

Diplomacy And The Polio Immunization Boycott In Northern Nigeria

With scientific evidence and pressure from political allies and religious authority figures, a Nigerian polio vaccine boycott was brought to an end.

by **Judith R. Kaufmann and Harley Feldbaum**

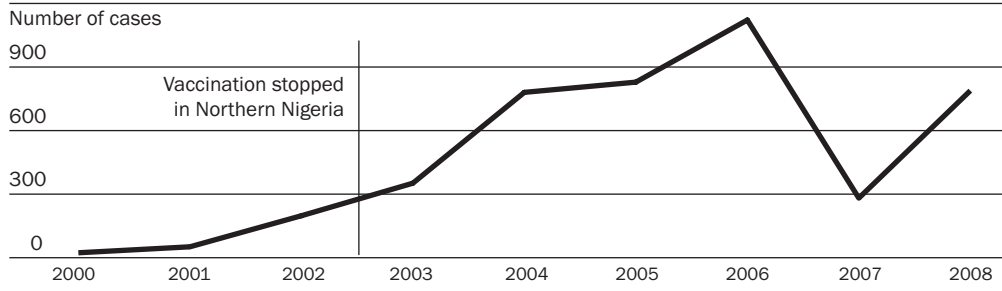
ABSTRACT: The boycott of polio vaccination in three Northern Nigerian states in 2003 created a global health crisis that was political in origin. This paper traces the diplomatic actions that were taken by the Global Polio Eradication Initiative, the United Nations, and the U.S. government, to restart polio vaccination and resolve the crisis. The polio vaccination boycott in Northern Nigeria provides a useful case study of the practice of global health diplomacy. [*Health Affairs* 28, no. 4 (2009): 1091–1101; 10.1377/hlthaff.28.4.1091]

IN AUGUST 2003 THE POLITICAL LEADERSHIP of several Northern Nigerian states responded to community pressure and banned federally sponsored polio immunization campaigns. The stoppage was justified by “evidence” that the polio vaccine was contaminated with antifertility drugs intended to sterilize young Muslim girls. The suspension in Northern Nigeria, particularly in Kano State, led to a global outbreak of polio; the disease spread into twenty countries across Africa, the Middle East, and Southeast Asia and caused 80 percent of the world’s cases of paralytic poliomyelitis during the stoppage. The vaccine boycott eventually led to costs of more than US\$500 million to control the polio outbreak, and it essentially ended hopes of eradicating polio in this decade (Exhibit 1).¹

The solution to this global health crisis, caused by internal Nigerian political forces, was not typical: not only was epidemiological information required, but also diplomatic action. Previous literature has examined the political and public health background to the crisis, and the public health response to the vaccination stoppage.² What has not been previously reported is how international diplomatic tools were mobilized to end the formal political boycott. There has been much discussion recently of “health diplomacy,” but few case studies or little his-

.....
Judith Kaufmann (kaufmannjr2@aol.com) is a visiting scholar at the Global Health and Foreign Policy Initiative, Paul H. Nitze School of Advanced International Studies, in Arlington, Virginia. Harley Feldbaum is associate director of this initiative, at its Washington, D.C., office.

EXHIBIT 1 Cases Of Wild Poliovirus In Nigeria, 2000–December 2008



SOURCE: World Health Organization/Global Polio Eradication Initiative, "Wild Poliovirus 2000–2009," April 2009, <http://polioeradication.org/content/general/casecount.pdf> (accessed 10 April 2009).

torical examination of how diplomacy and health interact.³ By examining the diplomatic response to the polio boycott in Nigeria, this paper provides a case study in the use of traditional diplomacy to support global health efforts—an important component of health diplomacy.

This case study is based on a literature review, examination of previously unavailable Global Polio Eradication Initiative (GPEI) and U.S. government documents, and thirteen in-depth interviews with people involved in the crisis. Interviews were used to go beyond published accounts of the crisis and to illuminate the experiences, perspectives, and interests of both policymakers and institutions.

