Background

Health systems around the world are working to provide more effective and equitable immunization services to reach zero-dose and under-immunized children and recover and rebuild after the COVID-19 pandemic. Accountability is a core component of performance improvement, and with stronger accountability, health system outcomes such as responsiveness, equity, and efficiency are likely to be better. Accountability is defined as the ‘condition of being responsible and answerable to someone for meeting performance or other activities, measured against a set of standards.’ There are three types of interlinked accountability: financial, democratic, and performance. This evidence brief focuses on what works to strengthen performance accountability in immunization programs.

Performance accountability is the relationship between an individual or organization, including national immunization programs, ministries of health, donor bodies and technical partners, in a position to mandate certain objectives or performance targets and those who must account for actions and achievements in relation to those targets or objectives. Interventions to strengthen accountability therefore aim to reinforce these accountability relationships or ‘lines of accountability.’ To be effective, accountability relationships must have three key elements: 1) clearly defined and agreed objectives or performance expectations; 2) mechanisms to monitor and measure progress toward the achievement of objectives; and 3) incentives to achieve the objectives.

Exercising accountability implies that some individual or entity has the power to exercise accountability over another, setting in place project targets and other mechanisms to enhance program performance and quality. Achieving equitable immunization coverage requires multiple accountability relationships, including those between vaccinator and patient, supervisor and vaccinator, health facility and community, district and health facility, and national immunization program and districts. While failure to reach zero-dose children and missed communities typically stems from a combination of challenges, absent or weak accountability within one or more of these relationships may contribute to these challenges.
Weak or absent accountability could be characterized by a lack of shared understanding of the roles and responsibilities of program staff, and a lack of consequences for those responsible for poor performance or when those responsible take no ownership of these results. On the other hand, the presence of strong and clear lines of accountability, accompanied by sufficient autonomy and empowerment, can encourage those accountable to reach performance targets or objectives. However, health workers and other staff cannot be held accountable if critical inputs, such as financial and operational resources, skills, and data are not available. Accountability is critical at all levels of the health system to ensure timely supply of vaccines, adequate financing, and other critical inputs to reach zero-dose children. This review focuses on performance accountability at sub-national levels of the health system. This should not minimize the important contribution of national level and non-state actors, including donors, in institutionalizing accountability and ensuring zero-dose and under-immunized children are reached by immunization programs.

**What Are the Root Causes of Weak Accountability?**

We mapped the root causes of performance accountability challenges among district managers, health facilities, and workers at the middle and lower levels of the health system (Figure 1). There are three critical challenges to reaching zero-dose children and missed communities (Table 1). Each can be linked to the absence of one of the key elements to an effective accountability relationship.

**Table 1. Accountability challenges related to reaching zero-dose children**

<table>
<thead>
<tr>
<th>Accountability-related challenge</th>
<th>Element needed for an effective accountability relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers and managers are unaware of targets related to zero-dose children and missed communities.</td>
<td>Clearly defined and agreed upon objectives or performance expectations.</td>
</tr>
<tr>
<td>Lack of motivation to identify and correct suboptimal immunization program performance toward reaching zero-dose children.</td>
<td>Incentives to achieve objectives.</td>
</tr>
<tr>
<td>Families of zero-dose children are missed entirely by the health and other social systems. Their needs are least likely to be understood and represented by social accountability mechanisms, or there are no social accountability mechanisms.</td>
<td>Mechanisms for community members to monitor and measure progress toward the achievement of objectives.</td>
</tr>
</tbody>
</table>
Methods
This brief synthesizes a review of grey and published literature on interventions to strengthen performance accountability. We used a pre-determined set of search terms to find accountability approaches to improving immunization program performance and coverage of zero-dose children and missed communities. We reviewed 64 articles and focused on synthesizing evidence and lessons from the 29 most relevant based on the inclusion criteria. No articles described interventions related to accountability for zero-dose children.

