NU Health: an assessment of whether results-based financing can strengthen governance and improve health outcomes in post-conflict Northern Uganda

The NU Health Programme

Northern Uganda Health or NU Health is a quasi-experimental, controlled trial designed to assess the costs and benefits of Results-Based Financing (RBF) relative to traditional Input-Based Financing (IBF) in delivering quality health care to vulnerable populations. As part of the UK aid funded Post-Conflict Development Programme in Northern Uganda and running from 2011-15, NU Health is among efforts that aim to generate evidence on how to strengthen local and national mechanisms for governance and accountability and to improve access to health and other social services.

Northern Uganda remains a fragile, post-conflict setting, still recovering from 20 years of humanitarian crisis following a protracted conflict between the insurgent Lord's Resistance Army (LRA), and Ugandan government forces. With the cessation of conflict in late 2006, the population began moving back to their land and rebuilding their lives. It has taken longer, however, to re-establish social services with access to nutrition and health services still wanting. Throughout the conflict and transition periods, health services were generally provided by local and international NGOs, particularly faith based organisations. As is frequently the case, the transition from humanitarian to development assistance has not been easy, and challenges remain around access, staff retention, quality of care, and the availability of essential medicines and health supplies (EMHS).

The preliminary research findings suggest:

1. RBF can improve the delivery of quality health services to poor and vulnerable communities in Northern Uganda.

2. Significant on-going capacity building support is required at all levels, particularly in the fragile post-conflict context.

The independent evaluation currently underway, as well as further evidence generated by the study will provide additional insight into whether and how RBF can contribute to strengthening health services in post-conflict settings such as this.

Results-Based Financing

By linking payments to achievement of defined performance targets, RBF aims to align the incentives of providers, purchasers and consumers of health services, to improve both health system effectiveness and efficiency. While conventional "input-based financing" focuses on getting key inputs in place, it does not address the issue of the "production process," and how inputs come together to create desirable outputs and outcomes. By contrast RBF provides an intuitively attractive proposition for using incentives to encourage health service providers to focus on health outputs and outcomes with the potential for increasing accountability. Though flawed, there is increasing evidence that performance incentives can improve both the demand and supply side aspects of health, by encouraging people to use health services and by stimulating improvements in the quality and quantity of services provided. It is worth noting that a relatively distinctive feature of both methods of financing, in the Northern Uganda context, is the autonomy given to health facilities in budgeting and fund use. Most public or philanthropic health service providers in Uganda receive earmarked budget lines or resources in kind.

Programme Model

NU Health consists of an RBF intervention group of 21 eligible private-not-for-profit (PNFP) health facilities in the Acholi sub-region of Northern Uganda, and a comparison IBF group of 10 PNFP in the neighbouring sub-region of Lango.

Facilities across the sub-regions were matched to ensure each group contained a set of facilities with similar characteristics,

aside from the financing modality. In both intervention and comparison groups, the programme supports a credit line with the Ugandan Joint Medical Store to ensure that all participating facilities maintain access to a steady supply of EMHS.

Monitoring performance

Independent verification of service provision in both regions is being provided by ten District Health Teams (DHTs). NU Health has provided capacity building support to enable them to fulfil this role. Where essential human resource gaps, such as district biostatisticians, have been identified, NU Health has supported recruitment and seconding to fill these gaps.

With NU Health support, DHTs monitor health facility performance associated with financing across a number of **Key Performance Indicators** (KPIs) in maternal and child health on a quarterly basis. Data collection measures changes in numbers of outpatient visits, as well as adherence to treatment algorithms. It also seeks to capture changes in clinical outcomes associated with improved care. The project also measures improvements in the general quality of care that facilities provide and the quality and timeliness of facility reporting. Facilities report data on service utilisation to the District Health Information System (DHIS2) on a monthly basis. Reported figures are then verified against physical records by staff of the DHT on a quarterly basis.

In the Acholi sub-region, quarterly payments to facilities are calculated on the basis of number of cases seen and the assessed quality of care provided. In the Lango sub-region quarterly payments are made independently of case-load and quality. Data from both sub-regions were assessed to explore the relationship between funding mechanism and improved health service performance. An independent evaluation of the NU Health programme is also being conducted.

A clinical audit and ongoing monitoring have generated some preliminary findings about programme impact after two years of implementation:

1. Findings to date suggest that implementation of RBF has led to some improvements in adherence to clinical guidelines by health care providers (see charts).

