

## Mass immunization: did we do more harm than good?

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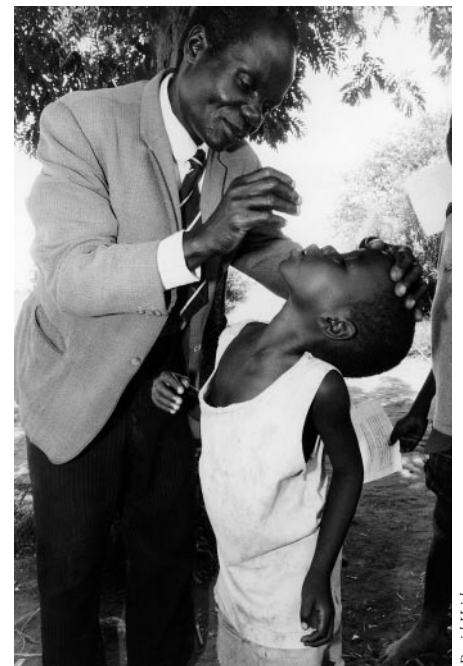
By 1983 the health care system in Uganda was in shambles. It was the immediate aftermath of Idi Amin, and during his 10-year rule, the childhood immunization program had fallen apart. Measles was the leading reported cause of death in the country, and more hospital beds were occupied by patients with measles than for any other disease.

I was there to help restart primary immunization—measles, polio, DPT, and BCG. We knew we were doing something that was needed because almost every day we saw children with withered limbs from polio. In a month we had trained several teams and immunized about 25,000 children. But thinking back on the experience makes me reflect on the complexity of even something as simple as immunization, and the ever-lurking possibility of good intentions leading to more harm than good.

For example, on our third morning we discovered a problem with the “cold chain.” The cold packs had been put in the refrigerator instead of the freezer, and they weren’t frozen. Without frozen cold packs we couldn’t keep measles vaccine viable in the equatorial African heat. At 9 AM we put the packs in the freezer, but by 2 PM they still weren’t frozen. It was 4:30 when I finally arrived at the Busia market, the morning immunization site, to

explain that the vaccinations had to be cancelled. The local nurse said that there had been an excellent turnout, about 1,000 children and mothers, plus the village chief, schoolteachers, and clergy, who had been working for weeks to remind and encourage everyone to come. But now, all the people were gone. The crowd had arrived at 8 AM. It had been hot. There was no water and no lunch for the children. The nurse said that the chief had made very nice speeches about immunization all morning, trying to keep the people patient. At noon they sent everyone on foot to the afternoon site 6 miles away. By the time we drove to the afternoon site, everyone was gone except for 6 men sitting in a hut drinking Pombe, the local homemade beer.

Then, in the second week, something worse happened. We drove 2 hours over rutted dirt tracks to reach the appointed village. We unpacked, only to discover that we had left the box of needles behind. The local schoolteachers and village priest who had organized the turnout and had dressed in their best clothes greeted us with nervous eagerness and pride. They had done wonderfully: there were 700 children crowded into the village center. Again, many of the mothers had come 5 or 10 miles on foot.



A teacher administering oral polio vaccine

But we had only two needles. We argued about what to do but finally went ahead, re-using the same 2 disposable needles on 700 children. We didn’t know that by 1983 HIV infection had taken hold in Uganda. I can’t help wondering if we contributed to the epidemic by our work that day.

—David Heiden, *ophthalmologist, San Francisco*