Policy and practice

Policy opportunities and limitations of evidence-based planning for immunization: lessons learnt from a field trial in Bangladesh

John Grundy¹, Shukhrat Rakhimdjanov², Merina Adhikari³

ABSTRACT

Despite success in scaling up immunization, the national immunization programme in Bangladesh remains challenged by persisting inequities in health access related to geographic location and social factors, including income and education status. In order to tackle these inequities in access, the national immunization programme has conducted a field trial of the evidence-based planning model in Bangladesh between 2011 and 2013, in 11 low-performing districts and 3 city corporations. The main elements of this intervention included bottleneck analysis in local areas, action planning and budgeting to correct the bottlenecks, and establishment of a monitoring system to track progress. Coverage improved in 8 out of 14 districts post intervention. The main success factors associated with the intervention included more analytic approaches to situation assessment and taking action on health inequities at the local level, as well as more considered use of local data to track immunization drop-outs. The main factors associated with coverage declines in trial areas (6 districts) included poor financial resourcing and supervisory support, and gaps and turnover in human resources. In order to sustain and improve coverage, it will be necessary in future to link pro-equity approaches to subdistrict planning to higher-level health-system-strengthening strategy and planning systems. This will ensure that local area planners have the required resources, comprehensive operational plans and political support to sustain implementation of corrective actions to address identified system bottlenecks and inequities in health access at the local level.

Key words: Bangladesh, bottleneck analysis, evidence-based planning, immunization

BACKGROUND

Immunization in Bangladesh

Immunization has been recognized internationally as one of the development success stories of Bangladesh, and has been seen as being responsible, in part, for the sharp reduction in childhood mortality since 1990. The immunization programme was introduced in 1979, with vaccines to protect against six vaccine-preventable diseases. Since that time, the country has introduced a number of new vaccines and technologies, and achieved significant targets for disease elimination and eradication for tetanus and polio respectively. In the 24-year period between 1979 and 2003, coverage had increased to 72% for the triple diphtheria–tetanus–pertussis (DTP3) vaccination, after which Bangladesh entered a new vaccination era with the addition of four new antigens – hepatitis, Haemophilus influenzae type B, rubella and pneumococcal vaccines.¹

Much of this success in immunization scale-up has derived from the development of an extensive primary health-care system in rural areas, networked by systems of district health services, with systematic and comprehensive approaches to health-outreach services within the catchment areas of upazila health complexes (with population catchments of 300,000, after which there are additional administrative subdivisions of unions and wards). Within each ward, there is a “sub-block” that has an Expanded Programme on Immunization (EPI)² outreach site, where routine EPI services are provided monthly for catchment populations of approximately 1000.³ The
Government of Bangladesh, in collaboration with development partners, is currently further extending systems of community clinics in rural areas and satellite clinics in urban areas, in order to enhance the population accessibility of primary care services.4

**Gaps in immunization in Bangladesh**

Despite this public health success story, concerns have been identified in recent coverage surveys regarding pockets of low immunization coverage, particularly for disadvantaged subpopulation groups.5 Urban migrant populations are one concern. A total of 33% of the population of Bangladesh now resides in urban locations, and numbers are expected to grow from the current level of 53 million people to 79.5 million in 2028.6 The lack of an urban health infrastructure is a major concern in reaching urban migrant populations, with nongovernmental organizations, hospitals and the private sector working with the public sector to cover the population for immunization and related public health services.

This concern is reflected in recent results of coverage surveys and research, which demonstrate that there was a 7.6% dropout rate for immunization services, with the most common reasons stated by respondents as lack of awareness of the importance of vaccination, distance of the service from home, migration, and lack of information about services.5 Earlier coverage studies in Dhaka demonstrated that there was a dropout rate of 36% for bacille Calmette–Guérin (BCG)–measles vaccination in Dhaka’s Zone 8, which was attributed by the researchers to parents’ lack of knowledge about the vaccination schedule, fear of side-effects, and health workers’ reluctance to vaccinate during illness.7 An additional immunization challenge is the high rate of administration of invalid doses of vaccines (incidence of invalid doses 4.2% nationally and 11% in Dhaka),8 illustrating both health-worker and community lack of knowledge of immunization schedules. There is also a significant gap in the supply of health workers at vaccination sites, with the most recent multi-year plan for immunization indicating that there were about 6000–7000 vacant health assistant (vaccinator) posts in 64 districts across the country, accounting for 10–12% of all posts.3

Despite the strong rural health-care system in Bangladesh and maintenance of high coverage rates, coverage surveys also indicate pockets of low coverage. One study in 128 remote villages in 2011 established that a household’s relative poverty status, as reflected by wealth quintiles, was a major determinant in health-seeking behaviour.8 Mothers in the highest wealth quintile were significantly more likely to use modern trained providers for antenatal care, birth attendance, postnatal care and child health care than those in the poorest quintile, which is linked to socioeconomic disadvantage. Another study in 2010, of access to immunization in rural Bangladesh, found that a full vaccination rate was strongly correlated with a higher wealth index, living a short distance from a health facility, lower parity, mothers’ age being of 20–34 years, higher education level of mothers, and child male sex.9 Multivariate analysis of determinants of utilization in one recent study found that the child of a woman with no education was almost 80% less likely to be fully immunized than a child of a woman with secondary education. Children in the poorest economic quintile are less than half as likely to be fully immunized as children in the wealthiest quintile.10

In terms of geographic access, the country’s strategic plan for immunization noted that 13 out of 64 (20%) districts have DTP3 coverage below 80%.7 Finally, the most recent demographic and health survey findings indicate that, although coverage remains high at the national level, more in-depth analysis of immunization coverage according to social variables, including socioeconomic status, education level and sex, suggest some trends in coverage linked to social disadvantage.4 These demographic and health survey data illustrate a gap of 20.8% between the highest (97.2%) and lowest (76.4%) education levels, and a gap of 9.2% between the highest (86.0%) and lowest wealth quintiles (76.8%) for the percentage of children who are fully immunized.4

These studies and surveys therefore point towards a complex set of supply-side and demand-side determinants of access to vaccination services in specific local urban and rural areas, in what is a rapidly changing social and economic context.

**National and global initiatives for improving coverage using micro-planning**

The development objective of the Government of Bangladesh is to “improve access to and utilization of essential health, population and nutrition services, particularly by the poor”.11 Particular challenges noted by the national health programme for 2011–2016 that were of significance to the immunization programme included high rates of neonatal death, limited effectiveness of urban primary health-care service delivery, the requirement for more gender-sensitive and equity-based service-delivery models, inadequacies in human resources, weak legal frameworks, and low utilization of public health facilities by the poor.3 Strategies implemented to date in Bangladesh include the “Reaching Every District” strategy,12 which involves implementation of a mix of strategies, including supportive supervision, mapping of lower-performing districts and areas, and preparation of micro-plans to reach every women and child.3 Interventions in urban areas have also focused on such micro-level strategies, such as extending the hours of community clinics in local areas, training of vaccinators, screening for drop-out, and establishment of community volunteer groups.13 Such interventions have demonstrated success nationally and internationally, with implementation of “Reaching Every District” strategies in Asia14 and Africa15 demonstrating the potential to raise coverage of DTP3 vaccination for disadvantaged groups within a reasonable time frame.

Evidence-based planning is a complementary strategy to “Reaching Every District”. Whereas the “Reaching Every District” strategy focuses principally on the use of data to analyse the status of the immunization programme and modify activity plans as necessary,17 evidence-based planning takes a
more in-depth analytic approach to analysis of coverage across five domains of availability, accessibility, utilization and adequate and effective coverage (see next section on analytic frameworks).