Table 2. Search strategy

<table>
<thead>
<tr>
<th>DATABASES</th>
<th>Pubmed; Google Scholar; USAID Reports; Google; WHO research reports database; World Bank research and reports database; Unicef research and reports database; Equity reference group papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEARCH TERMS</td>
<td>accountability mechanisms: OR health OR health system<em>OR strength</em> outcomes OR incentives OR improve health outcomes OR incentive* OR positive incentive* OR negative incentive* OR health workers OR best practice* OR routine immunization OR plan* OR activity* OR solution* OR opportunity* OR target setting OR intervention*</td>
</tr>
<tr>
<td>INCLUSION CRITERIA</td>
<td>Accountability literature related to immunization or other health services</td>
</tr>
<tr>
<td>EXCLUSION CRITERIA</td>
<td>Does not discuss an intervention or strategy; Does not discuss performance accountability</td>
</tr>
</tbody>
</table>
Findings

The accountability ecosystem comprises all relationships, or lines of accountability, that exist to achieve a specific outcome. As noted above, effective performance accountability requires a variety of relationships and a balance between accountability from managers and higher levels of the health system, donors, and technical partners (also known as upward accountability) and from clients or beneficiaries of health services (also known as downward accountability). The literature review showed that the precise number and mix of relationships required for a healthy accountability ecosystem is unique to each situation, but there are some general guidelines. Too few relationships may reduce the responsiveness of the health system and providers and raise well-founded concerns about service quality. Too many lines of accountability may undermine the effectiveness of each relationship, raising questions about who providers and managers are really accountable to. Likewise, too many upward accountability relationships may compromise downward accountability, orienting service providers away from the needs of clients because they are too focused on accountability to their superiors. Instead, holistic strengthening of the accountability ecosystem through a mixture of upward- and downward-oriented interventions is ideal.

UNDERSTANDING THE ACCOUNTABILITY ECOSYSTEM TO DESIGN AN ACCOUNTABILITY FRAMEWORK INCORPORATING HOLISTIC PACKAGES OF INTERVENTIONS

Effective responsibility requires transparency and a shared understanding of existing accountability relationships and those required to achieve program objectives. The joint accountability approach, originally developed to strengthen performance accountability in family planning programs, is a model for mapping the accountability ecosystem that could be adapted for immunization. Used when weak performance accountability is identified as a barrier to achievement, the approach consists of a three-stage curriculum to map existing upward and downward accountability relationships as they relate to a specific outcome, and identify opportunities to strengthen accountability. Results indicate that increasing key partners’ awareness of how they are accountable for an outcome, while also empowering them to achieve intended results, may strengthen accountability. Regular meetings of these partners not only reinforce their individual and collective accountability, but they are also a forum for celebrating successes and learning from each other.

Interventions such as audit and feedback, group problem-solving, high-intensity training, supportive supervision, and performance measurement and reviews have been used to strengthen the accountability ecosystem. Packages of interventions are most likely to be effective if they work together to remove accountability barriers in the specific context. In the sections below, we distinguish between two types of interventions to overcome the root causes of weak performance accountability: those that strengthen upward, and those that strengthen downward accountability.

STRENGTHENING UPWARD ACCOUNTABILITY

Emerging evidence suggests that high-quality training to strengthen leadership and management capabilities, when combined with other interventions, such as supportive supervision and data review meetings, can improve accountability by increasing awareness of health goals and the responsibilities of various actors as they relate to those goals and performance expectations.

