An Evidence-Based Policy Brief

Task shifting to optimise the roles of health workers to improve the delivery of maternal and child healthcare

Executive Summary

This policy brief was prepared by the Uganda country node of the Regional East African Community Health (REACH) Policy Initiative.

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Key messages

The problem:
Shortage of medically trained health professionals to deliver cost-effective maternal and child health (MCH) services

There is a shortage and maldistribution of medically trained health professionals. These are important reasons why cost-effective MCH services are not available to over half the population of Uganda and progress towards the Millennium Development Goals for MCH is slow. Optimising the roles of less specialised health workers (‘task shifting’) is one strategy to address the shortage and maldistribution of more specialised health professionals. However, the lack of an explicit policy limits the implementation and coordination of task shifting.

Policy options:
Optimising the roles of 1) lay health workers, 2) nursing assistants, 3) nurses, midwives and clinical officers, and 4) drug dispensers

1. Lay health workers (community health workers) may reduce morbidity and mortality in children under five and neonates; and training for traditional birth attendants may improve perinatal outcomes and appropriate referrals.
2. Nursing assistants in facilities might increase the time available from nurses, midwives and doctors to provide care that requires more training, but the impacts of expanded the use of nursing assistants on the quality and costs of care are uncertain.
3. Nurses and midwives to deliver cost effective MCH interventions in areas where there is a shortage of doctors would probably improve MCH outcomes and reduce inequities.
4. Drug dispensers to promote and deliver cost-effective MCH interventions and improving the quality of the services they provide could potentially improve health outcomes and reduce inequities.

• The costs and cost-effectiveness of all four options are uncertain.
• Given the limitations of the currently available evidence, rigorous evaluation and monitoring of resource use and activities (particularly the delivery of cost-effective MCH interventions) is warranted for all four options.

Implementation strategies:
A combination of strategies is likely needed to effectively implement all four options

• A clear policy is needed to ensure optimal roles of health workers based on which cadres can deliver cost-effective MCH interventions efficiently and equitably.
• Community mobilisation and reduction of out-of-pocket costs to improve mothers’ knowledge and care-seeking behaviours, continuing education and incentives to ensure health workers are competent and motivated, and community referral and transport schemes for MCH care are needed to ensure effective implementation of such policies.
The problem

There is a shortage of human resources for health in sub-Saharan Africa, including Uganda. Expanding the roles of less specialised health workers or ‘task shifting’ - a process of delegation whereby tasks are moved, where appropriate, to less specialised health workers – is one way of addressing this problem. The objectives of this policy brief are to summarise the best available evidence describing the problem and potential solutions for addressing Uganda’s health workforce shortage for maternal and child health (MCH) care using task shifting as one approach to strengthen and expand the health workforce.

We have chosen to use the term ‘optimising health worker roles’ to clarify that the focus is primarily on optimising the roles of less specialised health workers to deliver MCH interventions that are currently not accessible for the majority of the population and are not being provided by more specialised health workers. An underlying principle is that care should be provided at the lowest effective level; i.e. by the least specialised and centralised health worker that can provide appropriate (cost-effective) care. We have therefore focused on optimising the use of primary health care providers other than doctors.

Size of the problem

Uganda is making slow progress towards meeting the Millennium Development Goals for maternal and child health. The maternal mortality ratio is still high at 440 per 100,000 live births. The under-five and infant mortality rates are 140 and 82 per 1000 live births, respectively. Lack of access to effective healthcare is a major cause of unnecessarily high maternal and child mortality. For example, only 42% of mothers delivering with a skilled provider, only 29% of under-five children with fever receive anti-malarials on the same or next day, and only 36% of children receive basic vaccinations by one year of age.

In 2002, Uganda had a total of 2,919 medical doctors with 71% working in the central urban region which is inhabited by only 27% of the total population. Similarly, 64% of the nations’ total of 20,186 nurses and midwives are working in the central urban region. Forty-seven percent of the approved positions in the public sector are vacant.

