemia.

I think that maybe the success that we’ve been able to show in treating
HIV and AIDS in Africa will crack the door to tackling some of these other
conditions that have killed too many children for too long. I’m hoping to use the
platforms that we’ve developed, the infrastructure, the health-professional
capacity, to tackle many of these other conditions.

JONES: What’s next for you?

KLINE: What’s next for me?
JONES: Yeah.

KLINE: I’ll keep doing what I’m doing, I guess, for the foreseeable future. Of course, I’m physician-in-chief of Texas Children’s Hospital now, and I’m really enjoying that. It allows me to do some things that I didn’t have the resources to do before and to invest in programs that I feel passionately about. I have as much energy as I ever have, and I’m as excited to keep doing what I do as I ever have been, and I think I’ll keep doing what I’m doing as long as I’m healthy and I can do it.

JONES: That sounds like a plan. Thank you again for sitting with us. We really appreciate it and appreciate you sharing your stories with us.

KLINE: Thank you.

[END OF AUDIO PART 3]

[INTERVIEW CONCLUDED]

* * * * *