Origins Of The Vaccine Boycott

Historical political, ethnic, and religious tensions in Nigeria were exacerbated after the April 2003 election, when retired General Olusegun Obasanjo, a born-again Baptist from the southern part of Nigeria, was elected to a second term as president over retired General Muhammadu Buhari, a Muslim northerner. Reflecting and exacerbating these tensions were regional disparities in the provision and use of health services, with poorer health outcomes found in the North.⁴

The *Weekly Trust*, an important northern newspaper, reported that the formal suspension began at a 21 July 2003 meeting of the Jama'atul Nasril Islam (JNI, a northern umbrella group of Muslim organizations):

One of the Emirs presented a memo on the concerns and apprehensions of his people on the allegations that the polio vaccination campaign was being used for the purpose of depopulating developing countries, and especially Muslim countries. ...Although some of the more senior Emirs tried to dismiss the observation as mere rambling by their subjects, the Supreme Council on Sharia implementation in Nigeria led by a respected Kano-based medical doctor, Dr Datti Ahmed brought the apprehensions into full public glare when...he told newsmen that his council had reasons to suspect contamination of the polio vaccines with HIV/AIDS virus, anti-fertility substances and other dangerous elements.⁵

According to then U.S. Ambassador to Nigeria John Campbell, the boycott "was about fear and disaffection at the popular level that fastened on immunization as a precipitant. ...Once the safety of the vaccines became a popular issue, which lead-

ers could not control, they gave in with some reluctance.” He continued by saying, “This was not really about technical issues. The issue was Northern Nigeria’s thorough disaffection with the Obasanjo government.”⁶

A source who has worked closely with the Nigeria polio program said, “This was one of the clearest examples of a public health issue being hijacked for political reasons. ...The bulk of people were sincerely concerned, but clearly the leadership and the encouragement to continue was political.” The global polio vaccination campaign had become enmeshed in local Nigerian politics, with northern political leaders ceasing polio immunizations in their states.⁷

Early Response To The Vaccine Boycott

Rumors about safety have plagued many immunization programs, including in the United States, where there are groups and Web sites devoted to theories about the links between immunizations and conditions such as autism.⁸ As the United Nations Children’s Fund (UNICEF) notes, “Occasionally rumours arise such as a link between immunization and family planning or that vaccination could cause HIV/AIDS. While these rumors are groundless, when they spread, they can severely damage immunization efforts.”⁹ Generally speaking, local leaders with influence in the community are most effective in countering rumors when they arise.¹⁰

When rumors about tainted vaccine first began to circulate in Nigeria in 2003, the initial assumption by those involved was that these rumors would be short-lived and that tools and lessons learned from other regions would be sufficient to convince those involved to recommit to the campaign.¹¹ Gianni Murzi, the UNICEF Nigeria director at the time, explained:

Our own Western-oriented...background tells us if vaccine is found to be good, then it’s scientifically good, that’s it. ...Instead, the population who rejected it was thinking in other terms, and we didn’t realize the power of that and how disruptive that could have been. ...We didn’t see it coming, and unfortunately that is quite normal.¹²

The United Nations Envoy

Simultaneously, but completely separately, then U.S. Secretary of State Colin Powell and UNICEF headquarters suggested to United Nations (UN) Secretary-General Kofi Annan that he send Ibrahim Gambari, the secretary-general’s senior adviser for African affairs, to Nigeria as the secretary-general’s special envoy. Normally, the UN Secretariat would not send a national of a country to negotiate in his or her country of origin, for fear of conflict of interest or pressure being put on the individual. However, in this case, most felt that Gambari was uniquely qualified. Gambari’s father was a Muslim northerner and Emir of Ilorin, and his mother was a southerner. Gambari has served under virtually all of the surviving former Nigerian presidents, including those with presumed influence in the North, and had managed President Obasanjo’s 1991 campaign to be UN secretary-general.

Gambari met with President Obasanjo and the federal minister of health in

early 2004. According to Gambari, President Obasanjo approved visits to the Sultan of Sokoto, the Emir of Kano, traditional leaders of the Muslim communities, and former presidents, including General Buhari, saying, “You get to where I find it difficult to get to. They will probably listen to you more than they will listen to me, and you will have access.”¹³ Gambari presented letters from the secretary-general, appealing for their help and their intervention to resolve the boycott.¹⁴ He spent four hours in heated debate with Datti Ahmed, the doctor who had first called for the suspension of the polio immunization campaign.

Sokoto demonstrated the complexity of the situation. The Sultan of Sokoto is traditionally a spokesman for the region’s Muslims on important issues.¹⁵ He is also the head of the JNI. However, the JNI secretary-general was an opponent of polio immunization. Thus, although Gambari felt that the sultan was convinced by the plea that the boycott was hurting children and giving Nigeria a bad name, others within the religious establishment continued to support the boycott.

The sultan did join President Obasanjo at the kick-off of the polio immunization campaign in neighboring Zamfara State in March 2004, and Gambari left Sokoto with assurances from the governor that he would support immunization and would work to convince his colleague, the governor of Kano.

The trip to Kano was, according to Gambari, the most difficult. Gambari describes Kano this way: “Kano has always gone the opposite way politically from the rest of the country. ...Then, of course, they like to give trouble to the central government on an issue where the central government is vulnerable, religion.”

Because the governor was of General Buhari’s party, it was in his political interest to make things difficult for President Obasanjo. To both the governor and Dr. Ahmed, Gambari’s message was simple: “Suppose you are wrong. ...You are going to condemn a whole people to this life of misery. At least consider you may be wrong.” Although not immediately successful, Gambari felt that he had created some doubts. Murzi said of Gambari’s visit, “With his ability to work in the North, he succeeded in helping us establish a dialogue up North. That visit was instrumental. It opened up the doors for increased conversation.”

The GPEI And The Organization Of The Islamic Conference

In 2003 the GPEI Secretariat, headquartered at the World Health Organization (WHO) in Geneva, began contact with the Organization of the Islamic Conference (OIC), “an inter-governmental organization grouping fifty-seven States [whose mission is] to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.”¹⁶ The rationale was that the six remaining polio-endemic countries at the time (Nigeria, Niger, Egypt, India, Pakistan, and Afghanistan) either were majority Muslim or had large Muslim populations, especially in the endemic areas.¹⁷ All but five of the fifty-seven OIC members were polio-free, thanks to advice and support from the GPEI—including advice on choice of vaccines—and could thus

“Ultimately, a number of fatwas, or Islamic religious rulings, were issued on polio vaccination.”

.....
 counter questions about the efficacy and safety of the polio vaccine and the aims of the eradication initiative.

Anand Balachandran, GPEI interagency coordinator and a social scientist, saw that “the OIC, being a political body, was a platform...important to defusing the idea that the GPEI and WHO were controlled by Western donors.”¹⁸ The secretariat first built a relationship with the OIC ambassador in Geneva, a Senegalese, who played a key role in getting the ambassadors of the OIC countries in Geneva engaged. The GPEI secretariat then briefed these ambassadors in Geneva, London, and New York. The briefings moved the polio crisis and eradication issues beyond ministers of health to gain broader diplomatic and political support.

The Nigerian boycott, and the continued spread of polio outside Nigeria’s borders, made the approach to the OIC more urgent. With the Tenth Islamic Conference scheduled for 16–17 October 2003 in Malaysia, David Heymann, the newly appointed special envoy on polio of the WHO director-general, contacted the Malaysian minister of health, with whom he had worked on severe acute respiratory syndrome (SARS) earlier. The minister and the government of Malaysia put polio on the summit agenda, which was, as Heymann describes it, “quite unusual, particularly in a politically charged atmosphere.”¹⁹

The resolution at the OIC summit urged the remaining polio-endemic OIC countries, including Nigeria, to accelerate their efforts and called on the international community, including OIC members and philanthropic organizations in the Islamic world, to fund the effort.²⁰ The GPEI continued to share information with the OIC through the ambassadors in Geneva, including evidence on the safety and efficacy of the vaccines.

Quietly, with support from the GPEI, the OIC secretariat and the regional director for WHO’s Eastern Mediterranean Regional Organization (EMRO) worked to get religious leaders to speak out on polio. Ultimately, a number of fatwas, or Islamic religious rulings, were issued on polio vaccination.²¹ These were important in countering the argument that the vaccine was a Western plot to wipe out Muslims. They also gave, according to Balachandran, “space and options for the political decision makers to move the issue from one of religion concern to the political realm, where they could come up with a deal.”²²

Heymann says of the outreach to the OIC and to other regional organizations, “The most valuable thing was getting the OIC involved and they were helpful in many, many ways as was the African Union. ...Plus getting some Islamic interpretation through the [Islamic] Fiqh [Academy], which was helpful in understanding...that the vaccine was safe. We had great help from the Islamic community.” Such help took concerted and coordinated outreach by the GPEI.

