Quality of vaccination services and social demand for vaccinations in Africa and Asia

P.H. Streefland,1 A.M.R. Chowdhury,2 & P. Ramos-Jimenez3

For immunization to be effective in the long run as a major global disease control intervention it is important to provide good quality vaccination services. Studies carried out in three countries in Asia (Bangladesh, India, and the Philippines) and two countries in Africa (Ethiopia and Malawi), and reported on in this article, document the fact that parents are willing to invest considerable effort in having their children vaccinated; however, there are a number of serious shortcomings in the quality of the routine vaccination services and strains are apparent at the interface between the vaccination providers and the users. These shortcomings are detracting from the sustainability of routine vaccination programmes and are promoting the growth of pools of nonimmunized and partially immunized children. To safeguard the continued operation and to enhance the coverage of routine vaccination programmes it is crucial that these difficulties be addressed.

Introduction

The induction of an immune response to infectious diseases by vaccination has become a widely applied and accepted public health intervention (1, 2). For immunization to be effective as a long-term global childhood disease control strategy it is essential that parents continue to present their children for vaccination. Where childhood vaccination proceeds on the basis of parental consent, as in most societies, it is essential that parents trust the quality of the service on offer. Recent studies in Africa and Asia have shown that mothers present their children for vaccination with a view to preventing illness, boosting their general health, and/or reducing the severity of possible illness in the future. The decision to attend vaccination sessions is also influenced by the quality of services as perceived and experienced.

An international comparative research project a was initiated in Africa, Asia, Europe, and the USA in 1994 to improve the coverage and sustainability of vaccination programmes through a better understanding of their social and cultural aspects. The work was carried out by national research teams in Bangladesh, Ethiopia, India, Malawi, and the Philippines, and three transnational investigations were conducted on the following topics:
– immunization and the state;
– global programming and technology development;
– social demand for vaccinations in relation to the quality of vaccination services.

Each of the country studies developed its own protocol, but there were strong similarities between the studies in terms of their objectives and methodology. The instruments outlined below were used to strengthen coherence between studies.

• Researchers from all the teams attended a course on medical anthropology and another on the analysis of qualitative data, and participated in a monitoring workshop that covered sampling and data collection methods.

• A master checklist of research questions and indicators was developed so that all the country studies included a framework of similar questions in addition to those pertinent to conditions in particular countries.

• Several countries received technical support for improving the quality of data collection and analysis.

The results of the studies in Africa and Asia reported in the present paper indicate that the quality of vaccination services still leaves much to be desired. The paper also provides information on parents’ perceptions and on the effects of negative perceptions on the acceptance of vaccination. A considerable amount of research has been done on the quality of health care and family spacing services, and various indicators have been suggested (3–5). The framework used below was adapted for the analysis of vaccination services. The following broad aspects of the provision of vaccination were studied in order to assess technical quality:

1 Royal Tropical Institute, P.O. Box 95001, 1090 HA Amsterdam, Netherlands.
2 Research and Evaluation Division, Bangladesh Rural Advancement Committee (BRAC), Dhaka, Bangladesh.
3 Social Development Research Centre, de la Salle University, Manila, Philippines.

Ref. No. 0025

The Social Science and Immunization project is financed by the Dutch and Danish Ministries of Foreign Affairs.
technical competence of health workers directly involved in giving vaccinations;
- information provided by health workers to clients;
- vaccine administration;
- follow-up and continuity mechanisms;
- linkages and coordination between various providers in particular areas.

The country studies looked into the perceptions and experiences of users, usually mothers, concerning the quality of care in vaccination delivery, with regard to:
- technical competence;
- information provided;
- access to services;
- interpersonal relations between clients and vaccinators;
- side-effects.

The researchers in the country studies collected quantitative information, particularly coverage data, by studying records and sometimes making home visits. They obtained qualitative data by observing vaccination sessions, conducting in-depth and semi-structured interviews with parents, health workers and key informants, and organizing focus group discussions.

The results of each of the country studies pertaining to the transnational theme of social demand in relation to quality of vaccination services were reported by using centrally developed indicators. A synthesis was then performed to bring out issues requiring the attention of policy-makers and programme managers. The results from the countries were combined in matrices relating to specific research questions. Using the matrices and the country reports, similarities and differences between the countries were looked for, and descriptive statements and conclusions were formulated.