2. There is early evidence of a link between RBF and improved health service cost effectiveness.

3. Participating District Health Teams now have increased capacity to provide supportive supervision to participating as well as other health facilities in their jurisdiction with notable improvements in data management and results verification.

This evaluation will provide a rigorous external assessment of the programme and its contribution to improving health in vulnerable populations in Northern Uganda.

NU Health assesses performance in the quantity and quality of care provided by RBF intervention and IBF comparison facilities.

Performance to date

As the study approaches its final term, a number of different trends are observed at individual facility level and across different levels of care. With regards to quality, RBF facilities have averaged higher quality scores across all levels of care over the course of implementation, however IBF facilities at all levels of care have made greater incremental gains in quality performance since inception. It is worth noting that both groups of facilities have seen a change in the level of finance they receive due to their participation in the study as well as increased discretion in how they budget and use those funds.

In relation to case-loads, numbers of verified cases (averaged across all levels of care) have increased in both sub-regions over the first six quarters of implementation (across the 16 RBF indicators). When aggregated across all levels of care, there is little difference across the two regions, with numbers of verified cases in Acholi increasing by an average of 12% each quarter, and in Lango by an average of 11% each quarter. However, differences emerge at different levels of care, with the lowest level of facilities (Health Centre 2 or HC2) making the greatest improvements in Acholi (average quarterly increments of 27% over the course of implementation as compared to 3% in Lango), and the next level facilities (Health Centre 3 or HC3) the greatest improvements in Lango (average quarterly increments of 22% as opposed to 2% in Acholi). We recognise that an increase in case-load is not an end in itself, but in an extremely under-serviced area with a high burden of disease it is likely to lead to desirable outcomes if combined with quality care.

NU Health will continue to monitor facility performance against the parameters of the RBF formula to see how performance

trends develop throughout the remainder of implementation. Detailed analysis of programme performance figures will be conducted by the independent evaluation following programme completion in 2015.

Impact on clinical practice

Whether better performance against the RBF parameters amongst RBF facilities automatically translates into a better general standard of care requires further analysis. To examine this question in greater detail, NU Health has conducted the first of two Clinical Audits, to assess clinical practice and adherence to treatment guidelines for malaria, pneumonia and diarrhoea cases and during labour and delivery. The first audit suggested that there was discernible improvement after one year of implementation for some, but not all, clinical practices assessed by the audit, and that these changes were most noticeable in the RBF health facilities. The largest improvements were noted for management protocols for children under five presenting with pneumonia and diarrhoea.

Significant changes were also noted according to the sex of the child and level of health facility. For some aspects of the study, the sample size limitations yield trends toward significance but not statistical significance. Greater clarity may come with subsequent data collection and analysis in late 2014/early 2015.

The findings to date suggest that some positive changes have taken place and that some of these are likely to be related to the mechanism of payment. These findings suggest that the implementation of RBF has yielded some early improvements in adherence to clinical guidelines by health care providers. Closer scrutiny by data verifiers and incentivisation of specific practices are most likely contributing to this; however, this effect has yet to show meaningful results in improving all adherence to clinical guidelines – for example, monitoring during labour and delivery.

Additional work was undertaken into Value for Money of service delivery in the two study areas. These findings, though preliminary, provide some evidence that there is an association between RBF and improved health service cost effectiveness. This analysis, however, does not incorporate the significant costs of building the capacity of District Health Teams or managing funding to facilities, including the costs verification and counter-verification. The potential link between RBF and reduced user fees also implies that RBF can contribute to increased effective coverage for the poor and, thus, support the notion of universal health coverage.

"The increase in the number of patients has led to a higher workload among the staff"