The U.S. Government

Polio was already on the policy radar screen in the United States in 2003–2004. The U.S. government had decided to make closing the GPEI funding gap a goal of the 2004 G8 Sea Island Summit. One U.S. government official recalls that the U.S. view was that eradicating polio fit perfectly with U.S. interests. The United States was already the largest donor to the GPEI, and the goals of closing the funding gap and eradicating polio by 2005 seemed achievable. Also, the GPEI was a public-private partnership, in line with U.S. government policy preference.

The Centers for Disease Control and Prevention (CDC) had personnel in Nigeria. They reported their concerns about the immunization efforts and the vaccine boycott to the U.S. Department of Health and Human Services (HHS), which suggested to the National Security Council in October 2003 that President George W. Bush send a letter to President Obasanjo, urging him to move forward with the immunization campaign. Others felt that too overt an intervention by the United States could exacerbate the problem in Northern Nigeria, where the war in Iraq had eroded support for the United States and where the polio immunization campaign was seen as a Western plot.²³

At the same time, the State Department's small office of International Health Affairs (IHA) suggested to the Bureau of African Affairs (AF) an action plan for diplomatic action on polio. Although sympathetic, AF had other priorities. Nigeria was playing an important role in peace-keeping efforts in Sierra Leone and Liberia and had provided safe haven to former Liberian President Charles Taylor, to help end the civil war in that country. The United States had economic interests as well; Nigeria was the fifth-largest supplier of crude oil to the United States, so AF did not focus intently on the polio issue.

However, in January 2004 Secretary of State Powell raised the boycott in a staff meeting and asked for more information. To respond to the request with specific action items, IHA asked for suggestions from the CDC, the U.S. Agency for International Development (USAID), and GPEI. Ellyn Ogden of USAID said that even with all of her experience, including being a part of the team working on the G8 summit, she didn't know what diplomatic tools were available:

I was having a hard time making that transition from a technical person in epidemiology to what tools did State have. ...I didn't know what to ask for. I didn't know about demarches, I didn't know about briefing notes or cables. I didn't know what State could bring.²⁴

William Steiger, the head of the HHS Office of Global Health Affairs, emphasizes the importance of giving policymakers specific actions that can be taken:

You need to break the situation down into very understandable pieces, preferably with specific outcomes or specific steps to get senior policymakers to agree or to have their buy-in. If we had just said polio is a disaster but we don't know what to do about it, I don't think we would have gotten anywhere. We were able to say, OK, we have a problem, we think we have a several things that we'd like to have you do. ...It made everybody understand more easily how we could play a role.²⁵

Following up on the suggestions, then HHS secretary Tommy Thompson sent a letter to his Nigerian counterpart and made polio a part of his visits to Pakistan, India, and Afghanistan in April 2004. HHS deputy secretary Claude Allen raised the polio issue on a previously scheduled trip to Nigeria, using information from the GPEI to suggest approaches to non-Nigerian Islamic leaders who might be helpful. Secretary Powell met with his Nigerian counterpart in New York and raised the issue of polio, as did senior officials of State when they visited the Middle East and Pakistan. The State Department complemented GPEI efforts with the African Union (AU). In July 2004 Assistant Secretary of State for African Affairs Constance Newman delivered to former president of Mali, Alpha Oumar Konaré, the head of the AU, a letter from Secretary Powell urging action on polio at the 3–6 August Addis Ababa (Ethiopia) summit.

Instructions were sent to the U.S. Embassy in Nigeria, which established a task force to ensure coordination. The chargé d'affaires met with the governor of Kano to urge an end to the boycott. U.S. embassies in the region were asked to discuss polio with their counterparts and to urge host governments to do what they could to turn around the situation in Northern Nigeria.

The End Game?

It is hard to know precisely why the governor of Kano finally ended the boycott. Many of those interviewed for this paper believe that there may have been an internal Nigerian deal. Others say “no,” arguing that any deal would have become public knowledge and thus would have threatened the governor’s reputation. What is known is that the governor of Kano, by April of 2004 the sole government official opposing immunization, was under increasing pressure. The diplomatic efforts described above ensured that the governor understood the cost to his and Kano State’s reputation if the boycott continued. The WHO was able to provide evidence that 80 percent of global cases of polio paralysis in the world originated in Kano. Or it may simply be that the official boycott had outlived its political usefulness for the Kano government.

Some people feel that another technical action, albeit one with diplomatic ramifications, might have contributed to the resolution. By 2004, countries around the world were asking the WHO and the GPEI, in their technical advisory role, for advice on what steps should be taken “to prevent or limit the international spread of wild poliovirus.”²⁶ While the WHO had been asked by countries for advice, Heymann said that an explicit goal was to make sure that Saudi Arabia understood the potential spread of polio and the role of vaccine in stopping outbreaks, particularly during the January 2005 Hajj (the annual pilgrimage to Mecca, in Saudi Arabia). The WHO sent a *note verbale* to all WHO members outlining the recommendations that were included in the *Weekly Epidemiological Record* of 6 August 2004.²⁷ The WHO Representative in Nigeria, among others, made certain that the governor of Kano was aware that travelers from Kano might have to be

“Work remains to be done in convincing communities to allow their children to be immunized.”

.....

vaccinated at the airport to travel elsewhere, including to the Hajj. The possibility of Saudi Arabia's instituting WHO recommendations on polio vaccinations undercut the contention that polio immunization was a Western plot to sterilize Muslims.

At the same time, the CDC was looking into whether similar restrictions on travels to the United States were advisable. U.S. Ambassador Campbell told the CDC that he was prepared to support such restrictions, if they were scientifically based and necessary for the protection of the U.S. public. He made sure that officials in Nigeria knew of the possibility that the United States would follow the WHO recommendations to require vaccination before travel.

On 30 June 2004, in the same media release in which it announced the consultative process with experts to “evaluate additional measures that might be required to prevent the further international spread of wild poliovirus from Northern Nigeria,” the WHO announced that it had been informed by the governor of Kano of “the intention to resume polio immunizations campaigns there in early July.”²⁸

Other discussions helped achieve a face-saving way to withdraw. Heymann's conversations with the governor of Kano in summer 2004 suggested the use of a panel of pediatricians to recommend restarting vaccination. In addition, UNICEF's ability to quietly divert shipments of polio vaccine produced in Indonesia, a Muslim country, for use in Nigeria allowed the face-saving claim that a safer vaccine was to be used for vaccination (Indonesian-manufactured vaccine had been used for years in Nigeria, even before the boycott began). The idea of supplying vaccine from a Muslim country chosen by the health officials in the North had first surfaced during Gambari's visit.

The boycott began with parents who were disgruntled with the lack of health services. The governor of Kano's decision to allow the resumption of immunization campaigns removed only one barrier to polio eradication in Nigeria. Work remains to be done in convincing communities to allow their children to be immunized.

Global Health Diplomacy Lessons

One person who worked with the GPEI to resolve the boycott said, “The greatest lesson is for the public health community that we are dealing with a political thing.”²⁹ This case study holds a number of lessons for global health and insights into the practice of health diplomacy.

■ **Diplomacy as a useful global health tool.** Diplomacy can be a useful tool in pursuing global health efforts. This is particularly true when the challenges to global health efforts are political, rather than scientific, as they were in this case. Resolving

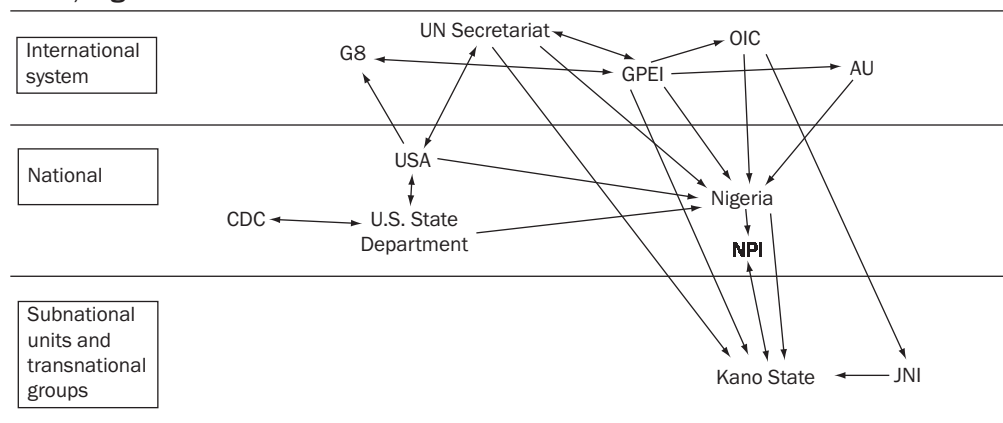
problems such as the vaccine boycott, or the sharing of influenza virus samples, will increasingly rely on diplomatic action. However, diplomacy is not a panacea and could not greatly alter the regional health-status disparities in Nigeria that contributed to the boycott.