Insufficient awareness of performance expectations among health care providers and managers is an oft-cited root cause of weak accountability. In the context of new targets for reaching zero-dose children, it is likely that health workers and managers lack awareness. Training is frequently used to increase awareness, but on its own is unlikely to improve performance. When paired with other interventions, such as supportive supervision and group problem-solving, evidence suggests that training is more effective. These strategies have yet to be robustly evaluated, but based on theories of performance improvement, we determined them likely to strengthen performance accountability when well designed, tailored to local context, and implemented effectively.
In Uganda, the Stronger Systems for Routine Immunization project implemented a multi-faceted intervention across eight districts. In high-performing facilities, the intervention captured best practices in leadership, management, and accountability. Based on these, the project designed and implemented trainings for 121 health facility managers, and reinforced learning through follow-up supportive supervision and application of the newly acquired skills. Following the training, managers were more aware of their role and accountability, and leveraged microplans to track and review the effectiveness of interventions to immunize hard-to-reach children. They allocated sufficient resources to immunization as a result of a more consultative and transparent budgeting process with facility staff and the community, and delegated operational and financial authority for immunization to the Expanded Programme on Immunization focal point, which empowered and increased focal point accountability.7

The USAID-funded Leadership, Management and Governance project in Cote d'Ivoire sought to build manager and director capacity in two pilot regions through the Leadership Development Program Plus, which combined specialized leadership and management training, mentorship, and semi-annual data-review meetings. Strengthening accountability was one component of the intervention, after which both regions saw improvements in maternal, newborn, and child health indicators, including a 40 percent increase in antiretroviral retention rates among people living with HIV. Because of data limitations, however, it was not possible to determine a correlation between the intervention and improved outcomes.8

High-quality routine engagement and performance review, including supportive supervision and data review meetings, when designed to be supportive and empowering, can increase motivation of health workers and managers to achieve performance targets.

Supportive supervision is a well-recognized performance improvement intervention that can reinforce effective accountability relationships. However, supervision is not inherently supportive, and it is critical for supervisees to be recognized and supported. Supportive supervision can create productive and effective accountability relationships, such as those between health care providers and their managers, and between district and regional managers. It clarifies expectations, routinely monitors and measures performance, and by creating a relationship dynamic that fosters and incentivizes improvement, motivates individuals to achieve performance targets. In the context of identifying and reaching zero-dose children, existing supportive supervision and data review processes would likely require adaptation. As with training, evidence suggests that supportive supervision may be more effective when combined with interventions such as training and group problem solving.6

High-quality supportive supervision represents an evolution in program oversight, aiming to improve performance by strengthening relationships and two-way communication; setting clear expectations; shifting the focus from task completion to performance improvement; and emphasizing joint problem-solving. A scoping review identified multiple quantitative studies suggesting that supportive supervision improves primary health care worker performance in low- and middle-income countries, with qualitative evidence indicating a positive association with health worker motivation. Conversely, the review indicated that a lack of or poor-quality supportive supervision is associated with poorer performance.9 One study from the Republic of Georgia found that a well-implemented package of activities, including the development of guidelines, district-level training, performance monitoring and evaluation, and funding for supportive supervision resulted in a significant increase in DPT-3, polio-3, and hepatitis B coverage after one year, and a significant reduction in vaccine wastage for DPT, oral polio, and hepatitis B.10

Performance review meetings are another way to strengthen accountability. Also referred to as data or peer review meetings, performance review meetings are held regularly to focus on data review and include open dialogue among peers about barriers and enablers to performance achievement.11 The Africa Routine Immunization System Essentials project conducted in-depth case studies in Cameroon, Ethiopia, and Ghana to understand the underlying factors contributing to improved routine immunization performance (as measured by DPT-3 coverage). Among the six identified drivers was a regular program and health worker performance review. This team-oriented approach was found to foster a collective sense of accountability for immunization program performance and increase motivation.11 Well-implemented peer review meetings are another means of oversight and motivation and create a similarly productive accountability relationship between peer facilities, districts, and regions, with an emphasis on increasing transparency related to results monitoring and performance improvement.