Uganda is recognized as one of the countries implementing task shifting as a pragmatic response to the health workforce shortage at an informal level. This has occurred, for example, for the provision of antiretroviral therapy for HIV/AIDS, integrated management for childhood illnesses, obstetrical care through training of traditional birth attendants, and establishing village health teams. However, much of the task shifting that has occurred has been without a clear policy, planning, or monitoring and evaluation. As a consequence, some of this task shifting is in conflict with current health professional regulations and licensure. Furthermore, the lack of an explicit policy limits the extent to which task shifting can be implemented and coordinated effectively, efficiently and equitably.
Factors underlying the problem

Effective task shifting requires appropriate utilisation of MCH services by mothers and children, effective training and incentives for health workers to provide those services, adequate supplies and equipment, increased supervision of less specialised health workers by health professionals, changes in referral processes, and the resources to pay for this.

Barriers to accessing public health services for the rural poor, who have a higher disease burden than urban dwellers, include long distances to health facilities, lack of skilled staff, lack of drugs and poor health worker attitudes. The poorest section of society most utilizes the free public health services, which are widely perceived to offer low quality care. A phenomenon of ‘by-passing’ free public health facilities to use more expensive private facilities is common across income groups.

Community health workers can perform adequately if well trained, supported and integrated into a functioning health system. However, there are low morale and high attrition rates among community health workers due to poor or no financial compensation, inadequate supplies, and poor support from the community and health system.

Inadequate financing remains a primary constraint in the health sector. Funding a basic package of services in developing countries is estimated at USD 30 – 40 per capita per year, excluding antiretrovirals and the pentavalent vaccine. The current level of public funding for health in Uganda is USD 8 per capita, which means that only 30% of Health Sector Strategic Plan I was funded. Remuneration of health workers is very poor and inequitable. Fixed sector budget ceilings by the government to maintain macro-economic stability limit the increase of funding to the health sector, hence reduced expansion of health services and the health workforce. This has negative implications for training and paying health workers particularly those working in hard-to-reach areas.

Policy options

Options for optimising the use of health workers to improve the delivery of cost-effective MCH services include optimising the use of 1) lay health workers, 2) nursing assistants, 3) nurses, midwives and clinical officers, and 4) drug dispensers. These four options are complementary, with the primary aim of ensuring the optimal use of non-medically trained primary healthcare workers to ensure universal delivery of cost-effective MCH services.

These four options are described below, including the advantages, disadvantages and acceptability of each option.

There are varied views on task shifting. Those in favour of task shifting see it as a potential solution to Uganda’s dual problem of lack of skilled personnel and high demand for services. Those opposed to task shifting see it as a quick fix and an approach that could dilute the quality of care and compromise the health system in the long term. Donor and international agencies widely support task shifting, although WHO is now opposed to training TBAs.
The costs and cost-effectiveness of all four options is uncertain.

Policy option 1:
Optimise the role of lay health workers

Lay (non-professional) health workers include community health workers (CHW’s) and traditional birth attendants (TBA’s). Examples of cost-effective MCH interventions that they could deliver include:

- Promotion of appropriate care seeking and breastfeeding
- Provision of contraceptives, cord care and clean delivery kits, iron folate supplementation during pregnancy, balanced protein-energy supplements during pregnancy, antiretrovirals, vitamin A supplementation in children, preventive zinc supplementation for children, insecticide-treated bednets, intermittent preventive treatment for malaria
- Improved diarrhoea management (zinc and oral rehydration therapy)
- Community detection and management of pneumonia with short course amoxicillin
- Improved case management of malaria including artemisinin-based combination therapies (ACTs)
- Recognition, triage and treatment of severe acute malnutrition in affected children in community settings

Advantages:
- CHW’s and TBA’s can potentially deliver most MCH interventions for which there is evidence of cost effectiveness in primary care.
- Expanding the use of CHW’s may reduce morbidity and mortality in children under five and neonates.
- Training for TBA’s may improve perinatal outcomes and appropriate referrals.

Disadvantages:
- Ensuring the quality of care delivered by CHW’s and TBA’s would require increased training, supplies and equipment, increased supervision by health professionals, changes in referral processes, and incentives.

Acceptability:
- Some policymakers and advisors in the Ministry of Health and WHO are sceptical about providing training to TBAs.
- Some health professionals are sceptical about expanding the use of CHW’s and TBA’s.

Policy option 2:
Optimise the role of nursing assistants

Various terms may be used to describe nursing assistants, including nursing auxiliaries, nurse extenders and health care assistants. Nursing assistants may have various degrees of training, but they have less training than registered or qualified nurses. MCH interventions that they could deliver include:

- Promotion of breastfeeding
• Provision of contraceptives, iron folate supplementation during pregnancy, balanced protein-energy supplements during pregnancy, antiretrovirals, vitamin A supplementation in children, preventive zinc supplementation for children, insecticide-treated bednets, intermittent preventive treatment for malaria
• Improved diarrhoea management (zinc and oral rehydration therapy)

Advantages:
• Expanding the use of nursing assistants in facilities might increase the time available from nurses, midwives and doctors to provide care that requires more training.

Disadvantages:
• The impacts of expanding the use of nursing assistants on the quality of care are uncertain.
• Ensuring the quality of care delivered by nursing assistants would require increased training, increased supervision by health professionals and incentives.

Acceptability:
• The Ministry of Health has recently decided to phase out nursing assistants.
• Nurses, midwives and clinical officers may be reluctant to take responsibility for supervising nursing assistants and to cede tasks.

Policy option 3:
Optimise the role of nurses, midwives and clinical officers

Nurses, midwives and clinical officers are trained health professionals. MCH interventions that they could deliver include:
• Promotion of breastfeeding
• Provision of contraceptives, iron folate supplementation during pregnancy, balanced protein-energy supplements during pregnancy, antiretrovirals, vitamin A supplementation in children, preventive zinc supplementation for children, insecticide-treated bednets, intermittent preventive treatment for malaria
• Interventions for prevention of post-partum haemorrhage and use of oxytocic agents
• Basic newborn resuscitation with self inflatable bag and mask
• Community detection and management of pneumonia with short course amoxicillin
• Improved case management of malaria including artemisinin-based combination therapies (ACTs)
• Recognition, triage and treatment of severe acute malnutrition in affected children in community settings

Advantages:
• Expanding the use of nurses, midwives and clinical officers to deliver cost effective MCH interventions in areas where there is a shortage of doctors would probably improve MCH outcomes and reduce inequities.
Disadvantages:

- Expanding their use would require strategies to ensure that they can be recruited and retained in underserved communities.
- Ensuring the quality of care delivered by nurses, midwives and clinical officers would require increased training, supplies and equipment, supervision doctors, changes in referral processes, and incentives.

Acceptability:

- Some nurses, midwives and clinical officers are concerned about taking on additional responsibilities.
- Doctors may be reluctant to take responsibility for supervising nurses, midwives and clinical officers and to cede tasks.

Policy option 4:

Optimise the role of drug dispensers

Drug dispensers can be trained pharmacists. However, they often lack basic qualifications and training. MCH interventions that they could deliver include:

- Promotion of appropriate care seeking
- Provision of contraceptives, cord care and clean delivery kits, iron folate supplementation during pregnancy, balanced protein-energy supplements during pregnancy, antiretrovirals, vitamin A supplementation in children, preventive zinc supplementation for children, insecticide-treated bednets, intermittent preventive treatment for malaria
- Improved diarrhoea management (zinc and oral rehydration therapy)

Advantages:

- Expanding the use of drug dispensers to promote and deliver cost-effective MCH interventions and improving the quality of the services they provide could potentially improve health outcomes and reduce inequities, but the impacts of doing this are uncertain.

Disadvantages:

- Ensuring the quality of services delivered by drug dispensers would require increased training, supplies, and incentives.

Acceptability:

- There is scant information regarding experience or stakeholder views regarding expanding the use of drug dispensers in Uganda.

Implementation considerations

Optimizing the roles of health workers is just one solution to improving the delivery of maternal and child health care and addressing other health system challenges. Implementing changes in the roles of health workers requires other changes. It is also an opportunity to address other health system problems. Implementation strategies can capitalise on enablers of optimising health workers’ roles as well as addressing barriers to doing so.
A process is already underway to develop a policy and guidelines for task shifting in Uganda. Other enablers of optimising health workers’ roles to deliver effective maternal and child health care include:

- There is widespread support for improving MCH care.
- Demand for care is unmet and there is a shortage and uneven distribution of health professionals.
- Health facilities are widely available and the hierarchical organisation of the health system provides a structure for delegating tasks to less specialised health workers, referring patients who need more specialised care, and providing supportive supervision.
- Mothers feel more comfortable with health workers with less training and people in rural areas prefer free public health services that are close to home.
- There is international support for task shifting.
- Successful task shifting is already occurring in Uganda and internationally.

Key barriers to implementing the policy options and implementation strategies to address these are summarised in the table below.

### Table S-1. Implementation considerations

<table>
<thead>
<tr>
<th>Barriers to implementation</th>
<th>Strategies for implementation</th>
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<tbody>
<tr>
<td><strong>Mothers’ knowledge and care seeking behaviour</strong></td>
<td>Outreach by CHWs and drug dispensers</td>
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<tr>
<td>Mothers have limited knowledge of effective MCH interventions and may not recognise symptoms and signs and seek care from appropriate health workers when needed. Mothers have mixed attitudes – they want health professionals with more training, but feel more comfortable with health workers with less training</td>
<td>CHWs and drug dispensers could be used to teach mothers and promote appropriate use of health services</td>
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<tr>
<td><strong>Community mobilisation</strong></td>
<td>Outreach by CHWs and drug dispensers</td>
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<td>Community mobilisation could include active community participation, contextualization of information in the local customs and culture, involvement of a broad range of key stakeholders, home visitation and peer counselling</td>
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<td><strong>Mass media campaigns</strong></td>
<td>Mass media campaigns</td>
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<td>Mass media information on health-related issues could induce changes in health services utilisation, both through planned campaigns and unplanned coverage</td>
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<tr>
<td><strong>Patient education materials</strong></td>
<td>Patient education materials</td>
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<tr>
<td>A wide range of patient education materials could be used to inform mothers in combination with other strategies</td>
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<tr>
<td><strong>Reduction or elimination of out-of-pocket costs</strong></td>
<td>Educational meetings, outreach visits, audit and feedback</td>
</tr>
<tr>
<td>User fees could be reduced or removed completely for some or all women and children and for some or all types of MCH care. Other ways of reducing or eliminating out of pocket costs include voucher schemes, community-based health insurance schemes, community loans for emergency transport and care, and conditional cash transfers (payments conditional on utilisation of services such as immunisations or prenatal care)</td>
<td>Educational meetings (training workshops), educational outreach (a personal visit by a trained person to health workers in their own settings)</td>
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and competency to expand their roles and audit and feedback (a summary of performance over a specified period of time given in a written or verbal format) could be used alone or in combination with each other and other interventions to improve health worker practice.

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<tr>
<th>Incentives for health workers</th>
<th>Adequate payment</th>
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<tr>
<td>Health workers lack incentives to expand their roles. CHWs are not paid and reimbursement systems of other health workers do not provide incentives for appropriate delivery of cost-effective interventions. Non-financial incentives are also inadequate.</td>
<td>Health workers could be paid in any of the following ways or combinations of these: salary (a lump sum for a set number of working hours or sessions per week), capitation (a payment per patient), fee-for-service (payment for each item of service or unit of care). Payment in kind (material incentives) includes, for example, housing, transport, childcare facilities, free food and employee support.</td>
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<tr>
<th>Referral processes and transportation</th>
<th>Strategies to implement referral guidelines</th>
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<tr>
<td>There is a support supervision system and a quality assurance unit in the Ministry of Health that is responsible for supervision. However, the system is not functioning adequately. Patients are often referred without any direct communication between the different levels of care and patients are often responsible for organising their own transportation.</td>
<td>Strategies to implement referral guidelines include passive dissemination, educational activities, structured referral sheets and the use of financial incentives.</td>
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<tr>
<th>Educational meetings, outreach visits, audit and feedback</th>
<th>Strategies described above could be used alone or in combination with each other and other interventions to improve referrals.</th>
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<tbody>
<tr>
<td>Pay for performance</td>
<td>Pay-for-performance (as described above) could be used to motivate appropriate referrals.</td>
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<tr>
<th>Reduction or elimination of out-of-pocket costs</th>
<th>Other ways of reducing or eliminating out of pocket costs for referrals include voucher schemes, community health insurance schemes, community loans for emergency transport and care, and conditional cash transfers (e.g. for delivery at a facility with skilled birth attendance).</th>
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| Community referral and transport schemes | Schemes that are used vary widely and may include paying for travel costs, establishing a transportation plan, and providing various means of transportation, including canoes, loan of a truck, and ambulance transport using bicycles, motorcycles or 4-wheel drive vehicles. Establishing effective communication between primary and referral level facilities is a key component of transport systems. |
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