■ **Global, complex undertakings.** Both health and health diplomacy are global and are characterized by great complexity and a highly diverse constellation of actors. This crisis began at the subnational level in Nigeria; affected a global eradication effort supported by other nations, international organizations, and nongovernmental organizations (NGOs); and was only resolved by using diplomacy across these levels to restart vaccinations (Exhibit 2). This global environment makes operationalizing health diplomacy a complex endeavor, because diplomacy may involve numerous and nontraditional actors (such as the OIC) in responding to global health problems.

■ **Need to generate action.** The need for actionable suggestions is critical to engaging governments; simply saying that the vaccine boycott was a problem did not generate action. To enact such suggestions, public health professionals need to learn how to approach diplomats and ministries of foreign affairs. Similarly, diplomats require greater training on the role that health can play in foreign policy. Only then will the problems of coordination on global health issues, both within countries and between nations and international institutions, begin to be solved.

■ **Science and politics.** Although scientific evidence on the spread of polio was useful in pressuring Kano State to rescind the boycott, the flexibility to address political perceptions of the situation was also critical. Suggesting the use of a panel of pediatricians to give the governor of Kano political cover to retreat from the boycott

EXHIBIT 2
Interactions Between Global Actors Working To Resume Polio Eradication In Kano State, Nigeria



SOURCE: Authors' analysis.

NOTES: UN is United Nations. G8 is Group of Eight. OIC is Organization of the Islamic Conference. GPEI is Global Polio Eradication Initiative. AU is African Union. CDC is U.S. Centers for Disease Control and Prevention. NPI is National Program on Immunization. JNI is Jama'atul Nasril Islam (Nigeria's umbrella Muslim organization).

and diverting vaccine shipments from Indonesia to Nigeria to address Nigerian Muslims' perceptions of the vaccine were unusual but effective actions in restarting vaccination. Notifying the governor of Kano that Saudi Arabia would institute vaccination requirements for the Hajj and enlisting Islamic scholars and fatwas are further examples of well-targeted diplomatic pressure in service of global health.

DESPITE THE OBVIOUS GOOD DONE BY DIPLOMATIC efforts, it is important to realize that it was a combination of local and international, technical and diplomatic efforts that eventually led to a resolution of the formal Kano boycott. The end was not quick, and it is hard to ascribe success to any single action. Flexibility; coordination among multiple actors; and a willingness to mix politics, public health, and diplomacy were all a part of the effort. All must be part of the toolbox to address future global health challenges.

.....
The authors gratefully acknowledge the funding provided by the Bill and Melinda Gates Foundation. They thank Scott Barrett and Joshua Michaud of the Global Health and Foreign Policy Initiative, Duza Baba for his help with Exhibit 2, and Anand Balachandran for help with the timeline (in the online appendix; see Note 7 below).

NOTES

1. L. Roberts, "Infectious Disease: Vaccine-Related Polio Outbreak in Nigeria Raises Concerns," *Science* 317, no. 5846 (2007): 1842.
2. See, for example, M. Yahya, "Polio Vaccines—'No Thank You!' Barriers to Polio Eradication in Northern Nigeria," *African Affairs* 1067, no. 423 (2007): 185–204; A.S. Jegede, "What Led to the Nigerian Boycott of the Polio Vaccination Campaign?" *PLoS Medicine* 4, no. 3 (2007): e73; and E. Renne, "Perspectives on Polio and Immunization in Northern Nigeria," *Social Science and Medicine* 63, no. 7 (2006): 1857–1869.
3. I. Kickbusch et al., "Global Health Diplomacy: Training across Disciplines," *Bulletin of the World Health Organization* 85, no. 12 (2007): 971–973; V. Adams, T.E. Novotny, and H. Leslie, "Global Health Diplomacy," *Medical Anthropology* 27, no. 4 (2008): 315–323; and M. Chan, J.G. Store, and B. Kouchner, "Foreign Policy and Global Public Health: Working Together towards Common Goals," *Bulletin of the World Health Organization* 86, no. 7 (2008): 498.
4. Jegede, "What Led to the Nigerian Boycott?"
5. "Nigeria Polio Vaccine: Controversy Over or Renewed?" *Weekly Trust*, 6 March 2004.
6. John Campbell, ambassador to Nigeria, interview, 26 November 2007.
7. A timeline of these events is available in an appendix, online at <http://content.healthaffairs.org/cgi/content/full/28/3/1091/DC1>.
8. See, for example, the National Vaccine Information Center (NVIC) home page, <http://www.nvic.org>, and the Global Vaccine Awareness League (GVAL) home page, <http://www.gval.com>.
9. UNICEF, "Engaging Communities," http://www.unicef.org/immunization/index_communities.html (accessed 10 April 2009).
10. For example, when rumors about the polio vaccine circulated among Coptic Christians in Alexandria, Egypt, in 2002, vaccinations were done in the churches, to counter the rumors. See B. Hiel, "Egypt Remains Committed as It Closes In on Becoming Polio-Free," *Pittsburgh Tribune-Review*, 3 April 2005.
11. United Nations Children's Fund, Eastern and Southern Africa Regional Office, *Combating Antivaccination Rumours: Lessons Learned from Case Studies in East Africa*, http://www.path.org/vaccineresources/files/Combating_Antivac_Rumors_UNICEF.pdf (accessed 16 January 2009).
12. Gianni Murzi, UNICEF, personal communication, 8 January 2008.
13. Ibrahim Gambari, UN special envoy, interview, 6 December 2007.
14. Press Release, Ibrahim Gambari, 17 March 2004 (received from the GPEI).

15. M. Plaut; "Obituary: The Sultan of Sokoto," 29 October 2006, <http://news.bbc.co.uk/2/hi/africa/6096858.stm> (accessed 10 April 2009).
16. Organization of the Islamic Conference, "About OIC," http://www.oic-oci.org/page_detail.asp?p_id=52 (accessed 10 April 2009).
17. Since then, two countries, Egypt and Niger, have gone at least a year without a case of indigenous polio.
18. Anand Balachandran, GPEI, interviews, 10 and 12 December 2007, and subsequent e-mail correspondence.
19. David Heymann, World Health Organization, interview, 10 December 2007.
20. UNICEF, "Joint Press Release: Global Polio Eradication Initiative Welcomes OIC Decision to Step Up Effort to Eradicate Polio," http://unicef.org/media/media_15021.html (accessed 10 April 2009).
21. Fatwas on polio vaccination were issued in late 2003 and early 2004 by Dr. Mohamed Sayed Tantawi, Grand Imam of El Azhar Al Sharif; the Islamic Fiqh Academy (circulated by the OIC); Muhammed Abdul Alim, Grand Mufti of Egypt; and, Abdul Aziz Ibn Abdullah Ibn Baaz, Grand Mufti of Saudi Arabia and president, Committee of Muslim Scholars.
22. Balachandran, personal communication, 21 February 2008.
23. Obasanjo was well known in Washington and appreciated for his commitment to health issues. He stood at President Bush's side when the latter announced the first governmental contribution to the as yet non-existent Global Fund to Fight AIDS, Tuberculosis, and Malaria, in May 2001.
24. Ellyn Ogden, USAID, interview, 14 November 2007.
25. William Steiger, HHS Office of Global Health Affairs, interview, 17 January 2008.
26. World Health Organization, *Weekly Epidemiological Record*, 32, no. 79 (6 August 2004), pp. 289-290, <http://www.who.int/wer/2004/en/wer7932.pdf> (accessed 10 April 2009).
27. A *note verbale* is a memorandum, written in the third person and unsigned, used to convey information to a representative of a government.
28. WHO, "Kano, Nigeria, Informs WHO of the Intention to Resume Polio Immunization Campaigns," Press Release, 30 June 2004, <http://www.who.int/mediacentre/news/notes/2004/npl6/en> (accessed 10 April 2009).
29. Anonymous, interview, 12 December 2007.