A study from Shimp et al. found that peer review meetings, when held at least quarterly, improve immunization program performance and technical capacity of health staff on key aspects of immunization program implementation, including data quality and use. These meetings fostered a culture of regular performance monitoring, self-assessment, peer review, and sharing of best practices, lessons, and benchmarking.12

Financial and non-financial incentives have the potential to improve motivation, but the effects are mixed. Incentive scheme efficacy is heavily dependent on the broader system context.
Health worker and manager motivation can be improved through financial and non-financial incentives, but financial incentives alone are rarely sufficient to do so.\textsuperscript{13,14} Recent reviews and evaluations of health workers’ motivation suggest that feeling valued and supported; having an environment in which they can apply their skills and are socially connected can improve extrinsic and intrinsic motivation. Many of the interventions discussed above (high-quality leadership and management training, supportive supervision, and peer and performance review) improve motivation through non-financial incentives but must be tailored to the drivers of motivation in a particular context. Social accountability mechanisms can increase feeling connected to and valued by communities, which may strengthen intrinsic motivation.

Financial incentives schemes are intended to increase accountability by providing payments if pre-defined performance targets are achieved, thereby increasing the motivation of health care providers and managers. Financial incentives, also referred to as pay-for-performance (P4P) and performance-based financing, require strong monitoring and measurement to determine whether targets have been reached. The evidence on the effect of financial incentives on health service delivery outcomes is mixed, and any positive effects on immunization coverage were small. P4P intervention effectiveness is heavily dependent on contextual elements within the broader health system.

A study of primary health care providers included in a P4P intervention in Cambodia found that a change in income can significantly influence job motivation but depends on the degree to which the income changes. Larger financial incentives were associated with a larger positive effect. Incentives accounted for 42 percent of health care providers’ total income. The study also found that health care worker motivation could be improved by distributing incentives fairly; promoting a sense of community service and belonging; and providing opportunities for training and professional development, suggesting that financial incentives alone may be insufficient.\textsuperscript{15}

Diaconu et al.’s review of financial incentives to improve health service delivery in low- and middle-income countries found mixed effects on childhood immunization coverage. Various studies showed evidence of small positive effects on measles and polio vaccine coverage; small positive and negative effects on BCG coverage; negative effects on DPT coverage; and little-to-no effect on the percent of zero-dose children and pentavalent coverage. The review also notes findings from Peru and Zimbabwe showing that P4P increased the use of immunization services by 5 percent to 42 percent among poorer populations. However, the empirical certainty of these findings is low. Interestingly, Diaconu et al. did find that providing incentives to managers may strengthen accountability relationships across additional levels of the health system.\textsuperscript{16}

Singh et al.’s review assessed the evidence to understand how, why, and under what circumstances P4P works in low- and middle-income countries. The review found that the effects of P4P depend upon a variety of contextual factors, with positive effects more likely when facilities have financial autonomy, adequate staffing levels, and a well functioning infrastructure. Positive effects are also more likely if there is an efficient banking system that does not impose user fees. If health system inputs are vastly underperforming prior to P4P implementation, they are unlikely to improve as a result of P4P. Negative effects are less likely when the P4P intervention includes a range of indicators, incentivizes all involved in delivering the particular service, and uses efficient verification systems that do not cause undue burden.\textsuperscript{16,17}

**STRENGTHENING DOWNWARD ACCOUNTABILITY**

Social accountability mechanisms can strengthen accountability in immunization and service provider responsiveness to the communities they serve.

Social accountability approaches engage citizens and communities to hold the government, public officials, and health care providers accountable for the delivery of high-quality services. In the context of immunization service delivery, robust social accountability requires strong relationships between citizens as the recipients of immunization services and the health system (including individual health facilities and district health offices) as the service provider. Strengthening the accountability of providers to communities and clients is
also referred to as ‘beneficiary control,’ and is complementary to the upward accountability mechanisms described above. There are two key aspects of social accountability approaches: answerability and enforceability. Answerability ensures that the health system meets performance targets, and enforceability ensures consequences if targets are not met. Examples of social accountability interventions include health facility committees, citizen report cards, and patient charters. Families of zero-dose children and communities missed by immunization services are likely to have the fewest mechanisms for social accountability due to their lower social and political status, challenging contexts (e.g., conflict settings, nomadic communities, informal urban settlements), and gender barriers that constrain mothers from accessing health services for their children and participating in social accountability mechanisms.