The persistence of immunization inequities in Bangladesh, and the complex range of demand-side and supply-side determinants driving these inequities, has resulted in a renewed effort by immunization managers and development partners to tackle the bottlenecks to immunization performance in local settings. This paper describes the concept, process and impact of evidence-based planning, and outlines and analyses its implementation in the Bangladeshi context. It then considers the policy opportunities and limitations of the approach for application in both national and international settings.

**Analytic frameworks and the evidence-based planning intervention**

In 1978, Tanahashi proposed a model to both measure health-service coverage and identify bottlenecks in implementation. The Tanahashi model categorizes coverage into five domains of availability, accessibility, utilization and adequate and effective coverage. Effective coverage is defined as the end result that provides the desired public health impact (which in the case of immunization is the “fully immunized child”). In reaching coverage, the model identifies two demand-side and three supply-side determinants of coverage (in addition to quality, which covers both sides). The determinants are physical access, first use, continuous use, supplies, human resources, and quality. Using these coverage concepts, the method uses a selected set of interventions (of which one is immunization coverage) to identify the main bottlenecks to health-system performance, and, on the basis of this analysis, designs the strategies, specifies the indicators and identifies the costs required to achieve effective coverage. A “traffic light system” then monitors implementation, by identifying the extent to which the proposed interventions have been implemented to reduce bottlenecks. The process is conducted according to the steps listed next.

1. The first step in the process is developing a “coverage-deficit chart” according to each determinant of coverage.
2. The second step involves entering data, validating them, and creating a bar chart named the “coverage-deficit chart”. This enables a forum for the planning team to discuss health-system issues by focusing on specific determinants of low coverage.
3. The third step is an identification of programme bottlenecks through interactive in-depth discussion by each subdistrict.
4. The fourth step is development of a “bottleneck action plan” (including budget) and monitoring system.

Together, these steps constitute the “evidence-based planning” approach, the methods of which are outlined in more detail in the analytic frameworks and findings sections of this paper.

**SOURCE OF INFORMATION**

A case-study approach utilizing both qualitative and quantitative methods has been used to build a up a picture of the effectiveness of the evidence-based planning approach in improving analysis of the immunization situation in selected local areas. Implementation of the initiative commenced in 11 districts and 3 city corporations in 2011. A smaller sample of 20 upazilas (at least one from each district) and a zone in each city corporation were included in the assessment (including Barisal City Corporation and two city corporations in Dhaka City). There was a total target population of 831 170 children aged less than 1 year in the 11 districts and 3 city corporations. Each of these sample upazilas was visited at least once between October 2013 and April 2014, in order to collect and analyse data for this assessment.

In-depth interviews were undertaken in 2013 and 2014 with district and upazila managers and concerned personnel involved in the micro-planning trial. These interviews were carried out by United Nations Children’s Fund (UNICEF) zonal officers and a supporting UNICEF consultant with relevant health staff, including the civil surgeon, the upazila health staff and family planning officer, the district EPI superintendent, the officer in charge of immunization and the vaccinators (health assistants). These participants represented the planning group. In city corporations, the planning group also included NGO managers, supervisors and medical officers. The individuals interviewed (n = 58) represented approximately 22% of planning participants across the 11 districts and 3 city corporations. No structured interview format was utilized.

Consultation meetings (n = 4) were undertaken to document the barriers to improved vaccination coverage through removing bottlenecks and implementing corrective actions (as described in the previous section), with the same participants described above. These consultation meetings were undertaken after micro-planning meetings with district and upazila health officials of Rangpur, Jhalokati, Barisal City Corporation and Bagerhat districts. Analysis of the coverage-deficit chart and causes of low performance were discussed in the consultation meeting. Observations were made during participation in the micro-planning meeting, as well as through verification of documents related to corrective action and its implementation. Records were kept for bottleneck analysis and the coverage-deficit chart. Observations were carried out while collecting and validating documents, as well as participating in micro-planning meetings. A checklist, notebook and audorecorder were used to record information, with proper approval from the authority concerned. Immunization data included data from the bottleneck-analysis exercise (as described above), coverage-survey data, and the information provided by planners through the corrective-action exercise.

A review of literature listed in PubMed was conducted in January 2015, using the search term “bottleneck analysis” in the title and abstract fields. The search was not limited by date.
Sixteen articles were retrieved but none was relevant to subnational planning in low- or middle-income country settings. A repeat of the search using the term “evidence-based planning” retrieved 46 articles, of which only six were assessed to be of some relevance to this field trial; most of these are cited in this paper (see Discussion). The literature review was conducted after the trial, in order to compare and contrast the results with findings from similar settings in other countries.

**Data analysis**

For qualitative data, after entering field notes from interviews, consultations and observations, the main themes were organized into coherent categories in the form of problems and barriers to immunization that prevent improvement in immunization coverage and management performance. These categories are discussed in the section “Process findings”. The main approach to analysis is described in relation to the methods of bottleneck analysis, including the method for the coverage-deficit chart described in the previous section, and the analytic framework.

**Ethical considerations**

As this operational assessment was undertaken as part of an internal evaluation of an existing programme initiative, no specific consent was sought from an institutional ethics body. Prior approval from the EPI headquarters at the Ministry of Health and Family Welfare was sought before starting data collection, and verbal consent was received from the respondents prior to conducting interviews.

---

**Box 1. Definitions of coverage determinants in the context of immunization services**

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Availability coverage</strong></td>
<td>Availability of essential commodities and human resources: assess the availability of critical health-system inputs such as drugs, vaccines and supplies</td>
</tr>
<tr>
<td><strong>Accessibility coverage</strong></td>
<td>Assess beneficiaries’ geographic access to health services, including the number of villages regularly served by outreach services (for population-oriented outreach services) and the time taken or distances to reach a facility</td>
</tr>
<tr>
<td><strong>Utilization coverage</strong></td>
<td>Assess the first use of multi-contact health services, for example, the first in a series of childhood vaccinations</td>
</tr>
<tr>
<td><strong>Adequate coverage</strong></td>
<td>Timely continuous utilization: assess utilization with respect to the number of recommended contacts for care; for example, the percentage of children fully immunized (estimated by coverage of three-dose series of pentavalent [diphtheria, tetanus, pertussis, <em>Haemophilus influenzae</em> type B, hepatitis B] vaccine)</td>
</tr>
<tr>
<td><strong>Effective coverage</strong></td>
<td>Assess the percentage of children who have received all the doses of all antigens within 1 year following the exact time and interval specified in the immunization schedule (referred to as valid coverage)</td>
</tr>
</tbody>
</table>

---

---

**OUTCOMES**

**Process findings**

The process findings are described next, according to the three main areas of coverage-deficit charting, bottleneck analysis and monitoring systems. In all cases, the processes were performed by members of the immunization micro-planning group for each upazila (20 in rural areas) or zone (3 in urban areas).

**Coverage-deficit charting**

Before undertaking the assessment of the coverage-deficit chart (the first step in the bottleneck-analysis approach), participants were requested to reach consensus on the definition of the determinants of coverage in the context of immunization services. This is described in Box 1.

Following this step, participants were requested to identify or formulate measurable indicators with the administrative data of their catchment area and then reach consensus on the coverage data. The planning groups then created the coverage-deficit chart. The bar chart denotes the coverage according to coverage type (see Fig. 1). The planning group could then concentrate on each specific low-coverage determinant and start bottleneck analysis through active discussion (see following section).

Almost all of the upazila health officers, family planning officers and EPI staff were found to be aware of the coverage-deficit charts, which were displayed at the facilities.
the upazilas were found to have the required information for creating the coverage-deficit chart, such as the target population, situation of existing manpower and other logistics, a list of hard-to-reach areas, and the achievements of the previous year.

**Bottleneck analysis**

The planning participants analysed the coverage-deficit chart across the four domains (or determinants of coverage) of enabling environment (social norms, legislation, policy, budget, management), supply (availability of essential inputs, access to adequately staffed services, facilities and information), demand (financial access, cultural practices and beliefs, continuity of use) and quality (adherence to quality standards). In this way, bottlenecks to performance could be related to both the determinants of coverage (enabling environment and supply, demand and quality factors) and the types of coverage (availability, accessibility, utilization, and adequate and effective coverage).

Table 1 provides an example of how participants in one case cross-referenced analysis of determinants of coverage with analyses of types of coverage (and coverage gaps) from the coverage-deficit chart.

Through group discussion, participants identified bottlenecks as supply-side or demand-side, or as related to the enabling environment. These were then critically analysed to assess the differences in coverage patterns across the coverage-deficit chart. In the process of undertaking this analysis, participants were able to graphically visualize the difference between availability and accessibility, accessibility and utilization, utilization and adequate coverage, and adequate and effective coverage. This helped them focus on the differences and accurately identify causes and the major bottlenecks obstructing higher immunization coverage. On the basis of this analysis, participants then were able to develop a plan to address bottlenecks, using a planning table to enter data into fields labelled as “bottlenecks”, “corrective actions”, “monitoring”, “means of verification”, “frequency timeframe” and “budget required”. This was referred to as a “bottleneck-analysis action plan”, which commenced implementation in 2011.

**Monitoring systems**

As part of the evidence-based planning system, participants were guided by facilitators to develop a “monitoring results for equity systems” (Mores) table, which indicated the status for implementation of the bottleneck-analysis action plan. The Mores table refers to the use of “traffic light” symbols to indicate the level of implementation of corrective action. The red zone denotes no action done; yellow that action is in progress and green that action is completed or about to be completed.

**Results of evidence-based planning**

The impacts of evidence-based planning are outlined next, in terms of impacts on coverage and the status of actions to reduce barriers to performance.

**Impacts on coverage**

Fig. 2 provides data on effective coverage (proportion of fully immunized children) for 14 districts before and after the
The evidence-based planning intervention. The figure demonstrates that mixed results were achieved. Of the 14 districts, 8 showed improvement in coverage and 6 districts declined. In 6 of the 8 improving districts, the coverage improvements ranged from 4% to 13%. Of the 6 districts that declined, the decline was in the range 1–4%.

### Barriers to performance and performance success factors

During consultations, the main reasons for the districts having a lower than expected national coverage was identified by planning participants. The reasons were a mix of technical and managerial factors. In terms of technical factors, common presenting problems included administration of invalid doses, lack of registration of pregnant mothers, incomplete registration books, lack of birth registration, inadequate emphasis on communication with parents, and poor reporting.

In addition to these technical barriers to performance, the findings from micro-planning meetings also indicate that there were major unresolved managerial and resourcing barriers to performance. Participants in planning sessions identified lack of quantity and quality of supervision as a major gap. Delayed or irregular supervision, as well as poor communication with communities on the timing of immunization sessions, was reported by health staff to contribute to lack of logistical support for immunization sessions.

<table>
<thead>
<tr>
<th>Table 1. Analysis of bottlenecks, evidence-based planning Bangladesh</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Difference between coverage types</strong></td>
</tr>
<tr>
<td>Accessibility coverage and utilization coverage: 11.0%</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Adequate coverage and effective coverage: 10.6%</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Other managerial and resource constraints included lack of basic immunization supplies, under-financing of basic health-services operations, uncertainty of funding and high turnover and shortages of staff. In some cases, rapid turnover of staff, in conjunction with lack of investment in orientation programmes for new staff, meant that the practices of evidence-based planning could not be sustained. Owing to the constraints of these enabling determinants of coverage, fewer EPI sites were located in some instances, which may have impacted on accessibility coverage. In some cases, the decline in coverage was attributed to lack of implementation of the bottleneck corrective action plan, or lack of supervision. In one district where coverage dropped from 93% to 86%, implementation funds were not received in the previous year.

There were also some management and service-delivery practices that were associated with positive coverage outcomes. This was particularly the case in upazilas that implemented active searching for unimmunized individuals. In one upazila, staff identified drop-out cases and invalid doses through sample survey, as well as during household visits. This practice enabled them to take corrective actions accordingly. Similarly, Dhaka City Corporation North and South were found to keep records of mobile numbers in order to ensure follow-up of drop-out cases. The main success factor, however, was the ability of the planners, through the evidence-based planning approach, to identify bottlenecks and plan corrective actions. The other advantage of the evidence-based planning approach that was observed was the increased analytic capacity of planners to distinguish types of coverage, and the significance of this for planning actions.

**DISCUSSION**

**Summary of main findings**

This field trial in evidence-based planning has demonstrated that district and subdistrict planners have the capacity to conceptualize the enabling, supply-side and demand-side determinants of coverage. They have also been able to conceptualize these determinants in terms of types of coverage, and then apply this to action planning and monitoring. This evaluation has also confirmed that monitoring activities were carried out to specify the gaps in system performance, as well as to implement and monitor the status of corrective actions. It was found that in almost all upazilas studied, immunization and health staff were aware of the evidence-based planning approach. It was found that almost all the monitored upazilas adopted corrective action plans to address each bottleneck.
As well as providing evidence of the capacity of district and subdistrict (i.e. upazila) planners for development, implementation and monitoring of the evidence-based planning approach, there is also some indication that the intervention (see Fig. 2) had some impact on coverage, with 8 out of 14 low-performing districts demonstrating improvements to effective coverage (fully immunized children) post intervention. Key elements in the success of the intervention have been the bottleneck-analysis approach itself, which has enhanced the capacity of planners to analyse the immunization situation, as well as to develop and monitor action plans to reduce inequities in coverage. The other main success factor identified in the intervention was the enhanced capacity of planners to undertake active search and follow-up of immunization drop-out cases.

Nevertheless, the fact that six districts declined in coverage post intervention, with others receiving only modest gains, suggests that the intervention itself, in the absence of broader system-strengthening initiatives, is likely to have limited impact. This is borne out by the fact that weak supervision, high turnover in human resources, and lack of basic investments in health-system material and financial resources in some districts, all point to limited impact of a subdistrict planning initiative in the absence of higher-level managerial, policy and system-strengthening strategy.

The strategy is also limited in terms of the difficulty of validating coverage, owing to over-reliance on administrative coverage reporting to assess impacts. Although successive surveys of data on coverage in Bangladesh have demonstrated reasonable quality of data, it is also expected that, owing to reporting difficulties and high levels of inward and outward migration from urban areas, it is likely that planners will be confronted by issues of data quality in these lower-performing districts. This assessment of the evidence-based planning methodology was also limited by the fact that other health-system-strengthening initiatives and investments (including maternal, neonatal and child health programme planning) were concurrently taking place in the field-trial districts, making it difficult to attribute coverage improvements solely to the intervention under study.

**Policy and strategy implications**

In more recent studies, there is now an increasing focus on subdistrict inequities through a “reaching every community” approach, which lends itself very well to the evidence-based planning approach (using bottleneck analysis). By addressing those determinants of coverage affecting the last 20% of children that are not vaccinated, then the strategy can go some way to addressing the so-called “inverse inequity hypothesis”, whereby progress in immunization can often benefit the least vulnerable and least hard-to-reach children first. This planning method, by firstly increasing the conceptual and analytic capability of planners to specify the determinants and types of coverage, and secondly focusing on the main constraints to lower coverage, has demonstrated the potential to support such reduction in inequity.

However, there are important policy and strategy implications from this field trial for pro-equity health planning in Bangladesh and elsewhere. In fact, the findings from this field trial are reflected in other recent international studies on evidence-based planning. In one recent evaluation of evidence-based planning in Philippines, although the evaluators found that the approach improved the use of local information to analyse the situation, they concluded that evidence is only one factor influencing investments in health. Other critical factors included political commitment in the local area to decentralization and the requirement for a “parallel process at a higher level of government” to resolve issues of financing and sector coordination. In the absence of such higher-level system interventions, it was considered by the evaluators that the evidence-based planning approach would have limited impact on service delivery. Similarly, an investment case for scale-up of family planning in Asia, using an evidence-based planning approach, found that, although the approach is helpful in developing strategies that are contextualized to the local area, implementation can be affected by system bottlenecks upstream, including limitations in human-resource numbers, religious and cultural ideologies and legislation. Similarly, two comprehensive literature reviews conducted to investigate why children are not reached by immunization services concluded that the main factors were a complex interplay of supply and access to services, parental knowledge and attitudes, and family attitudes and characteristics, leading analysts to conclude that “alternative approaches should be investigated beyond the immunisation programme within the broader health system”.

These findings, and related international findings, are therefore consistent in pointing towards a clearer future for evidence-based planning systems. Firstly, as a subdistrict analytic planning and monitoring tool, the capacity to sustain planning actions to reduce inequities (through reaching every community) will depend on the analysis and contextualization of local area strategies, as well as equitable investments in higher-level enabling and supply-side factors. This assumes a health-system-strengthening approach. In practical terms, evidence-based planning systems, and the related bottleneck-analysis approach, will need to be carefully linked to annual operational planning and budgeting systems that have the capacity to draw down budgets and allocate the required material and financial resources. Marginal budgeting in this way can be linked to overall sector budgeting, to ensure that the bottleneck-analysis approach links to overall sector planning and financing strategies, and hence can become less dependent on project financing in order to sustain pro-equity planning interventions.

**Conclusion**

This study concludes that evidence-based planning has the potential to improve coverage and reduce inequities through a more analytic and pro-equity approach to district and subdistrict health planning. In this field trial in Bangladesh, the system of evidence-based planning has been installed and implemented in all trial areas, with coverage improvement demonstrated in 8
out of 14 low-performing districts. The trial has demonstrated the potential to implement more analytic methods of health planning, and improve coverage when linked to system-strengthening investments and more careful use of local-area data for tracking of immunization drop-out cases. Despite these successes, more moderate coverage improvements and coverage declines in other districts highlight the limitations of the evidence-based planning method as an analytic tool rather than a system-strengthening strategy. In order to sustain and improve on coverage gains, it will be necessary in future to link such subdistrict analytic approaches to strategy and planning for higher-level health-system strengthening, in order that local area planners have the required resources, comprehensive operational plans and political support to take corrective actions on system bottlenecks and inequities in health access.

ACKNOWLEDGMENTS

We acknowledge the contributions of United Nations Children’s Fund (UNICEF) zonal officers and the supporting consultant (Md Anwarul Hoque) for their role in facilitation of planning meetings and documentation of the planning process. We also acknowledge the role of civil surgeons, upazila health staff and family planning officers, the district Extended Programme on Immunization (EPI) superintendents, the officer in charge of immunization and the vaccinators (health assistants). Finally, we acknowledge the contributions of nongovernmental organization managers, supervisors and medical officers in city corporations for supporting a similar facilitation role.

REFERENCES


How to cite this article: Grundy J, Rakhimdjanov S, Adhikari M. Policy opportunities and limitations of evidence-based planning for immunization: lessons learnt from a field trial in Bangladesh. WHO South-East Asia J Public Health 2016; 5(2): 155–163.

Source of Support: Nil. Conflict of Interest: None declared. Authorship: JG undertook the literature review, reviewed field reports and wrote the first draft of the paper. SR provided overall technical supervision of the design and implementation of the operational research, assisted with monitoring and data collection, reviewed and revised original drafts and made corrections to the drafts. MA assisted with monitoring of the implementation, reviewed publication drafts and made corrections to the drafts.