

## **Bob Baldwin**

This is an interview with Bob Baldwin, on July 13, 2006, at the Centers for Disease Control and Prevention in Atlanta, Georgia, about his role in the project to eradicate smallpox in West Africa in the 1960s. The interviewer is Melissa McSwegin Diallo.

**Baldwin:** Thank you. My name is Bob Baldwin, and I know that I am being taped during this interview.

**Diallo:** Okay, fantastic. All right, well, let's go ahead and get started.

**Baldwin:** Okay.

**Diallo:** To start out with, can you talk a little bit about how your upbringing and education led you into the field of public health?

**Baldwin:** That's a very interesting question, because I guess I was fortunate enough to stumble on a career in public health. It wasn't anything that I aspired to from early childhood. I grew up in an inner city in the Northeast, in New Jersey, and amidst poverty, and went to the university. And when I had an opportunity to be interviewed by a number of companies, as I was about to graduate from the university, the one from CDC was the most attractive, and that meant working in sexually transmitted disease in New York City, where I met a number of people who you will meet in the next couple of days, who were working there also. So that's how I got in to that, and then once I started in New York City, I became aware of this opportunity in the smallpox eradication program. And I was fortunate enough to be selected for this, because there were a lot of people who competed for this, these positions. And I was in the about second or the third phase of this effort, and I was fortunate enough to be selected, and that really made the difference that shaped my whole career in public health. I just retired about 2 years ago from CDC, and I had the good fortune of spending at... More than two-thirds of my career working in public health, and I attribute that back to those early days in the smallpox eradication program.

**Diallo:** And what was your degree in? Was it...

**Baldwin:** Now that's a funny question, because people say what, with all the experience that you've had over these 40 years in so many different parts of the world, and so many different disciplines, what did you major in? I said, well, I was an English Literature major at Rutgers University. And it always really just baffles people, it throws them. They say, well, how can you... How can you have done this? And today you probably couldn't. You couldn't, no. You do have to have a master's degree to get in around here in public health, and to do the things that we did, but we were fortunate in our generation to be able to get in at the ground level and learn by doing, and applying, and making the stakes, and that sort of thing.

**Diallo:** Could you name one, if you can, one influential person in your life that, maybe how they inspired your early career?

**Baldwin:** (unint.) Bill Foege [William H. Foege], who you haven't met, you will. And he's an imposing guy, a tall guy. Very visionary. And just being around Bill is, in a sense, inspirational. And when I was in the smallpox eradication program, Bill was then the director of the program, and he'd come out from time to time and spend, you know, visit with us in Cameroon and all that. And he later became the director of CDC. But Bill's been sort of a hero, a role model to... So he was very influential, I think.

**Diallo:** So how do you think... You said that you started out with CDC in sexually transmitted disease. How did the smallpox eradication campaign interest you? What motivated you to join it?

**Baldwin:** Well, ever since I was a kid, I always had this desire to go to Africa. You know, I had probably read too many Tarzan novels and saw too many Tarzan movies, and I've always wanted to go to Africa. It was the mysterious, dark continent. And so, when this opportunity came along, I said, this is an opportunity of a lifetime. I would never forgive myself if I don't try, at least try, to get accepted for this program. And also, the lure of participating, even in the small way that I did, in an accomplishment like this. The eradication of a disease from the world. I mean, this is, I believe, a major accomplishment in

the history of mankind, and certainly in the history of medicine. And I said, if I could be part of that, I would really be... I would be really happy. Really happy. And I was overwhelmed when I was chosen. And so I went to Africa, and that was a definite eye-opener, because when I arrived in Africa, there are so many things about Africa that you remember. The smells, which are entirely different from any other place on earth. The heat, when I stepped out of the airplane in Lagos at 8 or 9 o'clock at night, and set foot on African soil. It was like you were walking into Saran wrap. You were enveloped by the humidity and the heat, and you felt like you couldn't breathe. There was fog on the windows in the airplane, and all that. And then I met the African people, who were nowhere like... Nowhere near the people in the Tarzan novels, and all that sort of thing. I mean, they were friendly, they were open, they were outgoing, they were creative, resourceful, and survivors, and I thought I'd known poverty, living in New Jersey and working in New York City. I started in Harlem and worked in Spanish Harlem in the Bronx. Well, when I got to Africa, I really saw poverty for the first time. And I saw people making do with very, very little. But doing it in a nice way, and not in a resentful way. It was just a great experience, and it... As I said, it influenced me to continue on in public health, because it broadened my perspective, my appreciation for different cultures, and for different perspectives, and it shaped me. I mean, I'll always be grateful for having had that opportunity to play a small part in this disease, and it inspired me to continue on. And so when I left here two years ago, I was Associate Director in the Office of Global Health, and I had responsibility for very wide geographic areas of the world, like the former Soviet Union, China, Eastern Europe, and that sort of thing.

**Diallo:** Okay. Actually, you've already answered some of my next questions. All right, so can you tell me about... You said you were assigned to the (unint.). Actually...

**Baldwin:** Yeah. I flew into Lagos, but I was on my way to Cameroon, because my assignment... Well, my initial assignment was supposed to be the Central African Republic, but the ambassador there said, this program is drawing to an end soon. I don't want to have another American coming in. Is there some way that we could avoid that? And so the program got very resourceful,

and they said, well, let's assign Bob Baldwin to a regional position. They didn't have any regional positions other than... We had a regional office in Lagos, but we didn't have any regional operations officers, so they decided to assign me to a French military organization called OCEAC, which in English stood for The Organization for the Great Battle... The Battle Against the Great Diseases in Central Africa. And this was located in Yaounde, Cameroon. So they said to me, well, we're not going to be able to put you into CAR, the Central African Republic, we're going to send you to OCEAC. And from there you will be responsible for Cameroon, for Congo, the Central African Republic, Chad, and Gabon, what was formerly French Equatorial Africa. And so we had in the past, either we had operations officers there. Russ Charter [Russell Charter] at one point was in Chad, and then he left and went on to Guinea. So they started pulling those operations officers out of there, and put me into Yaounde, and they said, and you're in... And this was in a consolidation phase, when surveillance for the disease was intensified. And any time there was a suspect case of smallpox, we jumped on it like fleas on a dog, and we got to it as fast as we could, investigated it, and tried to determine whether it was smallpox or chicken pox, which was an imitator of smallpox. And so that's how I got into Central Africa. And working... Speaking French, as it did, and I had studied it in the university and in high school, I had an opportunity then to exercise it there, because I was working with a French general, who was the Director General of OCEAC, and he was a physician, but he also became a general, because the French military ran French assistance and health in French-speaking Africa, as opposed to the British system, which was totally different. So I was working there, and the other thing that I remember, in addition to being a regional person, was the fact that throughout our days in smallpox eradication, we were funded by the United States Agency for International Development. And it was always this pull and tug, this relationship that was very cantankerous, it was combative between the two agencies. And people in Washington resented the fact that we were the technical agency, that we, in a way, were getting more credit than they were, even though they were funding the whole activity. So there was always this push and pull, and this battle between AID and CDC. So when I got to Cameroon, I was thrown right into that. And I ended up having four bosses. I had the Aid Mission Director, who was really a good guy, but a

stickler for detail, and questioned everything that we did. I was working for the General at OCEAC. I was also accredited, though, to the Ministry of Health in Cameroon, so I had to answer to the Cameroonian government, too, and then to CDC. So I had four bosses, and I had to balance this constantly to try and keep them all happy, and at the same time, try to get the job done. To make sure that there were no cases of smallpox left in Central Africa, in French-speaking Africa. So that was a task that required a great deal of skill, and I don't know where I got that skill from. But I do remember that in my training session here in Atlanta before we left, our... George Lythcott, who is now dead, but who was another important person in the early smallpox days, told the group, when I was there, that we had to be medical diplomats. I remember that. He said, you not only have to know about all these diseases, and about smallpox and measles, and how to fix gun ped-o-jets, and how to repair cars, and clean carburetors, he said, but you have to be a diplomat, too. And so you had to deal with a wide range of people, from the Minister of Health to the Director General of OCEAC, to visiting dignitaries and all. And that was one thing that people back here never really understood. When I came back, and I was assigned to Atlanta, and I sat on a number of promotion panels and reassignment panels for jobs, and I would try to explain to the people who sat on the panel, who had never been outside the country, never worked in Africa, never knew the difficulties of working with, you know, the Minister of Health at one point during the day, and then working with an immunization team later on in the day. And they didn't understand the difficulties and the range of skills that you needed to do that. So they would tend to bypass people for promotion who had been overseas, and say, well we don't know what he did for that 3 or 4 years. We don't understand, we don't know. We don't understand... So that was... I became an, almost an ombudsman for some of our former smallpox people, or people who worked overseas, kind of a spokesman to interpret for those back here who didn't understand and didn't care to understand what they'd done.

**Diallo:** Because you talked a little bit about the training that you had before you left. Could you talk more about that?

**Baldwin:** That was pretty intensive. That was... It involved the epidemiology of smallpox and of measles, and of other diseases

that we might likely encounter. It also involved learning how to clean carburetors and fix... Do major car repair work, is minor ones, and also to repair the ped-o-jets, the jet injector guns that we were doing. And in addition to that, since I was going to a French-speaking country, I would spend my evenings over at the Berlitz school, polishing my French. Despite the fact that I'd had four years in high school, it was, you know, academic French, it wasn't conversational. So I had to do all that during the day, and then in the evening, go over every evening about 5:00 till 9:00 to Berlitz, and do this total immersion stuff. Which was good, because in the long run it really paid off. But with all that training that I got, being in the smallpox program was a humbling experience for me, because I found out what I really didn't know. There was so much I didn't know. And when you went to a place like Cameroon, or anywhere in Africa in those days, in the 70s, in the late 60s, you represented CDC. So the ambassador would look to you for any medical questions that he had, and so would the others, the French doctors. For something they didn't understand, they'd come to you. And for them, you were the expert. So in addition to knowing how to repair cars and ped-o-jets, you had to know about a whole slew of diseases. And what made that difficult is that we weren't, we didn't... We're not doctors. We weren't doctors. We were operations officers, and we didn't go through all that. So the other thing that complicated it was that, in those days, there was no email, it was difficult to make telephone calls. The way we communicated, when you needed, really, really needed something, whether it was a car part, or whether it was knowledge about a certain disease or condition, or how to intervene in a situation, you had to send cables. That's how we existed. We communicated by sending cables. And they had to be very precise, and very pithy and to the point, so what you had to do was to... When you had a difficult problem or situation, you had to size that up, and be able to be very focused as to what you thought you needed to know, and to put that in the cable in this very terse language, and hope someone in Atlanta understood just what it is that you wanted to know, what you needed. So that, you know, was the age... It was well before the age of emails. Today it would be so much different. I could just sit down at my computer and send an email off, and... As I've done here, in my work with the former Soviet Union. I'm talking with a colleague in USAID, and I say, let me send you this, and while we're talking, the message gets

(unint.). That's right on this computer. Didn't exist then. It didn't happen. We had to... And phone calls, you know, you never... There weren't satellite phones in those days, it was just the early days. And once you got out in the bush, it was even worse. You were totally on your own. So you had to be very resourceful, and, as I say, it was an unbelievable experience, because, you know... I could write volumes about the things I did and that I learned. And to do it in the... And the other thing that complicated it, too, was that you were doing it in a foreign language. It wasn't just English.

**Diallo:** Right. How did you find, since you were working with francophone countries, and the former French colonies, how did you find that that colonial legacy affected your work in smallpox?

**Baldwin:** Oh, it's funny you raised that question, because I thought about that too. There were two different systems. The French system was, I felt, very humane. The French system was what they'd call *prospeccione* (ph.), or... Every year, they would go out in teams, in mobile teams, and visit a third of the country. They would visit village by village, and they would immunize, treat every disease they saw, and so at the end of three years they'd have covered the entire country. Now, that was very humane. The British system was one where they made fixed posts, or hospitals, or clinics, outpatient clinics, and that sort of thing, and if you could get to them, fine. If you couldn't, well, too bad. So those are the two different systems. But the French system tended to be sort of patronizing, in a way. And my relationship with the French, and everybody's relationship with the French, and I can say this and hopefully it won't be published widely, is one of a love and hate relationship. And I worked with these guys on a daily basis, and even the doctors who were in the Ministries of Health were French military assignees in those days, because the Ministries hadn't been totally Africanized. So you're dealing with French doctors who were military also. And so we had this hate, love-hate relationship. Some days you just thought they were the greatest people in the world, and other days you'd say, oh, these guys are so arrogant, they don't understand, what is it they aren't understanding about this? We'd have these debates about how valid the smallpox vaccination was. They would say it was good for lifetime, we would say it was good for 7 years, or, you

know, we'd have these kinds of debates. But they also... The difference too was when I had the opportunity to go out into the bush with some French teams from OCEAC once or twice. And when these guys went out into the bush, they would have tents, they'd have tables, they'd have tablecloths, they'd have wine, they'd have all these dishes and napkins and all that, and it was like, you know, we're going on a picnic, and we're going to go first-class. And when we went out in the bush, you know, myself, and I had two different... Through my stay in Cameroon, I had two different epidemiologists. But when we went out in the bush, we had cans of what they call koskuit #(ph.), you know, cassioulet (ph.), which was like baked beans and frankfurters. And we'd eat out of these cans, or, if we were fortunate enough to get them heated up, we'd eat, and then we'd drink warm beer, and... Instead of French wine. And we'd sleep on cots that fortunately had mosquito netting, but we'd sleep out under the stars, and... Which was fun. And I had a beard at the time, which was very useful, because if you ever had to shave, you never shaved. But if you've ever had to shave with cold water, you know how uncomfortable that is.

**Diallo:** I've bathed in cold water.

**Baldwin:** Yeah, bathing in cold water. Bathing was another thing. We... Sometimes we'd go for a few days without bathing, and wearing the same clothes, and that was an interesting experience, too. But we went out into the bush, and that's what we called it, going into the bush, and when you remember... You always remember the first experience riding through what they call washboard roads in Africa. They were dirt, they were laterite red clay, and they were up and down, up and down, like a washboard, if you've ever seen an old washboard. You'd just go on for miles like this, sometimes holding the windshield with your hand, because if there was a car in front of you and it's kicking up rocks, it could shatter your windshield. And so you remember that, and you remember getting... Having to go into villages to immunize, and you couldn't drive in. You had to leave your truck, and you had the truck, and you had to carry your equipment, your ped-o-jets, your vaccines in the cold chest, into the village and walk for miles, 3-4 miles to get in to the village. And sometimes you'd have to take a boat, a dugout canoe, to get there. And meanwhile, as you're trudging through the bush, you're... In Cameroon we had green mambas,

which are poisonous snakes that come out of trees. They don't live on the ground, they live up in trees, and so you always have to worry about whether, you know, looking up to make sure you weren't getting a green mamba coming out at you. But those are the memories that I had, and those are just... You just can't take those away. Those are fond memories, and the people... The other thing was the concept of crowd control. I think they didn't tell us enough about that here before we left. I do remember being out there and immunizing kids with a ped-o-jet in each hand, smallpox in this gun and measles vaccine in this gun, and I'm pushing down on the foot pedal for this gun, to charge it and give the kid an immunization, and the other one with the other hand. And they're crowding around, and crowding to the point where you couldn't work. The Africans were so afraid that you were going to run out of vaccine, that their children weren't going to get immunized, that they would just... And so I had to, a number of times I had to stop and just say to the headman or to the chief, you've got to get the people lined up, in a line. I can't work here. I mean, if I can't work, I can't immunize them. So that concept of crowd control. And the other kind of memories that I remember, you know, when you're going into the village, before you go in to immunize, well, we had to do a survey, to do a vaccination survey. You'd have to sit and palaver or talk with the headman or chief, and he'd get all the village elders, and you'd sit around on these stumps, these chairs, and they'd take this big jug of palm wine, which is... They'd go up a tree for, and they'd drink this palm wine, and then pass it around. In those days, we didn't think about, you know, whether you could get a disease like HIV from mucous or things, you know, and so we ate, we drank our palm wine, and it would be very disrespectful to say no, and to refuse it. And then if you came across a more educated person in the village, I remember very distinctly one Saturday morning going and trying to do an immunization survey in a small village, in the Central African Republic, and the educated person in the village was a schoolteacher. And he had... And I had a guy from Atlanta with me at the time, my supervisor, and he and the schoolteacher wanted us to sit down and have a drink with him before we began our work, and so he pulls out this bottle of scotch. And it was a very nice bottle of scotch, and I'm sure it cost him a lot of money, and we had to drink scotch with him at about 9:00 in the morning, warm scotch, and if you have more than 2 of those, it kind of sets your day off. So those are... Those were fun

times, though.

**Diallo:** How did you... What kind of challenges did you face in working with your African counterparts, coming in as an outsider?

**Baldwin:** Well, fortunately, see, my counterpart was designated as my driver. His name was Simon-Pierre Ndenge (ph.), and he was not a driver. And I never did treat him as a driver, or use him as a chauffeur. Only when we went out into the bush. When we went out in the countryside, it was recommended to us, in fact, it was told, don't drive. Because there had been instances where people had, and I just heard of one of these, just the other day. Where people had hit children with a car and gotten stoned to death, in kind of a retribution thing. So we always let the designated driver or chauffeur drive when we went out. But Simon was not a driver. I treated him as if he was my counterpart. I tried to mentor him in the ways of planning and organization, and management, and that sort of thing. And in return, he mentored me in, you know, adapting to the culture... He could speak 5 different dialects, plus French and English. A little bit of English; most of the time we spoke in French, though. But he taught me about the customs of the various tribal groups, because there were over 200 tribal groups in Cameroon alone. And so, Simon-Pierre, he would just, you know, he was my guardian angel, in a way. And the frustration in there... We never had any problems, personal problems with each other. We always understood each other, he was always there when I needed him, and I hoped I was there for him. Excuse me. But my biggest disappointment was that when I left, I was not able... I had tried, for almost a year to get him a position in administrative health. Because when I left, the work still needed to continue. We were told that we were coming home because we'd done the job with smallpox, but measles... We were on the cusp of eradicating measles in some places in Africa, for instance, the Gambia and others. But when... Before I left, I tried to get him into administrative health, in a full-time position. And eventually I did succeed, but it had a much lower pay than what we were paying him. See, we were using (the ID forms?), and so we were paying people more than the local economy would bear, so for a man of his skills, he could have made much more money in working for a pharmaceutical company. He could have made a lot more money, but he wanted... He was there

to cater to that, too, and he actually did get a job with the Ministry of Health for less money, than... Now, as I continued on working in Africa well after this into the 80s, in a large program called CCCD, or Combating Childhood Communicable Diseases, we had other talented people like Simon who weren't able to get picked up, and they ended up going off to WHO, or to UNICEF, or to the Institute Pasteur, or a drug company. And they wouldn't necessarily be there to help the country itself. You know, their country, it'd be assigned here or there. So you'd still be in the health field, but it wouldn't benefit, say, Cameroon, or Chad, or Central African Republic. So that was really a disappointment, there. I never had any great difficulties in dealing with the Africans that were my counterparts.

**Diallo:** That's good. Did you have, or could you talk about adjusting to living in Africa?

**Baldwin:** Oh, yeah. Okay, I didn't write that down in any of my notes, but that's a good point. That, you know...

**Diallo:** You had never traveled there before, had you?

**Baldwin:** No, I hadn't. But since then, you know, since that experience, I've been to 48 different countries in Africa. But getting to Africa, as I say, was an eye-opener for me, because it just wiped out all the stereotypes that I had. But they kept telling us here, you're in for a culture shock, don't be surprised at this or that happening, and I didn't have any problem. Not at all. I did not adjust. I had my culture shock when I came back to the United States. And I think a number of my colleagues did, too. We just sort of accepted what was there, and we didn't get excited about it. It's Africa, and there was an expression that we had in French. "C'est l'Afrique." That's it. "C'est comme ça." It's like that. Or when something went wrong, we had another expression you might hear called "WAWA". And that stood for West Africa Wins Again. Because there were things beyond your control. If you expected your vaccine to arrive at a certain time on this plane, and that plane had to come from the United States and make 3 or 4 different stops, 2 or 3 in Africa, and you expected it to arrive at this time, because you were told, you had got a cable that said, your vaccine will arrive on Air Afrique, flight number 421, arriving

at... And so you went to the airport, or Simon went to the airport, or I went to the airport to get it, and it wouldn't come. But then we had to trace it. Where was it? You had to go down the line and find out, send cables, find out where this vaccine was, because it was such a fragile thing, and you couldn't allow to be sitting on a hot runway somewhere, because somebody just offloaded it and didn't put it back on a plane. Or parts. So when that kind of stuff happened, and it was 2 or 3 days before we finally located where it was, or it never arrived, the old expression was, WAWA. West Africa Wins Again. Those were some of the frustrations, because, as I say, this was 1970, the late 60s, and each... During that time, it was a period of emerging nationalism, emergent nationalism, and each country felt like it had to have its own airlines, too. No matter how good or bad they were, or how substandard, they had to have their own, and the country's name had to be on the airlines. So that was an important thing. The other thing we did encounter, though, from time to time, was some suspicion, because there are... There was a faction of people who felt that if you were associated with USAID, and at the time AID was pushing contraceptive devices and birth control, that perhaps you were part of a plot to keep the African population down. So we... At times we encountered that, but I think most of the time people knew we were good folks and we were doing good things. Trying to do good things.

**Diallo:** And were... Did you find that people in the villages were generally accepting of the vaccines?

**Baldwin:** Oh, yeah. They were very accepting and very generous, and that was almost very embarrassing, because they would try to give you things, what little things they had, whether they were food, or chickens, or bananas, or whatever, to take with you when you left as some token of their gratitude. You knew they had so very little, and you know that you could get this stuff back in the capitol city when you got back. And so, well, we couldn't refuse it, though. We would take it and we would express our gratitude for the meals they provided for us if they did, or for whatever they gave us, and then usually I ended up giving to Simon. Now Simon had the fortune, I guess the good fortune of having 4 sets of twins in his family, so he could use this stuff. Or if he couldn't, we'd give it to a few other people on the vaccination team, that sort of thing. Once we were out of

range of the village. Because people were just so generous, and you remember that. You really do, because they had so very little. But they gave freely. Because they were just so grateful you came.

**Diallo:** Did your family travel over there with you, to Cameroon?

**Baldwin:** They did, I had my wife and a stepson. But they didn't get out into the bush too much, because we went to some... You know, we did vacation kinds of things, but never out in the bush. It was...

**Diallo:** How did they adapt to life in Africa? Because they were, I imagine, living still in the city, but if they were...

**Baldwin:** Yeah. Well, it was a difficult adjustment for my wife, because she came from the New York area, and so, I mean, Africa, New York, two different... It's like two different worlds. And she had some difficulty. She also had some difficulty even adjusting to the French language. And so she felt at a disadvantage. She eventually acclimated and was able, say, on Monday morning to go down to the market where they slaughtered the beef that had been driven down from Chad, and be able to pick out... Among the blood, the meat that we wanted to have. And then having to filter water, and that sort of thing. And the other adjustment that we had to make was that it was normal, pretty much normal, for people to have household staff to... It was a form of employment, you know, you would employ household staff and a cook, and we started off... And a night guard. And we started off with a cook, who, fortunately or unfortunately, was... Had been a cook for the Vice President of the country of Cameroon. And he insisted on making these big meals at noontime. And I just could not get used to that. And he was a nice guy, and he really was, and so we were able to get him placed with some other family, preferably a French family who would like those big meals. I couldn't... The thing I never could get used to, when I was in the city, was these, the hours. We worked from 8 in the morning until 12, and then we went home, and from 12 to 2:30, you're supposed to eat and have a siesta. Well, I could never lay down after I ate and just fall asleep, and do that. So I never could do that. And then, when I started eating these big meals, I said we can't have it. So we actually placed him, got him placed at some other family, but

we did go on with the house person. And that was an adjustment for my wife to make, too, having a house person around. The guardian, though, was absolutely essential, because you... There was thievery. And people would... I mean, it stands to reason that people would, are living in abject poverty, and they look in through the fence and see what this very nice house, and you have guests coming in, and food, you know. So you... That was pretty normal.

**Diallo:** And in general, when you think back on the smallpox project, how did participating in that particular program change your life?

**Baldwin:** Well, I think it really did change my whole outlook on life, and it really wanted... Made me want to continue to work internationally. I know there are many, many problems here in the United States, and when I did come back, I did work for a while here in sexually transmitted diseases again, in Pennsylvania, but I just... I was just itching to get back into international health. And back in 1980, I came back into international health, and worked at the project that we called "sheds", it's SHDS, with Boston University and AID unit transitioned over into the Combating Childhood Communicable Diseases, the CCCD project. And then I started, because it was the period of famine in Africa, and extreme famine in the 80s began, so I got into coordinating CDC's international disaster and refugee work. And I did that for 10 years, the international stuff. Some of it I was still doing the CCCD stuff, too, and supervising people in Africa. So that got to be too much, so I did (unint.) into emergencies and disasters totally. And from there I just transitioned into the former Soviet Union, because by that time, in 1991, the Soviet Union had collapsed, and we had a terrible problem, in the 15 republics of the former Soviet Union. So I got involved in coordinating the CDC's activities in that. I was probably... I was in the first wave of a few of us who went over right after the collapse of the Soviet Union. But what it did was it just taught me that there was a bigger world outside the United States, and there are... I have very competent colleagues here, who could handle the domestic side of things, but I felt that my skills were better applied internationally. That I could do the diplomacy thing, I could still help to make life better for some of those people who have much, much less, by just showing them

how to do things, and that was it. It was trying to just show people, and transfer technologies. Not to do it for them. The one thing we got accused of doing in the smallpox eradication program by our colleagues in AID was, well, you guys did a great job. You eradicated smallpox, but you didn't leave anything behind. You didn't leave any institutional memory behind. But that's not entirely true, because, as I said, I've tried to get Simon-Pierre hired, and others in other countries tried to do the same thing. So we did train people and try to leave an institution behind, but the overall effect as far as AID was concerned was, we accomplished the mission, but we didn't. We didn't build infrastructure. So as we got to the point of the SHDS project, and the CCCD project, and everything else since then, the objective has been to teach them how to fish. You know, to teach them how to do it. And teach them what has worked. And that has always worked for me, I mean, successfully in my dealings with people in the former Soviet Union, who are always very distrustful of Americans, they thought we were all CIA. But... And some of them just couldn't believe the approach I took was, I'm here, I'm going to show it to you, what we've done in the United States, what we've done in other parts of the world, and it's worked, and then also, here are some things we did in the United States and other parts of the world that didn't work. Now, it's up to you to take these things, if you want, and tailor them to your own environment, and see if they'll work for you. And find a way. Let's modify and find a way, see if they'll work for you. Well, that was baffling for people in Russia and former republics. They said, why are you doing that? People would come up to me, I would be chairing a large meeting, and a man comes over and he said, you need to be beating your own drum. You need to be telling people they have to do it this way. And I said, yeah, but you see, they're used to it. For 74 years they were told they had to do things this way, there was no other way to do it, and so they were so surprised at that. And they were also surprised at us talking about our failures, because if you did that in the former Soviet Union, if you even revealed that you'd had a failure or a # (unint.) he'd send you off to a gulag. You'd go to Siberia, or you'd get demoted, or your pay would be taken away. But anyway, you asked me that question, it's helped... It shaped my whole career, it's influenced the way I look at things in the world, and it made me a more tolerant person, a person who's much more culturally sensitive, I think, than I would have been if I'd

just stayed in New York City, or New Jersey, for that matter.

**Diallo:** So what would you say... You've talked a little bit about some of the difficulties that you faced. What would you say was the biggest problem that you faced, and how did you work to solve it?

**Baldwin:** Well, I think it was the lack of good communications in those days. I mean, back and forth to where you needed, either to alert people that you were coming to a certain village on a certain day to immunize, or it was communicating to Lagos, to the site we needed certain ped-o-jet parts, because, you know, 10 of our guns are down, and we really need these for the next campaign, and the rainy season is coming, and we need them tout suite, you know, right away. Or communicating back to Atlanta. For instance, when we had cholera. When cholera broke out in Cameroon, and I knew nothing about cholera. That was one of the diseases they didn't tell me much about. And we had a pandemic of cholera, and so I had to try to get as much information, for myself and for the epidemiologist, fortunately I had an epidemiologist working with me, who was, you know, so that we could deal with this, because the American ambassador was asking us how we'd deal with it. Because the ambassador wouldn't hesitate to call you at 2:00 in the morning, 3:00 in the morning, if something urgent came in. And you were the CDC person. You've got to know the answers. You have to know the answers. And so, you know, it was communications. It was trying to get that information you needed. Either from people or out to people. And I think that was the biggest challenge. And then, of course, the political infighting was also very challenging, between AID and CDC. And, of course, you know, the push-and-pull of the French, too, they had their own way, they looked at medicine much differently than we did. So there were all kinds of challenges. It was... As I say, there was never a day without challenges. And fortunately I did have, during the time I was there I had 2 different epidemiologists who worked with us. And they, themselves, presented difficulties, at least one of the two, in getting along with the French, because the style was, like, totally different. This guy was very good, but he was very informal, and he just didn't, you know, fit in to the French system, you know, where they're very formal, and all. I had said... So I had to sort of be a buffer between him and the French, too, I had to get in the middle from time to time.

You became very resourceful, you tried to become very resourceful, and very inventive, as much as your abilities let you be. But we... As I say, we weren't physicians. We were, you know.

**Diallo:** Right, right. Was there a particular point... Well, first of all, what years exactly were you...?

**Baldwin:** I was there between '70, the beginning of '70 and the end of '72.

**Diallo:** Okay. And was there a particular point during your work with smallpox where you knew that it was a successful program, and that smallpox was going to be eradicated?

**Baldwin:** Yeah. I think it was when I left the country, and we didn't have many cases of smallpox, which, in a way, it's difficult to say this because it's a disappointment for me in many respects, I never did actually see a case of smallpox, because by the time I got there, we were in the consolidation phase. The hard work had been done by those who went before me. What my job was to be, it was to maintain and keep everyone vigilant, looking for smallpox, and... Because it could occur any time, and in any place. And so I'm not only in one country, as most of the people have, I had 5 countries to worry about. And I had to stay in communication, again, this communication issue, with each of these countries to make sure they were immunizing on a regular basis, on a monthly basis I would get vaccination figures done, and I needed to know that those teams were out there daily. They were not only immunizing against smallpox and measles, but they were looking for cases of measles occurring, and that they would alert us as soon as some suspicious case, you know, came about. And so we would jump on those things, and with a high degree of anxiety we'd drop everything and just run out to wherever it was, where that was said to be a suspect case of smallpox. But fortunately, we didn't see any. And so when I left, I was pretty much assured that things were going well, but you couldn't be totally certain that smallpox wouldn't just rear its ugly head in some small village that was missed, or among some person who, when the vaccination team were in the village, he wasn't there that day, or he was out in the field, you know, working, so you just never knew for sure, and we didn't know for sure until 1977 and that last case occurred, and then when they

certified it years after. There no certainty, you know. I mean, we felt we had done a good job, but we couldn't go home and say, we eradicated smallpox. You couldn't do that, we never did. You could never say that.

**Diallo:** So thinking back now, you know, with the blessings of hindsight, is there anything that you would have done if you had been running the program? Is there anything that you would have changed, if you were Bill Foege, for example?

**Baldwin:** If I was Bill Foege, would I have changed anything? I don't know, you know, Bill did his utmost, and he had the support of David Sencer, and Dave, as our director at CDC, really went above and beyond the call to try to support us all in the field. Because he realized the magnitude of the effort, and he knew... He knew better than any of us, I think, what the eradication of smallpox would mean to the world. So he was as supportive as he could, within the boundaries of the the rules(unint.), the administrative limits. I mean, there were things that we could have used, two-way radios maybe, walkie-talkies, communications kinds of things, or others that we were bound by regulations that we couldn't purchase, or buy. It was the same way with the vehicles. We had these great Dodge trucks, they called the Great White Whales, that had 2 gas tanks, and they were big, but they were American cars. So we were constantly needing to have American spare parts. And we weren't allowed to buy, say, French cars, which would have an abundance of spare parts... Or, French trucks, that sort of thing, which would always be available. And so we had limitations there. And Dave did everything he could, and so did Bill, I think, to push down the restrictions#(unint.), but I couldn't... Not being back here in Atlanta, I couldn't tell you if there were any things they missed or not. But I think they did a great job, and...

**Diallo:** With what they had available.

**Baldwin:** Yeah. With what they had available, and they pushed as far as they could, and tried to make the system as flexible as they could make it. But laws are laws, you know, and the government has regulations. But years later, I mean, in our work in Africa, we still tried to get waivers from this Buy America act, because it just made good sense to be able to not have a car... You know, when a car went down, when a truck went down, and you

couldn't get the parts for it, you had to go out and eventually cannibalize others, you know? And so eventually, you'd go, you'll see pictures here of trucks that are either wrecked, or they're sitting in a garage, or in a field, in a yard, and they're all down, you know. People are taking parts off of them to make the other cars work. That's cannibalization, not in the sense that you'd think of it, the cannibalization in keeping things moving. So that was a challenge, too.

**Diallo:** Okay, I have one final question, and then you can add anything else that you would like, but what were some of the important lessons that you learned from the smallpox eradication program, that you were able to then apply to your other work in international health? And you've talked a little bit about some of that, but...

**Baldwin:** Yeah, I think I have... I mean, the ability, I think... To develop the ability to actually hone in and focus in on what the real problem might be, or is what it appears to be, and what the alternatives, or the alternative solutions might be, and then trying to find a way to make those solutions happen, because sometimes the solutions are there, but, as I say, your system doesn't allow you to do that, or to... And so I think that's one of the biggest skills that I had to learn how to do. And the other thing was just to learn to be diplomatic and understanding of different people's culture, and their perspectives in looking at things. And they don't always see that the way we do, and they don't have necessarily the same work ethic. Now, I don't know, that's neither good nor bad, but in later years, as I was on a (yaws?) assessment for six weeks in 1980, I think, in the Ivory Coast, and it really hit me because I had a young EIS officer with me, and he was taking... It was his first trip to Africa, and we were working really hard. We had six weeks to do an entire assessment for the entire country, and we were working 10, 12 hour days. And, you know, finally the driver we had said, I refuse to work. He said, we don't do that here. You guys are Americans, maybe you do that. But we don't operate that way. And, you know, that just really hit me, because they don't. And you have to respect the way they do things there. But at the same time, you still don't lose sight of your goal, and you still try to accomplish your goal. So that is a challenge for you, to find your way, to incorporate, within their... Within the parameters of their own system, of their own

culture, how you can accomplish what it is that you need to accomplish without offending them, and still get it done within the time frame. Sometimes it's possible, sometimes it's not. Sometimes it's gonna take a little longer to do. So that...

**Diallo:** Well, that's great.

**Baldwin:** That was a skill we had to learn.

**Diallo:** Right. Well, if you have anything else that you'd like to add, I don't know if you want to look through your notes and see if there's anything particularly...

**Baldwin:** Not too much, no. I mean that patience, developing that patience. Because I remember later, in '82, '83, when I was in the CCCD program, and I was hiring people to go out, to work in Africa. And I went and interviewed a number of people, and I settled on this one guy, who had been in 90-day experiments in smallpox. And I'd known this guy throughout the years, and I thought, well, he'll be perfect. He'll be perfect for this job. So, sent him to Africa, to West Africa, to the Gambia, small country. He had difficulties adjusting from day one, because things just didn't happen the way he thought they should happen. Even to the point where we met, and (unint.) before we went down, and we had dinner, and he ordered white meat and got dark meat, you know, and I said relax, relax. Because you know, you're going to get a heart attack, you're going to get an ulcer, if you don't just sort of, you know, be a bit more accepting and a bit more patient. And if they say your car will be ready tomorrow and it isn't ready, and it's going to be 3 days before it's ready, you know, you don't... You can still keep bugging them, but don't let it bug you. So it's... Even when the guy had worked overseas, he just hadn't had the patience, because it's different. You know, a different ball game. Well. Let me see. Is there anything else? I mean, the language skill was also a challenge, too.

**Diallo:** Did you learn any local languages?

**Baldwin:** Oh yeah, I did. I learned French like you wouldn't believe, and many French customs, too, and French-African customs. But, you know, all in all, I just... I just thought... I wouldn't do it any differently if I could, you know, if I had an

opportunity. But this kind of always reminds me of this Robert Frost poem, you know, "Two roads". Have you ever heard that one? "Two roads diverged in a wood, and I/ I took the one less traveled by." And that's made all the difference for me, and it's been great, it's been a great experience. It's the... When I look back on my professional career, I think it's the most important thing that I've ever done professionally, in the smallpox eradication program, and I'm the proudest of it, even though it was a relatively minor role that I played. Well, we all played our roles, we all did our share, and some more than others, but, you know, it was great. And you know, I used to sometimes, in the former Soviet Union, as an example of how countries can work together. Because this whole issue of the smallpox eradication program, and the eradication of smallpox from the world was first brought up by the Russians, in early... During the Johnson administration, when Johnson was President. And Brezhnev was the Premier in Russia, and he had this idea surface at WHO several times, that perhaps the United States and Russia could do this worldwide effort, this global effort to eradicate smallpox from the world. First couple of times they threw that on the table, they didn't bite, you know? But a little later on, the Americans decided, okay, let's do this. And so, as a result of this, you had the two major superpowers of the world, I mean, these were the two big gorillas in the world, working together, and they got other people to work together, because other people saw them working together, to eradicate a disease from mankind, and this just hadn't been done before. So when I go into Russia, I used to tell that story, and people were kind of impressed, because they didn't know it. They didn't know that the initiative actually was suggested by the Russians. And so that... You get some political mileage out of that.

**Diallo:** Well, that's great.

**Baldwin:** Well, I guess...

**Diallo:** Yeah, thank you very much. I think this is great. I think this is fine.

**Baldwin:** I hope you get something you can use.

**Diallo:** Oh, yeah, all of it. All of it.

**Baldwin:** You're very nice. And I wish you a good career, too.

**Diallo:** Thank you.

**Baldwin:** I mean, you know, I have an edge on appointment over there, and it's always refreshing to talk to folks like yourself, because you bring a whole total new perspective, and, you know, as I said, I say it to students, I say you know, you're not going to make the same mistakes we did. Because hopefully we'll tell you about the ones we made, so you're going to make your own mistakes, all new ones, but hopefully you'll have the benefit of our experience, so that you won't go out... At the same time, that you don't go out and reinvent the wheel, either. We can tell you what we did, and what worked and what didn't, and what you... What you ought to think about modifying, and all that. And the smallpox experience was a learning experience for all of us. The surveillance, the containment, the ring containment... Ring vaccination. Everything was a learning experience. Every day was a winding road.

**Diallo:** Well, thank you very much.

**Baldwin:** All right. Well, thank you.

**Diallo:** No problem.