Danhoundou et al.’s review of evidence from sub-Saharan Africa suggests that social accountability interventions improve health service quality and outcomes if they are designed thoughtfully and implemented carefully. The review identified the following characteristics of successful interventions: engagement of community members and health facilities with clear roles and expectations; integrated data collection; fostering trust between citizens and leaders; and sufficient financial and technical support. Factors limiting social accountability approach efficacy include lack of citizen motivation to participate and government support for facilitating or funding social accountability forums. However, the review also noted a high degree of variability in measurement and reporting, making it difficult to draw firm conclusions about the effect of social accountability interventions on outcomes. Naher et al.’s review of the evidence from Southeast Asia found that social accountability interventions enhanced local accountability, service delivery monitoring (i.e., through reviews of performance data, use of patient score cards, and participatory complaints surveys); and citizen empowerment through active engagement in shaping how services were delivered. The interventions emphasized the mutual responsibility and participation of both service providers and communities.

In Kenya, health facility committees were formed in six districts to strengthen engagement and accountability between the health system and communities. After two years, intervention districts were found to have significantly higher immunization coverage (91 percent) than control districts (66 percent). Factors enabling the success of this intervention included clearly articulated roles and responsibilities for health committees, community inclusiveness and representation, and valid data sources.

In Uganda, an intervention implemented in nine districts sought to strengthen community monitoring of health service performance through health facility report cards to increase provider accountability for service quality. Because interpretation and use of report card data is complex, a participatory approach was employed, allowing community members to interpret and analyze the information through a series of facilitated meetings, each resulting in an improvement action plan. The communities oversaw the establishment of routine monitoring mechanisms, and those in the intervention districts became extensively involved in monitoring providers after the intervention. Results suggested that being scored increased health providers’ motivation to respond to community needs. The randomized field experiment had a positive effect on immunization coverage, including an increase in measles coverage among 1-year-old children from 79 percent in control districts to 85 percent in intervention districts, and an increase in DPT coverage among 3-year-old children from 79 percent in control districts to 87 percent in intervention districts.

**Final Thoughts**

Interventions to improve accountability must start with an understanding of the performance objectives, which accountability relationships exist or should exist, and the causes of sub-optimal accountability mechanisms. Interventions to strengthen performance accountability must address the entirety of the accountability ecosystem, including both upward and downward accountability. In the context of reaching zero-dose and under-immunized children and missed communities, a first simple step could be improved dissemination and discussion of any new immunization targets or performance goals through training in leadership and management, supportive supervision, and performance review meetings. Emphasis should be placed on improving downward accountability for missed communities and families of zero-dose and under-immunized children, who are least likely to be included in social accountability mechanisms. In settings where communities and immunization service beneficiaries do not have the resources to exercise accountability themselves, civil society organizations, advocates, and media can help to strengthen this function. Where performance accountability mechanisms are introduced in the context of donor-funded and/or partner-supported projects, attention should be given to how these processes can be institutionalized beyond the lifespan of a project or when donor funding ends.

Effective interventions improve accountability relationships by clarifying responsibilities and performance expectations (joint accountability mapping, supportive supervision, financial incentives, and social accountability approaches); strengthening joint oversight through improved performance management (supportive supervision, financial incentives, and social accountability approaches); incentivizing the achievement of performance targets (financial and non-financial); and increasing the responsiveness of the health system and care providers to community needs (social accountability approaches). We found that these interventions are most likely to succeed when designed as a holistic package based on local needs. While this review identified when and how these interventions may improve health outcomes, including those related to immunization, there is currently little evidence showing the effect of accountability mechanisms on reducing the number of zero-dose children and missed communities. More research and evaluation are needed to understand and overcome the specific accountability challenges pertaining to these populations.
References:


