

Islam and Immunization in Northern Nigeria

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Allah the Great and Almighty has created for each disease a remedy.

---Ibn Qayyim Al-Jawziyya, *The Prophetic Medicine*

Sūra 6, 140. They are lost indeed who kill their children foolishly without knowledge, and forbid what Allah has given to them forging a lie against Allah; they have indeed gone astray, and they are not the followers of the right course.

---*The Qur'ān*

Hadith 11. Leave that which makes you doubt for that which does not make you doubt.

-- An-Nawawi's *40 Hadith*

This paper focuses on the association of Islam with resistance to immunization in Northern Nigeria and to the distribution of oral polio vaccine during the ongoing polio eradication initiative (PEI). Both routine immunization and taking oral polio vaccine are acceptable practices for many Muslim parents in Northern Nigeria. For them, the main obstacle has been the lack of available vaccines (FBA 2005). For others, they are willing take their children for vaccination at local clinics and hospitals when diseases such as measles or meningitis threaten (Ejembi et al. 1995). At such times, their fear of disease overshadows the perceived risks of vaccination. However, for some, immunization has been seen as unnecessary or even possibly dangerous undertaking for infants and children who are not experiencing health problems, regardless of impending epidemics. For these parents, prayer is not only sufficient, but is the only real protection against disease, which ultimately comes from God. Terms such as *kariya Allah*, translated as natural immunity, have a distinctive meaning in this context. In this case, natural immunity refers to the special protection (*kariya*) given by Allah, rather than to the responses of the immune system exposed to a particular virus (as opposed to immunity derived from vaccines).<sup>1</sup> This latter view is supported by the influential text, *The Prophetic Medicine*, which

stresses that for every disease, God has created a cure—which may consist of prayer alone or may be combined with specific medicinal substances, including Western medicine (*maganin boko*), among others. Thus, as will be seen, Islamic scholars and Muslims in Northern Nigerian more generally, are not categorically opposed to Western medicine. However, immunization—which requires the injection or ingestion of disease-laden substances (either killed or attenuated viruses)—may be seen as an unclean or harmful practice which threatens children’s health. In trying to follow Islamic precepts not to harm one’s children, parents need to assess the risks and benefits of vaccination, deciding how to proceed is not always clear.

The paper begins with a general overview of Islamic medicine as practiced in Northern Nigeria, including measures taken to prevent disease, concepts of immunization, and the treatment of specific symptoms using traditional Hausa medicine, Western medicine, prayer, and the appeasement and exorcism of spirits (*aljenu*). How immunization, in particular, is interpreted in Northern Nigeria reflects the specific political context in which Islam has historically emerged, the role that Islam and Shari’a law plays in local/regional/national politics, and differences in Islamic practice in Zaira. While interviews and archival documents suggest that present-day resistance of Muslim teachers to the distribution of oral polio vaccine continues earlier resistance to smallpox immunization campaigns, the PEI began at a time of considerable political tension and insecurity for Northern Nigerians (Last 2008), relating to national and international affairs. The paper concludes with a discussion of the complex responses to this sense of an increasing threat to the Muslim community—expressed in the resistance to some interventions from outside, seen as detrimental, while others, seen as beneficial, are eventually accepted.

## Islamic Medicine in Northern Nigeria

*Magani abu Allah* (Medicine is a thing of God) ---Bus saying, Zaria, 2007

From the 15<sup>th</sup> century on, when Islam was gradually introduced into Northern Nigeria by traveling scholars and traders until the reformist jihad of Sheikh Shehu dan Fodio in 1804 and the establishment of the Sokoto Caliphate, Islamic medicine has been practiced along side Hausa medicine (Abdalla 1997). While a range of traditional Hausa medical practitioners—including *boka* (specialists in herbal medical treatment for various ailments), *mai magani* (those collecting and selling herbal and other medicines), *unwanzani* (literally, barbers, those who performed circumcision and blood-letting), *mai doro* (specialists in bone setting), and *mai bori* (those who addressed illness attributed to *bori* nature spirits) provided medical services to the general population, Muslim scholars (*malamai*) from other parts of West Africa residing in Kano and other urban centers were called upon to offer cure for ailing emirs and princes (Abdalla 1997:102). Their work was based on written texts on *materia medica*—vegetal and mineral medical treatments—and on *The Prophetic Medicine* (Al-Jawziyya 2001) which consists of a compilation of Hadith (sayings of the Prophet) and portions of *The Qur'an* pertaining to illness which stress the power of prayer in prevention and cure. These different medical systems operated as parallel practices until the reforms of the 1804 jihad when certain aspects of Hausa medicine were viewed as un-Islamic and when respect for Arabic texts associated with Islamic medicine grew, attracting a more broadly-based following (Abdalla 1997:102). Attendance to the spiritual causes of disease began a gradual shift from belief in *bori* spirits—associated with Hausa medicine—to the belief that Allah alone, seen as the source of all illness and cure. A range of spirits—angels (*mala'ika*), jinn (*aljenu*), and devils (*shaitan*)—all viewed as under the control of Allah—were also part of this cosmology.<sup>2</sup> However, while Sheikh dan Fodio and his son Bello Muhammad focused on

eliminating particular aspects of traditional Hausa religious practice which were used in treating or preventing illness—specifically, *bori* spirit worship divination, numerology, and astrology (Last 1967:4-5), as well as, the impact of their reforms on local understandings of disease occurred gradually. Indeed, a sense of the tentative acceptance of these changing concepts of spirits and causes of disease may be seen in Baba of Karo’s comment about *bori* spirits which she made to Mary Smith in 1950, when Baba was living at Giwa:

All of the rulers like the *bori*—if they didn’t, would their work be any good? Of course they all agree with them. So do the *malams* [Islamic scholars], secretly. The *malams* will call on the *bori* in private, in the darkness of the night. Everyone wants the spirits, kings and noblemen want them, *malams* and wives shut away in their compounds—it is with them that we work in this world, without them would our labor be of any use? The work of *malams* is one thing, the work of *bori* experts is another, each has his own kind of work and they must not be mixed up. There is the work of *malams*, of *bori*, of magicians, of witches; they are all different but at heart everyone loves the spirits. There are spirits of the bush animals, there are spirits of the bush trees, there are spirits of the rocks, there are spirits of the paths, there are spirits of men inside the town (Smith 1954:222; see Abdalla 1991:44).

This tension between belief in the work of *malamai* and the work of *bori* specialists was evident in past cases of children who contracted paralytic polio, when some family members would take the child to an Islamic scholar while others would surreptitiously take the child to a *bori* healer:

They were trying to help me. And my father and his male family members were mallamai—Muslim scholars. It was my grandmother who was getting medicine in secret, medicine such as traditional medicine from *bori* people. But God didn’t make me stand up (Interview: PP-06-11, Zaria City, 10 August 2005).

However, the situation described by this older woman living in Zaria City and by Baba of Karo is no longer extant in towns such as Zaria. Rather, it is belief in *aljenu* (jinn) spirits—distinct from “pagan” *bori* spirits—that helps to account for unexplained illness and mysterious symptoms, such as paralysis. These spirits are the province of *malamai*, particularly those trained in the Sufi tradition of Islam. While Sufism has itself been put into question by the more recent reformist Muslim religious group, known as Izala (*Jama’atu Izalat al-Bid’a wa Iqamat al-*

*Sunna*) which was established in Northern Nigeria in 1978 (Umar 1993:167), Sufi *malamai* continue to be consulted in many parts of the North. Indeed, Sufi practices have long been part of Islamic medicine in the North, which were referred to by Muslim scholars during the early 19<sup>th</sup> century. Indeed, the writings of the early Sokoto Caliphate scholars have continued to influence people's thinking about Islamic medicine into the 21<sup>st</sup> century.

### *19<sup>th</sup> Century Hausa Islamic Medical Scholarship*

In the Sokoto Caliphate which emerged in what is now Northern Nigeria, the three earliest and most renowned Hausa Islamic scholars to write on medical issues were closely involved in the jihad, as medicine was considered to be an integral part of the jihadist reforms. These men included Sheikh dan Fodio's brother, Abdullahi dan Fodio, and son, Muhammad Bello, as well as an important jihad intellectual, Muhammad Tukur (Abdalla 1997:103). Their written work continues to influence the thinking of Islamic scholars in Northern Nigeria on health. As will be seen, their three distinctive views on illness and cure are reflected in the different views by specialists and the public alike toward immunization presently.

Muhammad Tukur's main work, *Qira' al-Ahibba*, written in 1809, was deeply influenced by medieval Sufi writings on health. For him, prayer was the primary source of prevention and cure (Abdalla 1997:104), a view supported by the volume, *The Prophetic Medicine*. Conversely, Abdullahi dan Fodio emphasized that maintaining the health of the body itself was akin to a form of prayer. In his work, *Masalih al-Insan al-Muta'alliqa bil Adyan wal 'Abdan* (Important Consideration for man Relating to Religion and Health), Abdullahi stressed the importance of consulting physicians who were knowledgeable about medical treatments, according to Shari'a law, in other words, as long as they did not incorporate forbidden substances such as alcohol. These

men also differed in their views on who could properly attend to the health of the Muslim community, as Abdalla (1997:114) has noted:

Abdullahi's stand vis-à-vis other religions and non-Muslim practitioners is clear in the *Masalih*. They have no place in the scheme of medical care he advocates. Unlike Tukur who, for example, was pleased to get some useful medical information from a non-Muslim practitioner, Abdullahi trusts none other than fellow Muslims with the health care of the community. To him, Hausa medicine must depend on Islamic medicine if the community is to benefit by it fully.

In his extensive writings on medicine, Muhammad Bello combined aspects of these two men's work as he wrote both on Prophetic medicine and on Islamic *materia medica*, mainly based on Middle Eastern sources (Abdalla 1997:95). Bello strongly supported the use of Prophetic medicine, although he noted that it would only work if one had "a total and unquestioning belief in the infallibility of the Prophet and his medicine" (Abdalla 1997:98). However, he did not oppose the use of Hausa traditional medicine (*magani gargarjiya*) nor did he rule out using materials and medical advice from the West. Indeed, in 1825, Bello negotiated with the British explorer, Hugh Clapperton that upon his return to Sokoto, he would bring a medical doctor with him (Last 1967:8; Lockhart and Lovejoy 2005:21).

While his writing on *materia medica* focused on earlier Islamic texts whose authors came from the Middle East and North Africa, Muhammad Bello began a project whereby herbal and mineral remedies be related to locally available materials, including a listing of such materials in the local languages of Hausa, Fulani, and Tuareg (Abdalla 1997:99). Although this project was not completed, it suggests his concern with making Islamic medicine—in both its spiritual and material forms—available to the general public. From his perspective:

...his aim and that of other jihad leaders was two-fold: to suppress non-Islamic practices in health care, and to improve the general health of fellow Muslims as a prerequisite for the realization of Allah's Will on earth (Abdalla 1997:102).

*Influence of Hausa Medical Scholars on Contemporary Interpretations of Islamic Medicine*

These twin themes of reforming health care according to Islamic precepts and improving the health of Muslims in Northern Nigeria may be seen in views of the Muslim scholars and healers about current medical care. For example, the tradition of Muhammad Tukur who stressed prayer above all other treatments, has continued in the work of Sufi healers such as Malam Hassan of Kano (Fig. 1), who uses his extensive knowledge of Islamic texts in prayers for those suffering from conditions caused by spirits (*aljenu*). As he explained:

I'm only praying for the people, and the prayers come from the Qur'an and the prayers the Prophet Muhammed did. That is what I am doing to cure people. Even yesterday I cured one girl. I was in the mosque, they called me. After I finished praying then I went to the house. I saw the girl, I called her name, and she answered and she said she could not stand up. I prayed for her, and she stood up and she felt better. But as I said, I cannot do anything about Shan Inna [polio]. What I can do is if a person is sick or a spirit enters a person's body before it does harm to them, I can do something. I can pray and the spirit will leave the person. And I don't see the spirit and I don't talk to them....(Interview: PO-06-2, Kano, 23 July 2006).



Fig. 1. Malam Hassan, a popular Sufi healer, in his study at home in Kano, 23 July 2006 (photograph by E.P. Renne).



Yet this emphasis on prayer also involves the belief in spirits (*aljenu*) as the source of illness and their removal as the source of cure, a belief that some Muslim reformers see as anti-Islamic. As a consequence of such criticism, Malam Hassan described an incident by which he asserted the legitimacy of his own perspective:

There was one man (a *malam*) who said he didn't believe in spirits, he preached to people and was waving a book. When he finished preaching, the spirits took it and brought it to our *malam* who is a believer in spirits [Sufi]. And he called the *malam* and showed him the book. The *malam* said, "I don't know how you got the book, I never gave it to him and I never told anyone about it." I told the man that it was the spirits who brought it because he didn't believe in them (Interview: PO-06-2, Kano, 23 July 2006).

Nonetheless, while some Muslim scholars may not believe in spirits, they may believe in Prophetic medicine as the best protection against disease. One *malam* teaching in an Islamiyya school in Zaria City explained this position, referring specifically to the oral polio vaccine:

Most the Islamiyya *malamai* are still opposed, a few agree but not many. The reason they disagree is that they still suspect [that there is] something in the vaccine. I am doing something for the children—prayers—so that they don't need the polio vaccine (Interview: PO-07-14, Zaria, 22 August 2007).

His rejection of the oral polio vaccine as something contaminated and unsafe is related to Abdullahi's dan Fodio's insistence that medical treatment be obtained from a knowledgeable and trustworthy sources—in particular from fellow Muslims.

While these views of prevention and treatment based on prayer follow aspects of Tukur's work and to some extent that of Abdullahi dan Fodio, other Muslim scholars are more inclined toward the work of Sheikh Muhammad Bello, with his belief in the power of God in cure as well as in the use of *materia medica*, which may include traditional Hausa, Islamic, and Western medicine, for example:

Let me start by saying that Islam is not against medicine and technological development, it actually supports it. Islam encourages Muslims to go into this research. God challenges the Muslim including the study of the moon, to study about themselves, God will ask

people to reflect on His creation and for themselves.... (Interview: PO-06-18, Kaduna, 20 July 2006).

The view that both Western medicines and readings from the *Qur'an* and *Hadith* were explained by one Muslim scholar in Zaria City:

There are some verses in the *Qur'an*, if you read them, you can be cured or feel better. You can use even trees, even if not mentioned in the *Qur'an* but they are allowed if they do not contain alcohol.... Any Western medicine that does not have alcohol is allowed.... You see [now] I don't go to a *boka* [traditional healer] but if I am sick I can take tablets.

However, this man noted that immunization differed from medicine, suggesting that whether Muslims should use vaccines is neither allowed nor forbidden, but rather depends on conditions:

All you are going to give, it must come from God, not from the wish of someone. It must come from God. For example, like polio [vaccine], is it allowed in Islam or is it not allowed? As I told you we don't have anything that talks about immunization in Islam and we can only beg God, that if it [polio] exists, it should not be much. [But if] you know there is something, you must do it because of the condition, even if that something is forbidden. But even that thing is forbidden in Islam, you will have to do it—if it will cause much harm. You have to do it even if it is forbidden to prevent this harm... Anything that is forbidden, as I said, it can be done if the condition warrants (Interview: PO-06-13, Zaria City, 1 August 2006).

In his view that “if there is something, you must do it because of the condition,” in other words, parents are justified in vaccinating their children against diseases which threaten harm. This opinion is supported by Hadith 39, which states, “Allah has pardoned me my people for [their] mistakes and [their] forgetfulness and for what they have done under duress” (An-Nawawi 1991).

Yet the ambiguous nature of vaccines, which are neither allowed nor forbidden, have led other Islamic scholars to question their use, as one scholar observed:

Immunization does not belong in Islam because Allah has given humans in their appropriate, best form. We have been created in the best of forms, in the best of constitutions—which is seen in the mental, spiritual, and physical composition of man. They are made of many systems, including the immune system. Nature is so kind, it has endowed man with so many things. From the medical point of view, if you take medicine

that isn't necessary it may disturb the chemical composition of your body (Interview: PO-06-18, Kaduna, 20 July 2006).<sup>3</sup>

At the same time, this man notes that there are different opinions on the safety of vaccines. Some vaccines—over time—have proven to be effective while the safety of others is questioned:

...If you take something internally that is poisonous, it is sinful. But if something has been tested over the years and it has been effective, there is no prohibition. Traditional Hausa medicine is ok, provided the content is permissible. *There could be different opinions, you cannot categorically say.* Opinions are mainly by analogy, for instance the *Qur'ān* says we have created man in the best of forms.<sup>4</sup> If this is true, then someone who believes in the word of God, as stated in the *Qur'ān*, don't put yourself in harm's way. There are some scientific studies that cast doubt on the safety of vaccines (Interview: PO-06-18, Kaduna, 20 July 2006; my italics).

This man's doubt about the safety of vaccines reflects new concerns about the consequences of vaccinating small children, based on his knowledge of controversies in the West over the vaccines and autism (Colgrove 2006; Harris 2007a,b). As with some parents of autistic children in the US, for example, some Hausa parents question the safety of vaccines, which are seen as possibly introducing a hazardous substance into infant bodies.<sup>5</sup> When asked to compare people's cooperation with the smallpox eradication campaign in the late 1960s with the resistance exhibited during the polio eradication initiative, this man responded, "We are wiser now." What he means is that people have become aware of debates in the West over the possible risks of vaccines which, for them, may exceed the benefits associated with immunization. These "different opinions" about the safety of the oral polio vaccine also appear to have influenced how some have come to interpret routine immunization for other diseases, in general, and immunization using needles (*allura*), in particular.

### **Immunization and the Meaning of *Allura***

The Hausa term for immunization, *allura rigakafin*, literally means the "needle of prevention" and refers to both vaccines administered orally and by injection.<sup>6</sup> The word, *allura*, is also used

to refer to all injected medicines for cure—as in *maganin allura*—as opposed to *maganin ruwa* (liquid medicines) or *kwayoyi* (tablets), which are taken orally. The term for vaccination—*allura rigakafin*—thus distinguishes injectible and oral vaccines from *maganin allura*, injections for cure. This association of vaccination with needles/with injections has had other ramifications. While getting an injection has been considered a preferred form of treatment, poorly administered or inappropriately given injections may cause infections or extensive pain and paralysis (Wall 1988:280-1; Wyatt 1992). Indeed, intramuscular injections given to children with asymptomatic cases of polio increase the risk of paralysis (Hull 2004:696; Wyatt 1984). Thus, the term, *allura*, may be assessed differently, depending on circumstances and predispositions. In spite of these perceived dangers, many people continue to insist on injections as the most efficacious treatment for certain conditions. One Zaria City woman expressed a common assessment of *allura* as medicine when she noted that, “When children are given injections and they have a fever and rashes on their bodies, they will be cured immediately” (Interview: PO-07-3a, Zaria City, 29 June 2007).

However, there appears to be some reassessment of the efficacy and safety of injections, particularly when used for immunization, which is expressed in terms of paralysis. For example, during a National Immunization Day exercise in Zamfara State in January 2007, parents agreed to let their children receive drops of polio vaccine but refused to allow their children to be given Hepatitis B injections on the grounds that it would cause paralysis (Olayinka 2007). Secondly, in an interview conducted in July 2006 with a well-known traditional healer (*boka*) working in the village of Solanke, just north of Zaria, he said that it was not spirits but rather the injections given by Western-trained medical doctors which caused paralysis. While this man’s response suggests that he is opposed to Western medicine more generally for professional reasons, his

point about Western medicine (*maganin boko*) implies that some people have experienced paralysis after having received injections. Finally, in a television spot that was developed to promote the eradication of polio in Nigeria, the narrator who was affected by paralytic polio goes to his mother to ask what happened and how they treated the disease:

She said, “You had fever and you were taken to the hospital for an injection. You had an injection and the next day your legs turned limp....Some others thought that the injection affected your nerves..... We went to the hospital—in Kaduna, Jos” (Sule nd).

While the narrator goes on to interview a faculty member of Bayero University in Kano as well as traditional healers in Ningi, in Bauchi State, about the causes of treatment of polio, the connection made by his mother about being “taken to the hospital for an injection” and the subsequent paralysis of his legs may reinforce local thinking about this connection and about hospital worker malpractice (see also Nwuga and Odunowa 1978). These examples and others suggest that the belief that injections may cause paralysis is fairly widespread. Precisely why this connection is being made may be explained when considered from the experiences of those who have been paralyzed and the healers who have treated them.

In the first place, some people attributed the fear of injections and their association with paralysis to poorly trained health workers who didn’t know how to properly administer injections, leading to infections and possible nerve damage at the site of the injection (Fry 1965; Wall 1988). According to one pediatrician, people often preferred to go to chemists and private clinics to received treatment—for example, getting injections of chloroquine or Fansidar® for malaria. If the injection site and/or needle/syringe are not sterile or if a vein or nerve is damaged by a needle, infections resulting in boils or abscesses forming near the injection site or temporary paralysis may result. One traditional bone-setter (*mai dori*) in Likoro, a village northeast of Zaria, said that he had treated cases of paralysis caused by injections. According to this man,

when injections were improperly administered, the needle inadvertently severed a vein, which the bone-setter could repair with medicine so that the vein would grow back (Interview: PO-07-6, Likoro, 29 July 2007). This explanation parallels Western medical explanations of temporary paralysis caused by injections which may damage a nerve. However, even trained medical staff may incorrectly give injections, as was the case of a young boy in Zaria City whose leg was temporarily paralyzed (possibly due to some sort of nerve damage). After having an x-ray taken and not finding any fractures, a teaching hospital staff member gave the boy an injection in his paralyzed leg, a procedure counter-indicated in medical textbooks (Parry 2004).

It is not surprising, then, that upon hearing of others' experiences, parents would be wary of their children receiving injections for immunization and even for medical treatment. Yet many Hausa people use Western medicines, including injections, and not all traditional healers are opposed to their use. Rather, they see them as suitable for certain conditions, while not appropriate for others. According to Mallam Hassan in Kano, *allura* were useful as medicine and not counter to Islamic belief. However, according to him there were three conditions for which injections were ineffectual. These conditions had to do with spiritual disorders including: 1) illnesses, including paralysis, caused by the presence of a spirit (*aljenu*) affecting a person because of some transgression or other reason, 2) by someone commissioning a *boka* to send a spirit to harm someone; or 3) by witchcraft in general. For him, the reasons for connection between *allura* and paralysis were, as he put it, "beyond my knowledge." Yet he believed that paralysis was caused by spirits and that getting an injection in such a state was not only inefficacious but also dangerous (Interview: PO-07-4, Kano, 28 July 07). The logic of this cultural belief may be seen the case of a woman who was paralyzed after experiencing a stroke (*shan yewar jiki*) in June 2007.

The woman had been visiting relatives in Anchau, a village east of Zaria, when she fainted and fell down. When she revived, her right side was completely paralyzed. Family members brought her back to her house in Zaria City and her husband consulted a traditional healer (*boka*) from Ikara (another village outside of Zaria) for treatment. The healer told her not to use *magani boko* (Western medicine) and under no circumstances was she to get an injection. He treated her using prayer and *rubutu*<sup>7</sup> to bring down her *hawan jini* (high blood pressure); later, she remained in her room and women burnt incense for her (to keep spirits away). According to this way of thinking, it was high blood pressure which caused the stroke but it was a spirit which had caused the paralysis.<sup>8</sup> While the woman's husband eventually agreed to her being treated by an ABUTH cardiologist, it was with the understanding that no injections would be given. For as the Kano healer had explained, "If an *aljenu* 'touches' a person, it is not good for a person to get an injection, because it increases the disease....[since] the spirits do not like injections."

*Allura* (injections) have become a symbol of Western biomedicine, both of their efficacy—they cure diseases quickly—and of their dangers—they can cause paralysis. Indeed, if injections are poorly administered, injection sites may become infected or limbs may be temporarily paralyzed. These side effects have reinforced some Muslim parents' doubts about the benefits of certain types of Western medicine and of *allura rigakafin*, immunization, in particular.

### **Resistance to Immunization (*Allura rigakafin*)**

Vaccination was commenced in Zaria Town with 200 children. It was not popular.  
---*Gazetteer of Zaria Province*, 1919 (Arnett 1920:40)

Even before the implementation of the Polio Eradication Initiative, there has been resistance to immunization campaigns in Zaria and in neighboring local government areas. During the colonial period, such resistance reflected fear of European doctors and resentment toward colonial rule with its unequal relations of power (Vaughan 1991).<sup>9</sup> In a more recent example, this fear was expressed in terms of “family planning,” as one ABUTH pediatrician described the response of some villagers to the Expanded Programme on Immunization (EPI) in the early 1990s:

Distrust of anti-fertility medicine, [that it was incorporated] in vaccines was much earlier. Before 1996, there was resistance to these drugs. For example, in 1991-1992 we went to one village in Zaria and we were stoned while we were attempting to do routine immunization. They said, “You are bringing infertility to our women.” All in all, from the early 1990s, there was this resistance to immunization. I talked to the Emir of Zaria and Abubakar Gumi.<sup>10</sup> I pleaded with him [Gumi] that he should say it in the radio broadcast—and he did say it—that the vaccine is safe, that his grandchildren have taken it. But even then, people did not accept it (Interview: PO-06-6b, Zaria, 4 Aug 2006).

In another example in March 1995, “a Rotary Club immunization project in Zaria City... was abandoned after the second visit because parents refused to bring their children out. They complained of boils around the site of immunization and of a loss of hearing (Musah, p.c.)” (Renne 1996:135). One ABUTH physician observed, that “A lot of people [in Zaria] don’t get the EPI vaccine now because they believe that family planning drugs, fertility control drugs, are incorporated in it” (Renne 1996:133). Thus, vaccines have suspected by some, but not all Zaria residents, as possibly dangerous for infants and children who are not experiencing health problems. Furthermore, even parents who want to have their children immunized may find it difficult to find vaccines available on continual basis.

This distrust of routine immunization, including beliefs about their being adulterated with contraceptive substances and misunderstanding about the number of doses needed, as well as government and health department mismanagement, including the use of outdated or mis-



administered vaccines or the unavailability of vaccines altogether,<sup>11</sup> help to explain extremely low levels of immunization in Zaria City. These low levels have been documented in several studies conducted by students in the ABU Department of Community Medicine (Attah 2003; Bako 1978; Daiyabu 1977; Ekpo 1975/1976). In one study conducted in January 2002, Attah (2003:49) found that for 339 children under five years in the Zaria Local Government Area, only 15% had a full course of four doses of OPV, while 5% had had one dose, 14% had had two doses, and 59% had had three doses. Seven per cent of children had had no immunization at all.<sup>12</sup> Attah also collected data from the Kaduna State Ministry of Health for routine immunization for all local government areas including Zaria from 1991-2000, none of which were over 50% coverage except for BCG (Table 4.1). More recent figures on routine immunization coverage in Kaduna State in 2007 continue to show low levels of coverage (Table 4.2). Furthermore, Zaria Local Government had the lowest levels of both DPT<sub>3</sub> and OPV<sub>3</sub> coverage (14%) in the entire state for the period from January-June 2007 (WHO-Kaduna 2007).<sup>13</sup> One medical doctor, on hearing of the low levels of routine immunization in Zaria Local Government and in Kaduna State attributed these recent figures to a backlash against the focus on polio immunization during the Polio Eradication Initiative. However, this view was countered by the father of three children who died during the recent measles outbreak that occurred in Zaria City in November-December 2007 (Audu 2007b):

Anyone that says Zaria residents reject immunisation is only saying something that is far from the truth. What we rejected was the Polio immunisation because we saw no reason why they were disturbing us with Polio Immunisation when they did not effectively handle killer diseases like measles. Our point of contention is that, it is only on rare occasions that one comes across death caused by Polio or even a victim of it, then why the prominence?. This is what we reject, not immunisation generally (Sa'idu and Ibrahim 2007).

Furthermore, according to him, what they feared was not immunization per se but rather it was

injections:

Some of our people believe that injection deteriorates the condition of a child suffering from measles. This is why most of the children infected were not taken to hospitals. They remain at home either calling on traditional healers or buying orthodox medicines from chemist shops (Sa'idu and Ibrahim 2007).<sup>14</sup>

The distrust that Zaria City parents felt toward government health officials was exacerbated by one official was cited as blaming parents for not getting their children immunized because they were “attaching religious sentiments to it,” i.e., Muslims parents not allowing immunization teams into their homes (Babadoko 2007). While this official later denied it (Sa'idu and Ibrahim 2007), his remark and retraction underscore the complexity of social interactions between Muslim parents and health officials in the North.

### **Politics and Islamic Interpretations of Immunization**

Despite this health official's insinuation that Muslim parents in Northern Nigeria refuse to vaccinate their children, many prominent Muslim political, religious, and educational leaders in Northern Nigeria—including the Emir of Zaria, Alhaji Shehu Idris, as well as the Emir of Kano, Alhaji Ado Bayero, the late Sultan of Sokoto—Muhammadu Maccido, Professor Umaru Shehu (the former WHO Director for East and Southern Africa and emeritus professor of community medicine), the current President of Nigeria, Umaru Yar'Adua, and the former Minister of Health, the former Senate majority leader, Dr. Dalhatu Tafida (Okpani 2003), have all supported childhood immunization and have promoted the implementation of the PEI in various ways. Both the Emir of Zaria and the Emir of Kano have participated in National Immunization Days, while the late Sultan of Sokoto issued a statement confirming the safety of the oral polio vaccine (Anonymous 2004) and allowing a photograph of him administering oral polio vaccine (OPV) to be used on a UNICEF-sponsored calendar (Fig. 2).



Fig. 2. The late Sultan of Sokoto, Alhaji (Dr.) Muhammadu Maccido, CFR, depicted administering polio vaccine drops to a child, on a 2005 calendar distributed by UNICEF and the Nigerian Government.

President Yar'Adua fully supports Immunization Plus Days and as Governor of Katsina State, he accompanied immunization teams providing polio immunization in the state on occasion. In July 2007, the Secretary General of Jama'atu Nasril Islam, the umbrella organization for Muslims in Nigeria, announced that the JNI fully supported polio eradication efforts in Nigeria (Audu 2007a).

Professor Emeritus Umaru Shehu, who was the first chairman of the National Programme on Immunization and who vigorously supported the PEI, participated in tests of the OPV in South Africa during the 2003-2004 Kano State boycott of the PEI, where it was found that the OPV was safe. In an interview published in the *Daily Trust* (Bego 2007), Professor Umaru noted that:

...In any reasonable society, when such questions arise (on safety of OPV), you look for the people who are knowledgeable and best placed to give an opinion. For one reason or the other, people tend to look beyond Nigeria (for expert opinion). One of the initial problems we had was that people were looking to the internet where they download archaic information that people contract other diseases when they were immunized.

In his view, this use of material from the internet was irresponsible and often self-interested. He also made light of claims that the West was using the polio vaccine to reduce the fertility of Muslim populations: “If America wants to do that they will use polio to fight the Muslim World? They are still fighting the Muslim World. Polio or no polio, they have the atomic bomb...” For him, “There is no excuse for any child to be paralyzed as a result of polio in Nigeria today” (Bego 2007).

These men’s support for childhood immunization and the PEI reflects their sincere belief in the safety of these vaccines which, in the face of endemic wild poliovirus and epidemics of measles in Northern Nigeria, they see as critical for saving children’s lives and for their well-being. Yet even the advice of these people may be ignored, in part because of a lack of credibility from the perspective of those living in poor housing, without adequate sanitation or clean water, with low-paying jobs, and with malnourished children.<sup>15</sup> For ordinary people (the *talakawa*), the preoccupation of “big people” (*manya manya*) with immunization may be important to them and may strengthen their credibility with Western donors, but does not help the *talakawa* in their day-to-day travails—providing sufficient food, clothing, medication, and housing for their families. Furthermore, some contrast the ideal of pious religious leaders’ ascetic living, exemplified by the 19<sup>th</sup> century Sheikh dan Fodio, who “throughout his life had lived simply, with only a few clothes and with plain food and accommodation...” (Last 1967:9), with the luxurious residences, fleets of Mercedes Benz, and frequent overseas travel of some present-day religious and political leaders. The stark inequality in their mode of living fosters

both resentment against those who have access to the pleasures of Western modernity and the rejection of their advice and lifestyles. Even for those who have accepted immunization including the PEI, their displeasure with the increasing disparities in wealth and well-being has led some to question the religious values of their leaders. As one man from a village outside of Zaria explained, “People think government and even Muslim scholars, they have no fear of God in their minds... Both the *malamai* and the big people now, they are not honest. They [have] spoiled the world” (Interview: PO-06-15, Yakasai, 3 August 2006).<sup>16</sup> By following Muslim precepts as outlined by Sheikh Uthman dan Fodio and his son, Muhammad Bello, and for some, more recent reformers such as Sheikh Abubakar Gumi (Umar 1993), they hope to rebuild their sense of a moral community.

### *Religion and international politics*

This rebuilding of the world often entails a rejection of Western ways and, at times, an intolerance of other points of view, as one ABUTH physician observed:

The political [situation] has become much more cloudy. Before people were more tolerant, one could discuss these issues in a public forum. As it is now, because of this animosity, if a Muslim is saying something against a *malam*, he is not a good Muslim. Or if a Christian says something it is not to be accepted (Interview: PO-06-6b, Zaria, 4 Aug 2006).

However, this rejection is also fueled by outside events and the fears that they have engendered. The conjunction of the implementation of national population policies in the late 1980s with pressures to implement the Expanded Programme on Immunization in Nigeria have led some to question the sincerity of Western-supported health programs, as one ABU Islamic legal scholar explained:

You know about 40 years back America, Britain and other European nations were respected. Because I, too, I remember when I was a boy, I used to hear about President

Kennedy everyday on the radio and this President Kennedy, he was acceptable among our people. After Kennedy, when he was shot, people were very, very sad—they were grieved.... But towards this Iranian Revolution and from what we hear from Iran, we hear from Iran all over the world, pamphlets were circulating asking Muslims to be alert that America and Britain were all out to destroy Muslims. Going through some of these pamphlets...there was declassified information that actually stated that the Muslim population was growing, the American population was diminishing. They targeted the youth deficit because [American] women were no longer interested in producing children. According to some highlights in the security memorandum,<sup>17</sup> if this was allowed to go unchecked, America and other nations would be overrun by the Muslim countries....So the best way [to address this problem] is to check the population (Interview: PO-06-11, Zaria, 30 July 2006).

This distrust of the motives of the West, supported by a range of publicly available materials—international newspaper and journal articles, radio broadcasts, and the Worldwide Web, has been reinforced by the continuing American presence in the Middle East. As this man noted, “Because [of this] most of the places I attend, Muslims are always against the war—this had made them against anything coming from the US.” This rejection of “anything from the US” has carried over into questioning the safety of Western biomedicine in general as Last (2005:561) has noted:

For some, it was distrust of the motivations of those promoting a Western health intervention or product, and the belief that ‘... Christian countries’ concern to export biomedicine to all parts of Africa is...not as a charitable gesture but as self-interested and dangerous.’

Relying on traditional Hausa or Islamic medicine provides what is considered to be a safer health option. While distrust of biomedicine was not the primary impetus for the establishment of a Muslim Specialist Hospital in Zaria—it was founded to address the problems of mis-treatment and/neglect of Muslim patients by Christian physicians, it provides biomedical treatment but only by Muslim medical doctors.

Another consequence of Muslim distrust of Western-sponsored medical interventions and of those associated with such interventions has been suspicions about immunization (*allura rigakafin*)—often expressed in terms of fears of injections—and about the polio eradication

initiative. According to one Muslim scholar, if one interprets the Hadith 11 properly, (“Leave that which makes you doubt for that which does not make you doubt”), then the *malamai* teaching married women and children in Islamiyya schools, from their perspective, have a duty “to protect their subjects” (Interview: PO-06-18, Kaduna, 20 July 2006), by advising them not to vaccinate their children.

## **Conclusion**

As this paper has attempted to show, there is not a monolithic Islamic view on immunization in Northern Nigeria.<sup>18</sup> Rather, depending on one’s education and social class, as well as particular readings and understandings of *The Qur’ān* and the *Hadith*, parents have or have not had their children immunized against polio and other childhood diseases. Furthermore, the distinctive histories of those living in Northern Nigeria and cultural interpretations of different forms of medical practice—Hausa, Islamic, Western—have influenced the different views of Muslim men and women about the politics of immunization and international conflict; about government responsibility for primary health care—including the provision of basic services such as clean water and sanitation; and about inequalities in wealth, education, and living standards.

One striking aspect of these varied views of Northern Nigerian Muslims on immunization is the enduring influence of the writings of the early nineteenth century jihad scholars. For example, the continuing importance of Muhammad Bello’s ideal vision of medicine as providing for the well-being of the entire Muslim community is echoed in the comments of the elderly man who decried the greed of the politicians and Islamic scholars who have “spoiled the world” by only thinking of themselves. Then, the importance of prayer—discussed by Muhammad Tukur and Muhammad Bello—as well as the influence of spirits, as described by Uthman dan Fodio and

Muhammad Bello in their writings, continue to influence the thinking of Sufi *malamai* and Hausa traditional healers, whose amulets include portions of the Qur'an and may be used to protect against malicious spirits (Wall 1988; see also Marty 1914). Furthermore, Abdullahi dan Fodio's insistence that Muslims' health is best attended to by fellow Muslims may be seen in the establishment of the Muslim Specialist Hospital and in the preference for vaccines made in Islamic countries.

Alternately, Muhammad Bello's open-minded acceptance of Western sources of medical knowledge and practice is evident in the remarks of Professor Shehu on the value of vaccines, although his comment that one should "look for the people who are knowledgeable and best placed to give an opinion" about a disease and its cure parallels the words of Abdullahi dan Fodio written a century earlier. In Northern Nigeria, there is a long religious history sustaining these different views and concerns.

## Endnotes

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<sup>1</sup> See Martin (1994) for a discussion of American views the workings of the immune system.

<sup>2</sup> Last (1967:5) has noted that the belief in *jinn-aljenu* existed before the jihad and continued afterwards, reinforced by their mention in *The Hadith* and by the writings of Sheikh Uthman dan Fodio himself.

<sup>3</sup> This man and several others mentioned the idea that there were multiple causes such as good nutrition and improved hygiene which led to decreases in disease in the West, rather than the use of specific medicines such as antibiotics and vaccines, an argument made popular by René Dubos (1959).

<sup>4</sup> He is referring to Sura 95, 4.

<sup>5</sup> In a recent trial that was held in Washington DC in June 2007, a group of US parents of autistic children filed a claim for damages against the US Government for allowing vaccines containing thimerosal, a preservative that contains ethyl mercury, to be marketed, although this preservative is longer used (Harris 2007a). The parents lost their case and major studies have found no link between vaccine use and autism, yet some parents continue to question the safety of vaccines and refuse to obtain immunizations for their children (Harris 2007b). For a more general discussion



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of parental immunization refusal, see Blume (2006) and Fredrickson et al. (2004); see Veenman and Jansma (1980) for an earlier example from the Netherlands.

<sup>6</sup> The word, *allura*, means needle in Hausa and refers to needles used with syringes, as well as to needles used for sewing. It also has magical uses, as in the term *allura harbin*, whereby supernatural needles are sent to harm someone (Newman and Newman 1979:4).

<sup>7</sup> *Rubutu* consists of writing portion of the Qur'an on a writing board, then washing off the ink with water; this mixture is then drunk by the patient (Soares 2005; Wall 1988).

<sup>8</sup> The professor-cardiologist who treated her explained that she had suffered a minor stroke which had temporarily reduced blood circulation in the brain, causing temporary paralysis which could be ameliorated through physical therapy.

<sup>9</sup> The site of one of the early colonial clinics in Zaria City is called *Babban Dodo*, big masquerade or spirit, and refers to local views of colonial medical officials as frightening, powerful beings.

<sup>10</sup> Alhaji Abubakar Gumi, the founder of the reformist Islamic movement known as Izala, made regular radio and later television addresses (*tafsir*) on *The Qur'an* and the *Hadith*. As these two texts were seen as constituting the basis of proper Muslim conduct, Izala leaders sponsored special classes for married women in the 1970s, which continue to be popular in Zaria.

<sup>11</sup> In their 2005 study of routine immunization services in Nigeria, the consulting firm Feildon Battersby Analysts (2005:30) examined a 2003 survey carried out by the NPI which found that in 30 out of 37 states, that "vaccine not available," was the most often cited reason for not immunizing one's children, followed by "place of immunization too far" (23 out of 37 states), and parents being "unaware of the need for immunization" (20 out of 37 states).

<sup>12</sup> However, these figures actually compared favorably with the Nigerian Demographic and Health Survey 2003 data that found 40.5% of 356 children in northwestern Nigeria had no immunization prior to its survey (NPC 2004:130; see also Bonu et al. 2004).

<sup>13</sup> It is possible that this figures reflect poor reporting practices; also some children may have been vaccinated through the ABUTH and these figures may not have been merged.

<sup>14</sup> Etkin et al. (1990:921) describe treatment of measles using traditional medicine and also how the concepts of bitterness and coolness frame ideas about appropriate pharmaceutical treatments.

<sup>15</sup> Colgrove (2006:15) notes a similar situation in the US in the 1950s, where vaccination coverage was lowest in areas where poverty prevailed. Subsequently, US health officials focused on "improving the health care delivery system to make it more equitable and accessible." See Colgrove (2006) for a detailed discussion of the uses of coercion (specifically, mandatory child immunization for public school attendance) and persuasion (e.g., publicity campaigns), which were used to increase immunization levels in the US.

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<sup>16</sup> In another example (reported from Kano; Walker 2007), one Muslim cleric who formerly rejected the PEI but who has come to accept it noted with respect to the outbreak of circulating vaccine-derived poliovirus (cVDPV) in Kano that “the state government was mostly responsible for the problems it faced. ‘We should thank our foreign friends for coming to help,’ he said. ‘But we should ask, where is our government in all this? If this came about because of unsanitary conditions, isn't that the government’s responsibility?’”

<sup>17</sup> He is referring to the United States National Security Council Memorandum ( US NSSM 200) as evidence of this way of thinking (see USAID 1994).

<sup>18</sup> All four of the countries (or areas) of the world where wild polio virus remains endemic are predominantly Muslim and health officials have called for the Gulf States to help fund the continuing effort to eradicate polio worldwide (McNeil 2005). Yet, it is important to note that many Islamic nations have eradicated polio and have strong primary health care and immunization programs.