

IMPROVING IMMUNISATION COVERAGE THROUGH BETTER DATA, PLANS AND BUDGETS

JANUARY 2016

BMAU/UNICEF POLICY BRIEF NO. 1/16



INTRODUCTION

According to the Uganda Demographic and Health Survey (UDHS) data, the infant mortality rate in Uganda declined by 39% from 88 per 1,000 live births in 2001 to 54 per 1,000 live births in 2011. Whilst awaiting the 2016 wave of the UDHS, increased immunisation coverage remains a key factor for improving child survival rates. The proportion of children aged 12-23 months who are fully immunised has improved only slightly in the past two decades: from 47% in 1995 to 52% in 2011. Furthermore, only 40% of children aged 12-23 months were immunised before their first birthday. Children living in urban areas are more likely to be fully vaccinated than those living in rural areas (61% and 50%, respectively) and vaccination coverage decreases as birth order increases. The 9 vaccine preventable diseases that children are immunised against in Uganda are: polio, tuberculosis, whooping cough, diphtheria, tetanus, hepatitis B, pneumonia (PCV), haemophilus influenzae type b and measles.¹

BOX 1: DPT Vaccine

DPT vaccine can prevent diphtheria, pertussis (whooping cough) and tetanus. For full protection, children must receive three doses of the vaccines, administered before the age of three months. The percentage of children receiving their third and final dose of DPT (i.e. DPT3) is therefore a key indicator and vital gauge for a country's immunisation coverage.

Through the examination of a key immunisation indicator (DPT3 coverage – see Box 1) vs. primary health care (PHC) allocations, in spite of receiving one of the highest PHC releases per capita, West Nile emerges as the sub-region with the lowest DPT3 coverage nationwide. The remainder of this brief focuses on a case study of the West Nile sub-region to provide a deeper understanding of district level bottlenecks affecting the effective delivery of immunisations services.

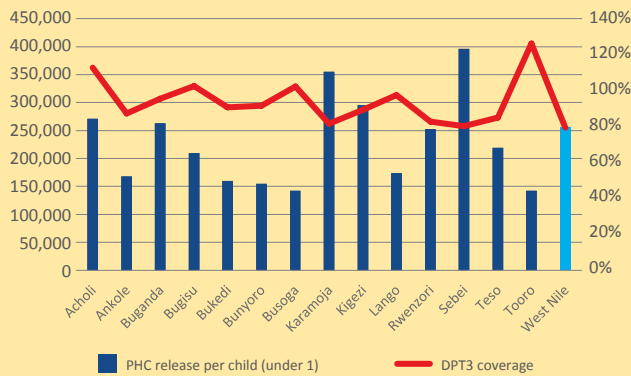
¹ Ministry of Gender, Labour and Social Development (2015), Situation Analysis of Children in Uganda, Kampala



CASE STUDY: WEST NILE SUB-REGION (FY 2013/14)

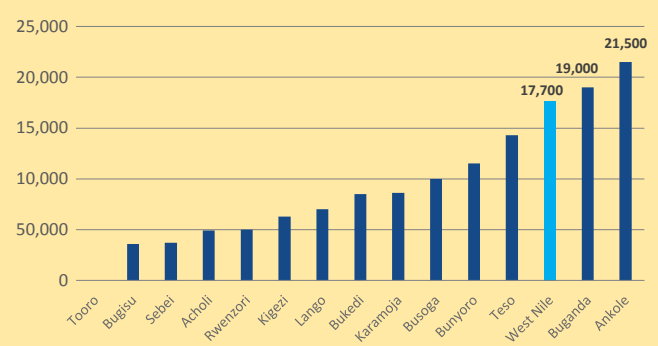
The West Nile sub-region receives a relatively high PHC release per child under one year (UGX 255,000), yet at 79% DPT3 coverage remains below the national average (Figure 1). To elaborate further, the region has the third highest absolute number of children who have not completed their third round of DPT vaccination in Uganda (Figure 2). In view of the high PHC releases per child, DPT3 coverage markedly below 100%, and the high number of children not completing DPT vaccinations, the sub-region serves as an interesting case study to provide a better understanding of district level bottlenecks affecting the effective delivery of immunisations services.

Figure 1: Sub-regional DPT3 coverage vs. PHC release per child (under 1 year)



Source: 2013/14 annual health sector performance report and 2013/14 budget data from budget.go.ug

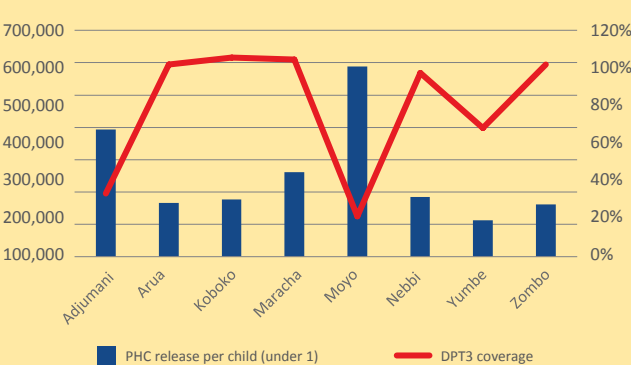
Figure 2: Number of children yet to complete DPT3 per sub-region



Source: 2013/14 annual health sector performance report

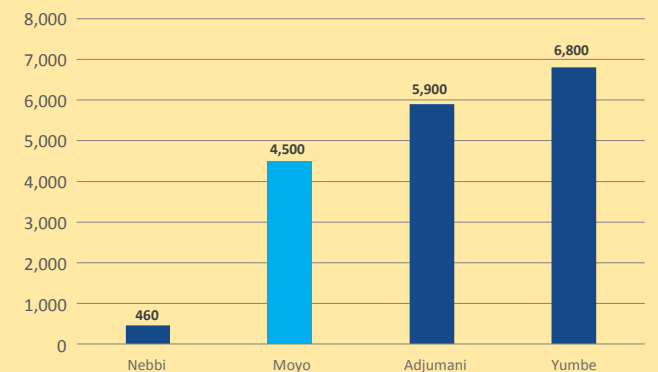
Within the West Nile sub-region, DPT3 coverage varies significantly as do budgetary allocations. In per capita terms (children under 1 year), Moyo receives more than three times the amount of PHC allocations compared to Zombo, yet Moyo displays a far lower rate of DPT3 coverage (Figure 3). Moyo also accounts for the third highest absolute number of children in the sub-region who are yet to complete their final DPT vaccination (Figure 4). A closer look at inputs reveals that within the West Nile sub-region, PHC non-wage per capita allocations are approximately three times higher in Moyo than in Zombo (Figure 5). Non-wage recurrent grants are used to finance operational and running costs of health facilities, including outreach services such as immunisation activities. Finally, by documenting remarkably similar outpatient attendance rates per capita in both Moyo and Zombo, Figure 6 points to comparable health-seeking behaviour across the two districts.

Figure 3: West Nile DPT3 coverage vs. PHC release per child (under 1 year)



Source: 2013/14 annual health sector performance report and 2013/14 budget data from budget.go.ug

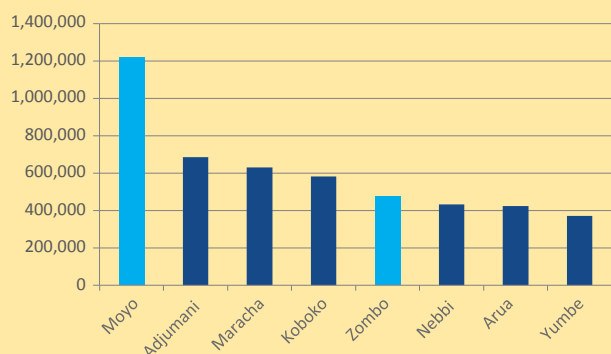
Figure 4: Number of children yet to complete DPT3 in West Nile²



Source: 2013/14 annual health sector performance report

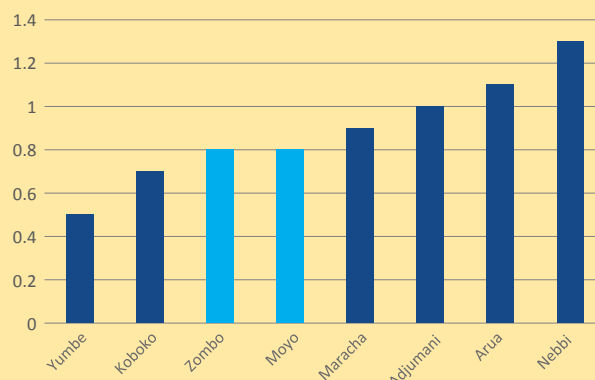
² Arua, Koboko, Maracha and Zombo have over 100% coverage and therefore not included

Figure 5: PHC in non-wage per capita



Source: 2013/14 budget data from budget.go.ug

Figure 6: OPD utilisation per person per year



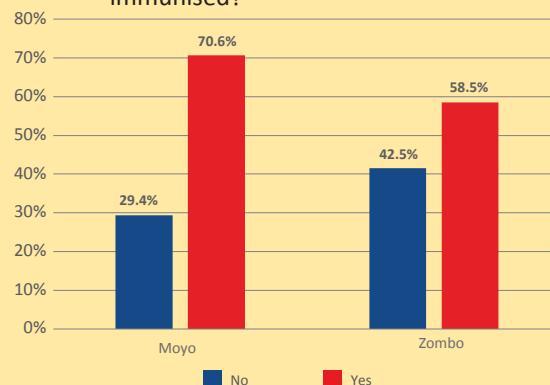
Source: 2013/14 annual health sector performance report

EVIDENCE FROM THE FIELD

Field work consisted of Focus Group Discussions (FGDs) with mothers in health facilities in Moyo and Zombo districts, as well as larger FGDs with communities neighbouring the selected health facilities, and in-depth interviews with District Health Officers (DHOs), facilities managers and health workers. Evidence from the monitoring visits reveals that while all facilities managers interviewed in both Moyo and Zombo received training in the Reaching Every District to Reach Every Child (RED/REC) strategy, the two districts implement their immunisation strategies through two distinct approaches. All health facilities visited in Moyo district utilise a so-called door-to-door immunisation strategy, relying on Village Health Teams (VHTs) to support these activities. This strategy appeared effective in improving coverage rates and all mothers and communities interviewed in Moyo responded positively when asked about the status of immunisation services. In turn, Zombo district relies on outreach posts and community mobilisers. Interestingly, this strategy was not considered effective by most discussants because the outreach posts are very few in number and each mobiliser is expected to cover prohibitively large catchment areas. Notably, health facilities in Zombo use penalties as a way of motivating parents to adhere to their children’s immunisation schedule. This includes fining parents when they don’t comply with the immunisation schedule and denying children treatment if they do not provide the children’s immunisation cards at the time of the visit. This was recorded in one of the FGDs as a major bottleneck to accessing immunisation services. Health workers in Moyo also utilise fines (when parents lose immunisation card), but to a lesser degree. Key findings from the field further include an urgent need to better calibrate planning and budgeting efforts to provide more adequate immunisation services by rectifying significant data inconsistencies in population projections. Negative attitude towards immunisation as well as supply side constraints were also identified as key bottlenecks.

Data accuracy is a vital element in assessing performance at outcome level. Most importantly, population census data and population projections play a key role in informing planning and budgeting strategies at both national and local levels. According to the FY 2013/14 Annual Health Sector Performance Report (AHSPR), with a population of 480,000 DPT3 coverage in Moyo amounted to 21% (Figure 3). Data notwithstanding, this fact was vehemently disputed during field visits. In the words of the DHO in Moyo district, “if DPT3 coverage had in fact been only 20% for the past few years, surely there would have been an outbreak of immunisable diseases in our district”. Following such claims and the verification of what appeared to be a relatively efficient delivery of immunisation services in Moyo district, a closer look at the data revealed that according to the FY 2014/15 AHSPR, in just one year, Moyo’s population was reported to have dropped to approximately 140,000 with a corresponding increase in DPT3 coverage close to 50 percentage points (70%).

Figure 7: Have all the children in your family been fully immunised?



Source: U-report survey results
Total responses from Moyo and Zombo: 324

In spite of the pre-visit analysis, largely driven by available official statistics, evidence from the field clearly points to Moyo as a high performing district with committed district officials safeguarding the effective delivery of immunisation services. This conclusion is further corroborated by the results of a recent U-report³ poll (Figure 7), where 71% of respondents in Moyo claim that all the children in their family have been immunised, compared to 59% of respondents in Zombo.

3 U-report is a free SMS-based system that allows young Ugandans to speak out on what’s happening in communities across the country, and work together with other community leaders for positive change (www.ureport.ug).

High mobility of communities (fishing, farming in mountains, etc.) complicating catchment area estimations for each health facility notwithstanding, data inaccuracies threaten to compromise the effective delivery of national services by misleading national and local planning/budgeting efforts.

In terms of **negative attitude towards immunisation**, FDGs suggested that in the absence of universal health education services many mothers feel nervous when their children develop a fever after being vaccinated. Some community members believe that vaccines have detrimental side effects, ultimately deterring entire communities from immunising their children. Low male involvement and the fact that some mothers simply forget their children's immunisation appointments further contribute to low immunisation rates.

Finally, **supply side challenges** such as stock-outs of antigens and gas cylinders was noted as a demotivating factor for mothers. In the words of a health worker from Zombo, *"when a mother comes twice when the antigen is not here then they do not come back."* Further, long distances to health facilities or outreach posts and impassable roads severely constrain health workers from conducting outreach activities and limit beneficiaries' ability to reach health facilities. Time management of both health workers and beneficiaries was also identified as a key bottleneck, as long queues at health facilities often deter mothers from adhering to their children's immunisation schedule when they have limited time on their hands.

POLICY RECOMMENDATIONS

- i. Improve data accuracy and reliability of key performance indicators**
 - a) The Uganda Bureau of Statistics (UBOS) and the Ministry of Health (MoH) to ensure that district-level population projections are accurate and reliable.
 - b) Facilities managers to improve data reconciliation by having a separate immunisation registry for children from other catchment areas, and regularly updating other health facilities on the status of these children
- ii. Facilitate knowledge and best practices exchange between neighbouring districts as part of the Reaching Every District to Reach Every Child (RED/REC) strategy**
 - a) Local authorities and civil society to support knowledge sharing to capitalise on good practices at local level, i.e. Local-Local cooperation.
 - b) DHOs and Health Unit Management Committees to ensure that health workers do not fine and/or punish families that have lost their immunisation card, and support those who are behind in their immunisation schedule.
- iii. Utilise low-cost tools to mobilise communities and ensure timely attendance for immunisation appointments**
 - a) DHOs and facilities managers to further capitalise on strategic roles and influence of VHTs and local council leaders to mobilise communities.
 - b) VHTs to introduce peer-to-peer support – parents to remind each other of immunisation appointments, e.g. parents from the same village who attend first immunisation at the same time to remind each other of the next appointment.
 - c) Health workers to utilise Short Message Services (SMS) on mobile phones to remind parents about their next appointment – parents to register their own phone numbers or their neighbours' phone numbers during the first immunisation visit for health worker to contact them when they fall behind on their children's immunisation schedule.
- iv. Remove supply-side bottlenecks**
 - a) Facilities managers to closely monitor and ensure the availability of essential supplies such as antigens and gas cylinders.
 - b) MoH to provide facilities with affordable means of transport to facilitate immunisation activities, e.g. bicycles for HC-II or motorcycles for HC-III.

FOR ADDITIONAL INFORMATION:

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