**Country studies**

**Bangladesh**

In Bangladesh the main field study was conducted in Kishoreganj district, which was selected because of its very low immunization coverage as revealed by a national survey. Within this district, Bhairab thana was selected for detailed study. Most of this area is low-lying and there are communication problems in the rainy season. The study focused on Bhairab town and several villages. Two rural unions and two urban wards were selected, one of each with high immunization coverage and one of each with low coverage. Subsequently, in the four selected areas, a further division was made on the basis of coverage as reported by health workers, so that there were four urban and four rural study areas. A total of 100 children below 2 years of age were selected in each by snowball sampling for a coverage census. Subsamples of mothers of fully, partially and nonimmunized children were drawn for in-depth study, and 97 mothers were interviewed. Nine vaccination sessions were observed, and twelve health workers and six immunization supervisors/managers were interviewed. Interviews were also conducted with thirteen village leaders, seven unqualified biomedical practitioners and one spiritual healer.

**Ethiopia**

In Ethiopia the Gurage Zone, and in particular the district of Sodo, where low coverage was reported, and that of Cheha, where coverage was reported to be high, were selected for field research. The present paper concentrates on the results from Sodo, where the data collection methods included the following:
- a survey among 222 mothers of young children;
- 17 in-depth interviews and 6 focus group discussions with mothers of fully vaccinated and unvaccinated children;
- 11 interviews with health workers, 4 with EPI managers, 5 with community leaders, and 2 with traditional healers;
- 22 exit interviews at vaccination sessions;
- 8 observations at static health care centres and 5 at outreach health care centres.

**India**

In India the field study initially focused on the district of Surat, Gujarat State, and on the hilly district of Pauri Gharwal, Uttar Pradesh. Subsequently Kanpur Dehat, a lowland district in Uttar Pradesh with low reported coverage, was added, as was the district of Trivandrum in Kerala, where coverage was high. On the basis of information from official reports and key informants in each district, areas of high and low coverage were selected in which primary health centres and subcentres, and their catchment areas and villages with high and low reported coverage, were studied. Data were collected using the following approaches:
- a census of 665 households to identify those with children aged 0–2 years;
- 205 structured interviews and 87 ethnographic interviews with mothers;
- 25 in-depth interviews with older women;
- 23 in-depth interviews with village elders;
- structured interviews with 9 male and 53 female basic health workers and 10 trainer/educators;
- 41 ethnographic interviews with female health workers;
- observations on 50 vaccination sessions;
- 34 interviews relating to cases of vaccine-preventable diseases.

The present paper focuses on data from the districts in Uttar Pradesh.

**Malawi**

The Malawi field study was carried out in the districts of Ntichisi, which had the country’s lowest reported coverage, and Chitipa, with the highest reported coverage. In each of these districts a subdistrict with high coverage and one with low coverage were
selected. The present paper focuses on the results from the subdistricts Chintembwe and Malomo in Nitichisi. Data collection in Nitichisi included the following:
- 20 focus group discussions with mothers;
- 100 in-depth interviews with mothers;
- 10 interviews with health workers;
- 293 exit interviews at vaccination sessions in Chintembwe and 504 in Malomo;
- 30 observations of vaccination sessions at static and outreach health care centres in Chintembwe and 50 in Malomo.

The Philippines

Field research in the Philippines focused on the following regions: Mindanao, the Visayas, Luzon, and the National Capital. Sampling included rural and urban areas with high and low reported immunization coverage, and led to the selection of 13 study areas. Another three areas were added in which national immunization days were studied. In addition to the study of literature and documents, the data collection methods included the following:
- a survey of 2008 mothers with preschool children aged 0–6 years;
- 24 focus group discussions with older mothers, mothers of fully immunized children, and mothers of partially immunized children;
- 61 interviews with key informants.

The quality of care was investigated by focusing on three health centres in high-coverage areas and on four in areas of low coverage: 10 expanded programme on immunization (EPI) managers and 66 health workers were interviewed, and exit interviews were conducted with 320 clients. In the seven health centres a careful inventory was made of partially immunized children; mothers of fully immunized children, and mothers aged 0–6 years;

Results

Organization of vaccination provision

Vaccination provision in each country was integrated with other health services. Thus the health workers who vaccinated and the static and outreach health centres where they worked were also involved in other forms of health care. In all five countries, vaccinations were given in the two ways outlined below.

- Vaccination was a routine activity, the frequency of which ranged from 4 days a week at static facilities to weekly or monthly at outreach centres, where it was essential to give mothers timely and accurate information as to when sessions were to be held. Abrupt stoppages or cancellations of sessions sometimes occurred.
- Oral poliovirus vaccine was given to all children on national immunization days, which were well publicized in the media. Attendance was advocated by local and national politicians and by well-known celebrities from the arts and sport.

Waiting time and punctuality

In Bangladesh, vaccination sessions invariably started later than the scheduled time and finished earlier than projected. The waiting time was usually around 10 minutes.

In Ethiopia the mothers attending one outreach site expected the health workers to be late, and the health workers expected the same of the mothers. Consequently, the sessions started late. Since the health workers left at the scheduled time, the sessions were too short. It was observed that shortage of time led one health worker to vaccinate children with needles that were still hot following sterilization. Another was seen to vaccinate several children with the same needle; this possibly happened wholly or partly for the same reason.

In Malawi, two-thirds of the observed sessions began on time. However, clients had to wait for up to 3 hours.

Availability of supplies

In Bangladesh, a shortage of diphtheria–tetanus–pertussis (DTP) vaccine was reported at two of eight sessions. Delays sometimes occurred in sending vaccines from the central depots and distribution centres. In both Bangladesh and India the supply of certain vaccines was sometimes accorded a lower priority than that of poliovirus vaccine if a national immunization day was about to be held.

In Malawi, BCG was out of stock at seven of the thirty observed sessions, and measles and tetanus toxoid vaccines were unavailable at two and three sessions, respectively.

Routine sessions were sometimes postponed in order to allow national immunization days to succeed: thus in two areas of Ethiopia, fixed centres did not have any sessions for 1 month and outreach centres had none for 3 months because the staff were occupied with a national immunization day.

A shortage of EPI cards was common in most countries. In Bangladesh, the supply of the EPI children’s card had been stopped for a long period and health workers had been using the very different tetanus toxoid cards instead.

In the Philippines, two of seven centres had no needles, and four of seven had no syringes; supplies were better in lower coverage areas than in higher coverage areas.

In Pauri Gharwal, India, health workers said they found it difficult to maintain registers because they received only a quarter or less of the planned number. Monthly reporting was made difficult by the inadequate supply of stationery, which health workers often had to buy themselves.

Perceived technical competence of vaccinators

Mothers defined competence multidimensionally, taking into account technical ability, social skills and sometimes socially and culturally important personal characteristics. In general the country data showed
that mothers assessed the technical competence of vaccinators positively. Technical competence was viewed negatively if pain was inflicted, if bleeding, swelling or abscesses occurred, or if vaccinators broke needles or used old ones. Mothers’ opinions were influenced by the comprehensibility of the advice they received and by the readiness of vaccinators to work long hours and appear on time at the designated places. Personal characteristics of the vaccinators, such as age, long years of reliable service, caste, social class, physical appearance and moral behaviour, were sometimes also important criteria.

Some Bangladeshi mothers expressed positive views about the technical competence of vaccinators, but others said they had no faith in the health workers’ training and their manner of giving injections. Views on technical competence were coloured by whether the vaccinators were known to the mothers and communities.

Mothers in Ethiopia expressed dissatisfaction with health workers who spent only short periods in outreach centres. These workers were considered by the mothers to be uninterested in their work.

In Malawi, mothers observed that some vaccinators did not seem to know how to inject properly, because blood oozed from the injection site and the injected area became swollen; some vaccinators were said to act “as if injecting a tree that felt no pain”; some merely nicked the children’s skin, whereas others injected very deeply. Mothers also gave a negative assessment of health workers who did not arrive on time at outreach clinics or would not work later than the scheduled finishing time in order to vaccinate all the children present.

In India, damaging side-effects were particularly important in the assessment of vaccinators. The evaluation of technical competence was also related to factors of importance in the social and cultural context: whether a vaccinator belonged to the staff of a static primary care facility, suggesting higher competence, or to “the field”, whether she was older or younger and came from a specific caste or a locally influential family; and whether she had an acceptable physical appearance and good moral standing.

**Availability of health education material**

Most fixed centres had some information, education and communication (IEC) material, but this was not always true of outreach centres. Posters were not used for health education in Bangladesh. Health workers at outreach centres in Bangladesh and India complained that they did not receive IEC material except in connection with national immunization days. Where such material was available in India it was not properly displayed or used for health education purposes. In the Philippines, health centres in low-coverage areas had more IEC material than those in high-coverage areas. Posters in most countries were usually written in the local languages, although in Malawi the English language was widely used.

**Process and content of health education**

Health workers seldom had time to provide vaccination-related information during sessions. Indeed, vaccination had apparently become such a routine matter that health workers often felt it unnecessary to provide detailed information. In Bangladesh the information provided was of a general nature and did not relate to specific diseases and vaccines. However, particularly in Ethiopia and Malawi, some health workers did provide useful information, especially if asked to do so. Information on side-effects was the most commonly provided. Mothers were advised not to bathe affected children and not to rub sore spots with oil or to apply hot-water bandages. In Pauri Gharwal, India, detailed information on side-effects was only given when a mother attended with her first child for vaccination. There was some confusion about nodule formation in respect of BCG vaccination. Only a few health workers asked mothers to return for vaccination if a nodule did not develop.

Information on contraindications was sometimes given. A Bangladeshi health worker said: “We do not vaccinate a child that has fever because if the condition of the child deteriorates further the parents will blame us”. In India most health workers were unable to define the contraindications to vaccination. They usually did not vaccinate if a child was unwell, as they feared further complications. In the Philippines, information on contraindications was given in about half the observed contacts.

Sometimes incorrect information was given. In Bangladesh a woman was advised by a health worker not to nurse her baby within half an hour after vaccination. When asked to explain, the health worker said: “When the vaccine enters the body there should not be any food in the stomach”. In Malawi, mothers said they had been told that a child should be vaccinated every 6 weeks, and that a child should start receiving vaccinations at the age of 6 months.

**Views on information provided**

Except in Bangladesh, mothers said that health workers were their main source of information about immunization. The information, which covered a range of relevant topics, was provided within the context of general health education and normally not during vaccination sessions. In Bangladesh, mothers were reportedly eager to receive information about vaccines and claimed that vaccinators were either too busy or hurried and did not provide explanations. In Ethiopia, mothers stressed that health workers were not interested in teaching mothers about immunization during the vaccination sessions, since they were eager to end sessions as quickly as possible. In India, mothers complained that they did not know the appropriate ages for the various vaccinations. It was observed, however, that in Pauri Gharwal the auxiliary nurse midwives (ANMs) did inform mothers at what ages vaccines should be given and, in particular, that the measles vaccination should be given to the child in the ninth month. Over a quarter
of Malawian mothers claimed they could not ask questions during their visits to health centres because either they or the health workers arrived late. About a fifth of mothers residing in low-coverage areas in the Philippines claimed they had not received any information.

Communication on time and place of vaccination sessions
Health workers usually said they informed communities before a session, but field studies indicated that this was not always true. Various methods were used to communicate details of forthcoming sessions: mothers were informed in person; posters and notices were issued; local leaders were involved; and microphone announcements were made at mosques and in villages. Sometimes vaccination compliance was sought by coercive means: in the clinics of Sodo, Ethiopia, curative care was refused to unimmunized children.

Accessibility of vaccination services
Accessibility is usually defined from the mothers’ standpoint. However, the accessibility of sites to health workers may affect coverage, since staff may be late in arriving or may not arrive at all, particularly at outreach centres. In Ethiopia, health workers complained that they received no help to meet the cost of travelling to outreach centres.

Natural barriers such as rivers and accumulations of snow may render vaccination sites seasonally inaccessible. In Bangladesh, one site was inaccessible to mothers and health workers alike during the monsoon season, although the cost of using the ferry to gain access to the area in question made health workers’ visits difficult at the best of times, as they received no financial support in this respect.

The socioeconomic status of the health worker can also be a barrier to access. In three multicastrance villages in Pauri Gharwal, India, vaccination sessions were organized at the house of a local woman belonging to a high caste. Scheduled caste women and their children were denied access to the house until the children of all the higher caste women had been vaccinated. The scheduled caste mothers harboured resentment but could not express it directly, since the ANM from a nearby village who adminstered the vaccinations was married to a politically powerful man.

In all these countries it is primarily the mothers who take their children to vaccination sessions, and the mothers’ working conditions therefore affect the chances of their children being vaccinated. In India the times and sites for vaccination sessions were often determined to suit the health workers’ convenience, which meant that public transport schedules and failings in transport services were key factors in determining whether and when a vaccination session took place.

Gender issues may affect the accessibility of vaccination sessions. In Bangladesh, where the exclusion of women is widespread, mothers themselves did not like to be vaccinated with tetanus toxoid vaccine by male health workers but had no objections if their children were. In India, the administration of tetanus toxoid is hindered in Pauri Gharwal because pregnant women are not supposed to be seen in public, particularly by male village elders. Moreover, in a context of everyday violence and civil unrest, female health workers in Uttar Pradesh have been molested and raped.

When asked about the locations of vaccination sites, most mothers in all the countries studied did not report difficult access, long waits, or clashes between their work schedules and session times. However, there seemed to be a general impression that the mothers with unimmunized children lived farthest away from vaccination sites, had the lowest social status, and were most affected by seasonal phenomena such as flooding. In Bangladesh, poor mothers could not pay the fares to static vaccination facilities. In Ethiopia, some mothers of unimmunized children said that they could not carry their children the long distances between their homes and the sites in the prevailing high temperatures. In India, access to vaccination sites had a social aspect — scheduled caste women expressing anger at having to wait until higher-caste children had been vaccinated. In Malawi a fifth of the mothers said they had to walk for over an hour to reach a vaccination site. The fewest problems were reported from the Philippines. Mothers in India, Malawi and the Philippines reported that some health workers allowed their relatives and friends, and mothers of high social status, to jump the queue for vaccinations.

Mothers’ assessments of interpersonal relationships
Although the overall picture was positive, all the country studies indicated that health workers behaved impolitely, sometimes even rudely, towards mothers. In Ethiopia and India, certain health workers were reported as leaving their places of work as soon as they could. In Malawi, health workers shouted at mothers who arrived late, and they often worked slowly and stopped at midday even if mothers were waiting for their children to be vaccinated. In the Philippines, some health workers were easily angered if mothers forgot to bring their vaccination cards, postponed their first visit, or arrived late.

Missed opportunities
Vaccination opportunities are missed under the following circumstances:
- a health worker is not present when a child attends;

---

\[b\] Scheduled castes are groups in Indian society with a very low position in the social hierarchy based on their supposed ritual impurity. Previously they were referred to as Untouchables and Harijans, and are now known also as Dalits.
– a session is shortened;
– there is no vaccine of a particular kind;
– there are perceived contraindications such as fever, diarrhoea, cough or cold;
– a health worker decides not to open a new vial if there are only one or two children left to be vaccinated.

In India, unwell children were sometimes refused vaccination because health workers feared that any decline in the children's condition might be attributed to vaccination. Health workers sometimes refused to give vaccine to children of scheduled caste mothers who did not agree to use birth control.

Side-effects

Health workers usually informed mothers about possible side-effects of the vaccinations. All the health workers encountered children exhibiting side-effects following vaccination, most commonly swelling of injected parts, fever, pain and abscesses. Health workers never admitted that these side-effects happened because of their negligence, although some supervisors tended to think that this was the case, e.g. through the use of blunt needles.

Health workers also advised mothers on the action to take if a child suffered a side-effect. A health worker in Bangladesh said: “Several days after receiving tika (injection), the place where the vaccine was injected swelled up and the child was brought to me for advice. She was operated upon at the hospital and recovered fully”. In Ethiopia, a child was “paralysed” after being vaccinated, and her parents attributed this to faulty vaccination; the child was taken to hospital, where she recovered.

Side-effects can also occur if health workers are not adequately trained. In Ethiopia all the children vaccinated at one site developed an abscess, and it transpired that vaccination had been performed by a health worker who had received no training in the procedure.

In Bangladesh a child died following vaccination. The parents and other villagers initially accused the health worker of having caused the death. Although they were eventually persuaded that the vaccination was not responsible for this outcome, the EPI programme in the area faced a setback as news of the incident spread.

Mothers’ perceptions of side-effects

Mothers did not usually distinguish between adverse reactions and side-effects.

In Bangladesh, mothers reported fever, swelling, pain and scars as side-effects in their children but did not complain because they expected these disorders to disappear. They also assessed the effectiveness of the vaccine on the basis of their observation of the side-effects. Nevertheless, mothers expressed dissatisfaction about instances of swollen legs, high fever, and a great deal of pain, and some decided not to present their children for further vaccinations or to refrain from having a younger child vaccinated. Other mothers said that after their children recovered they continued to allow them to be vaccinated. There were instances of mothers refusing to have children vaccinated because of a fear of side-effects. One mother witnessed the death of a neighbour’s child after a leg became infected. When her eldest child developed an abscess after vaccination she decided not to have her younger child vaccinated.

Of 222 mothers in Sodo, Ethiopia, 56 said their children had experienced side-effects: swelling, fever, diarrhoea, vomiting, and sores and pus were mentioned by 15, 42, 18, 10, and 9 mothers, respectively.

In India, side-effects, particularly fever, were generally perceived as normal. When asked what vaccines did to the child’s body, most mothers replied that “vaccines produced fever”. Usually ANMs informed mothers what to expect and told them to use paracetamol in the event of fever. If (expected) side-effects were more serious, a different situation arose, possibly leading to the postponement of vaccination. This occurred under the following circumstances: mothers did not want their young babies to receive BCG; vaccination of the affected child was discontinued or postponed; or the vaccination of other children was discontinued. In the event of an abscess developing after injection the health worker was blamed or, in one case, the phenomenon was attributed to the specific fate of the child. Neither explanation had a bearing on the medical technology and consequently the door was left open for future vaccinations.

In Malawi the following side-effects were mentioned: swelling of injected parts; fever; crying; hardening of injected parts; fragments of needles remaining under the skin after breakage during injection; weakness; the injected limb becoming thinner, resulting in paralysis; and crippling of babies. Some mothers said they stopped attending for vaccinations because of side-effects, but most did not react in this way. In one village, mothers said they had received pills for the treatment of side-effects and that they also used traditional remedies. During in-depth interviews, two-thirds of the 50 mothers in Chintembwe said their children had never experienced side-effects. Some of the mothers whose children had suffered side-effects said they did not worry because they regarded them as a sign that the vaccine was working.

In the Philippines, only 34 of the sample of 2068 women believed that vaccinations could harm a child. Fever was the most frequently mentioned side-effect, followed by inflammation. But in the focus group discussion a more differentiated picture emerged. The mainstream view was that fever after vaccination was normal and could be relieved by paracetamol. Inflammation was also considered a normal reaction, in this case treatable by the application of a warm compress. Sores and scarring were
thought to prove that a vaccine was active and effective.

**Registration of eligible children**

In Bangladesh, registration was very patchy, its updating was always incomplete, and consequently the setting of targets was difficult. Some births were registered in the Indian study villages, but this was not how eligible children were identified or how vaccine requirements were determined. No registration was reported from the African countries.

The absence of proper birth registration data can lead to inaccuracies in reported coverage. This is particularly true if targets are set very high and registration conditions are negatively influenced by a lack of vaccination cards.

At some vaccination sites in Ethiopia, registration books were not kept at all. At one site, vaccinated children aged 1–2 years were listed in the monthly reports as being under 1 year of age. At another site there was a difference between the sum of the monthly figures and the annual total. In Uttar Pradesh, India, there was a discrepancy between the vaccination dates given on the cards kept by the mothers and the actual vaccination dates. In many instances the dates on the cards for vaccinations given after long intervals of time had been adjusted to suggest that schedules had been fulfilled.

**Tracing drop-outs**

No country had a credible and efficient system for tracing and motivating the parents of drop-outs and non-acceptors. In Bangladesh, Ethiopia, and India there was usually no list of drop-outs. Health workers seldom advised mothers about the vaccination status of their children. Indeed, mothers often attended for their children’s vaccination on their own initiative. Health workers usually failed to make home visits to the mothers who did not attend vaccination sessions. In Malawi, mothers were informed if the vaccination status of their children was inadequate when they attended for curative services.

**Why mothers did not present their children for vaccinations**

There are various reasons why women did not present their children for vaccination. Heavy workloads, illness, attendance at funerals, flooding of roads, and excessively hot weather were some of the reasons mentioned by women who would have liked to attend but could not do so. The malfunctioning or inadequacy of vaccination services was another important reason why mothers ceased to attend. In Bangladesh, mothers from peripheral villages were unable to reach the vaccination centres. Some mothers were misinformed about the days when vaccination sessions were to be held and consequently travelled long distances to no avail. Others received no information whatsoever. In India, mention was made of inconvenient session times, impoliteness of staff, and discriminatory limitations on accessibility. In Ethiopia, the absence of vaccines and vaccinators was mentioned, as was the distance to be walked in hot conditions. In Malawi, mothers had lost interest because vaccinators often failed to visit outreach clinics. Even if the mothers did attend with their children, there were often no vaccines. Sometimes the distance that had to be travelled on foot was too great, perhaps 20 km. Women also complained about health workers shouting at them.

**Discussion**

The routine provision of vaccinations at static facilities and outreach centres has become the backbone of sustainable vaccination systems in developing countries. Sustainable systems are essential for the continued control of vaccine-preventable diseases. Routine vaccination often takes place under adverse infrastructural and climatic conditions, and therefore requires a motivated workforce of vaccinators with ample support from policy-makers and managers. Furthermore, it is vital for parents to retain positive perceptions of the vaccination process if they are to continue to attend with their children for the completion of schedules.

Mothers are clearly willing to devote a great deal of effort to having their children vaccinated. Among providers, however, there is considerable room for improvement. The realities of routine vaccination and the concomitant perceptions of children’s carers in five African and Asian countries show a number of shortcomings and strains at the interface between providers and users which threaten the continuity and coverage of vaccination programs.

The principal shortcomings in vaccination provision included the following:

- inadequate supplies, particularly of vaccines, vaccination cards and registration materials;
- appropriate information on vaccines, vaccine-preventable diseases and vaccination schedules is usually given outside the context of vaccination sessions;
- poor transport for health workers adversely affects the frequency and regularity of vaccination sessions;
- vaccination sessions are held under provider-defined time constraints that jeopardize the quality of care;
- there are inaccuracies in the registration of vaccinations;
- there is no efficient follow-up of the parents of drop-outs.

---

1 A sustained collective refusal to have children vaccinated has been described in Malawi, where members of the African Church of Zion and Jehovah’s Witnesses are against vaccination for religious reasons; and for the Philippines, where Jehovah’s Witnesses do not have their children vaccinated.
Les parents sont prêts à investir beaucoup de temps et sur les sciences sociales et la vaccination montrent que (Ethiopie et Malawi) dans le cadre du projet de recherche Asia (Bangladesh, Inde et Philippines) et en Afrique qualité des services proposés. Les études réalisées en essentiel que ces derniers aient toute confiance dans la vaccination soient de bonne qualité. Quand la vaccination échelle mondiale, il est important que les services de comme instrument majeur de lutte contre les maladies à demandes du public

durée des vaccinations de routine laissait fortement à désirer. Ces vaccinations ont souvent lieu dans de mauvaises conditions matérielles et climatiques, qui soumettent les agents de santé à des pressions considérables. Un soutien résolu des décideurs et des administrateurs serait indispensable pour obtenir la main-d’œuvre extrêmement motivée nécessaire à des services de vaccination continus et de qualité.

Les études ont par ailleurs montré que les tensions sont notamment dues à l’impolitesse des vaccinateurs, ce qui nuit à la confiance; à la survenue d’effets secondaires graves et à l’idée que les méthodes de vaccination sont de mauvaise qualité, ce qui sape également la confiance; au manque de compétences sociales des vaccinateurs, dont les qualités techniques ne sont de ce fait pas toujours reconnues; et au fait que les mères des enfants non vaccinés sont dans l’ensemble économiquement et socialement défavorisées et vivent loin des centres fixes de vaccination. Les défaillances constatées dans la fourniture des vaccins et les tensions au point de contact entre les agents des services de vaccination et les utilisateurs nuisent à la régularité des vaccinations et favorisent l’apparition de groupes d’enfants non vaccinés ou partiellement vaccinés. Il est temps d’améliorer sérieusement la qualité et la viabilité du Programme élargi de Vaccination, qui a permis des progrès considérables depuis 1974. Il faudrait introduire des améliorations et des solutions socialement et culturellement adaptées qui tiennent compte des perceptions, des motivations et des contraintes des agents des services de vaccination mais aussi des parents.

Résumé

Les services de vaccination en Afrique et en Asie : qualité des prestations et demandes du public

Afin de garantir l’efficacité à long terme de la vaccination comme instrument majeur de lutte contre les maladies à l’échelle mondiale, il est important que les services de vaccination soient de bonne qualité. Quand la vaccination des enfants dépend du consentement des parents, comme c’est le cas dans la plupart des sociétés, il est essentiel que ces derniers aient toute confiance dans la qualité des services proposés. Les études réalisées en Asie (Bangladesh, Inde et Philippines) et en Afrique (Ethiopie et Malawi) dans le cadre du projet de recherche sur les sciences sociales et la vaccination montrent que les parents sont prêts à investir beaucoup de temps et d’efforts pour faire vacciner leurs enfants, afin d’empêcher les maladies futures, en atténuer la gravité, et/ou améliorer l’état de santé général de leurs enfants.

Les études ont montré que le maintien dans la durée des vaccinations de routine laissait fortement à désirer. Ces vaccinations ont souvent lieu dans de mauvaises conditions matérielles et climatiques, qui soumettent les agents de santé à des pressions considérables. Un soutien résolu des décideurs et des administrateurs serait indispensable pour obtenir la main-d’œuvre extrêmement motivée nécessaire à des services de vaccination continus et de qualité.

Les études ont par ailleurs montré que les tensions sont notamment dues à l’impolitesse des vaccinateurs, ce qui nuit à la confiance; à la survenue d’effets secondaires graves et à l’idée que les méthodes de vaccination sont de mauvaise qualité, ce qui sape également la confiance; au manque de compétences sociales des vaccinateurs, dont les qualités techniques ne sont de ce fait pas toujours reconnues; et au fait que les mères des enfants non vaccinés sont dans l’ensemble économiquement et socialement défavorisées et vivent loin des centres fixes de vaccination. Les défaillances constatées dans la fourniture des vaccins et les tensions au point de contact entre les agents des services de vaccination et les utilisateurs nuisent à la régularité des vaccinations et favorisent l’apparition de groupes d’enfants non vaccinés ou partiellement vaccinés. Il est temps d’améliorer sérieusement la qualité et la viabilité du Programme élargi de Vaccination, qui a permis des progrès considérables depuis 1974. Il faudrait introduire des améliorations et des solutions socialement et culturellement adaptées qui tiennent compte des perceptions, des motivations et des contraintes des agents des services de vaccination mais aussi des parents.
Resumen

Calidad de los servicios de vacunación y demanda social de vacunaciones en África y Asia

Para que la inmunización sea eficaz a la larga como una de las principales intervenciones de control de las enfermedades a nivel mundial, es importante ofrecer servicios de vacunación de buena calidad. Allí donde la vacunación infantil se realiza tras obtener el consentimiento de los padres, como ocurre en la mayoría de las sociedades, es esencial que éstos confíen en la calidad del servicio que se les ofrezca. Estudios realizados en el marco del Proyecto de Investigaciones sobre Ciencias Sociales e Inmunización en Asia (Bangladesh, la India, Filipinas) y en África (Etiopía, Malawi) muestran que los padres están dispuestos a invertir mucho tiempo y esfuerzo para hacer vacunar a sus hijos. Confían así en prevenir futuras enfermedades o mitigar su gravedad y/o en mejorar la salud general de sus vástagos.

Los estudios revelaron una erosión considerable de la sostenibilidad de los servicios de vacunación sistemática. La vacunación sistemática suele hacerse en condiciones adversas en lo tocante a infraestructura y clima, con la consiguiente presión para los agentes de salud. El personal altamente motivado que requieren los servicios de vacunación permanente de alta calidad necesita un gran apoyo de quienes elaboran y aplican las políticas.

Los estudios detectaron en las relaciones entre proveedores y usuarios una serie de fallos y tensiones que amenazan la continuidad y la cobertura de los programas de vacunación. Algunos de los principales fallos son los siguientes: la insuficiencia de los suministros, especialmente de vacunas, de tarjetas de vacunación y de registros; las deficiencias del transporte de los trabajadores sanitarios, que perjudican a la frecuencia y la regularidad de las sesiones de vacunación; el hecho de que la información relativa a la vacunación suele proporcionarse fuera del contexto de la sesión de vacunación; las inexactitudes en el registro de las vacunaciones; los límites impuestos por el proveedor a la duración de las sesiones de vacunación; y la falta de un seguimiento eficaz de los padres de los niños que dejan de vacunarse. Entre las tensiones importantes en el sistema de vacunación cabe citar el comportamiento descortés de los vacunadores, que mina la confianza en los proveedores de atención; la aparición de efectos secundarios graves y la percepción subjetiva de unas prácticas de vacunación de mala calidad, que socavan igualmente la confianza; la falta de aptitudes sociales entre los proveedores de atención, cuya competencia técnica puede pasar desapercibida por esa causa; y el hecho de que las madres de los niños no vacunados suelen ser pobres y de condición social baja y vivir lejos de los centros de salud fijos.

Los fallos en el suministro de vacunas y las tensiones en las relaciones entre proveedores y usuarios menoscaban la sostenibilidad y fomentan la proliferación de grupos de niños sin vacunar o parcialmente vacunados. Ha llegado el momento de mejorar la calidad y la sostenibilidad del Programa Ampliado de Inmunización, que tantos logros ha acumulado desde 1974. Se deben incorporar mejoras y soluciones adecuadas social y culturalmente, teniendo en cuenta las percepciones, las motivaciones y las limitaciones de los proveedores de atención sanitaria y de los padres que realmente participan en el proceso de vacunación.

References