Facility Director, New Life HC2, Acholi sub-region

Strengthening District Health Teams

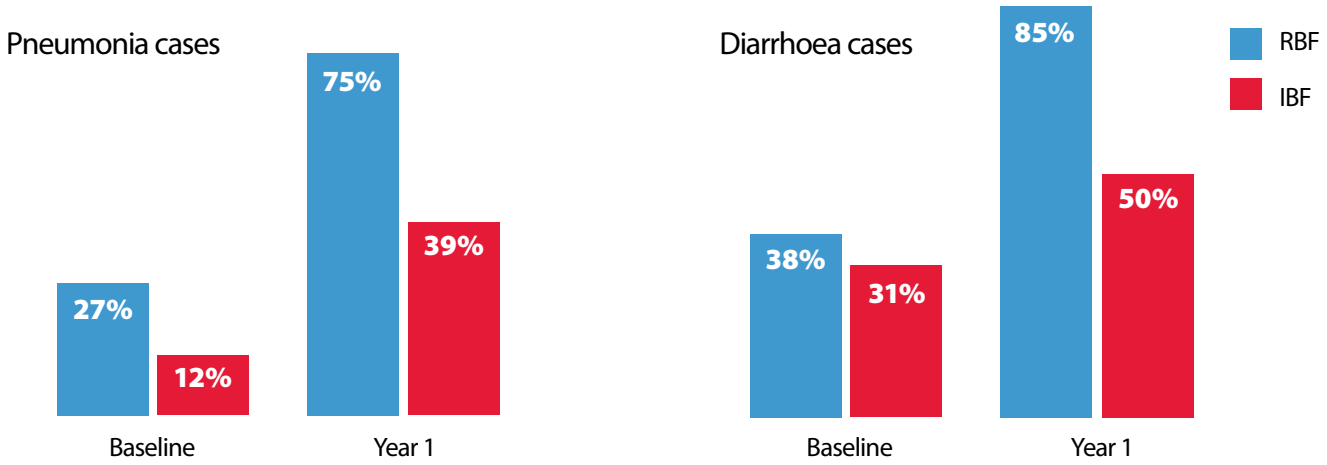
In addition to recorded improvements in service provision at facility level, it has been recorded that participating DHTs have notably improved their ability to collate data from facilities, and verify the reliability and accuracy of the data under the NU Health scheme. Through conducting regular assessment and verification visits, positive change has been noted in their capacity to provide supportive supervision to participating facilities, including:

- Spending more time with health facility staff,
- Undertaking a thorough review of critical services delivered,
- Analysing bottlenecks to improve quality,
- Discussing in a constructive way with HF staff how to address problems found, and,
- Proficiency in the use of the newly rolled out DHIS2.

Crucially, their participation is also serving to strengthen their regular monitoring and supportive supervision functions with all health facilities within their jurisdiction – not just those participating in the NU Health scheme. A number of DHTs have rolled out application of NU Health's quality assessment tool to public facilities.

After another year of implementation, NU Health will collect data to assess whether DHTs are improving their analysis of the data using DHIS2 for better planning and delivery.

Percentage of pneumonia and diarrhoea cases treated correctly in RBF vs IBF regions



Challenges

Northern Uganda is still a fragile, conflict-affected setting. There are therefore a range of challenges associated with delivering health services in general as well as introducing RBF in particular. The conflict-affected general population is not yet ready to demand for their health rights. At the facility level, capacity is still limited in relation to maintaining records and accounts in addition to improving clinical practice. Staffing shortages, including attrition to more desirable employment is a big problem, as are regular shortages of essential medicines and health supplies.

The DHTs face similar challenges with regards to human resources, capacity, finance and supplies. There remain challenges in attracting and retaining staff in key DHT positions due to the undesirability of some rural areas and high staff attrition – data management is a particular area of weakness. And, due to capacity limitations, expectations based on prevailing practice, as well as the basic challenges, DHTs require significant capacity building as well as long-term support to fulfil their regulator/validator functions.

Conclusion

Preliminary results generated by the NU Health programme suggest that RBF can support an increase in the delivery of quality health services to poor and vulnerable communities in Northern Uganda. The data suggest that linking performance to payment has incentivised adherence to treatment guidelines. RBF would appear to contribute to improved cost effectiveness, when the costs of managing RBF are excluded.

In fragile, post conflict Northern Uganda, at least, there is an apparent need for on-going organisational support at facility and District levels. Significant capacity building support is required at the individual, systems and institutional levels. Key issues relate to data management and accounting, supportive supervision and verification, and uptake of clinical best practices.

The independent evaluation underway will present a more robust view on the impact of different financing mechanisms on improving health in Northern Uganda. It may also generate lessons learned for future use or scale-up of an RBF approach, including an assessment of how different ways of financing health facilities generate changes in how those facilities manage their finance and their operations.

While RBF is by no means a magic bullet, interim observations suggest that it can support targeted improvements in key areas. The remaining period of programme implementation, data collection and analysis will generate additional insight into whether and how RBF can contribute to strengthening health systems and services in post-conflict, fragile settings such as that of Northern Uganda.

"There has been an increase in the number of patients accessing the facility... this is attributed to the improvement in services"

Facility Director, Light Ray HC2, Acholi sub-region

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The NU Health programme is funded with UK aid from the UK government in support of the Government of Uganda.

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FUNDED BY: UKaid from the British people

MANAGED BY: Health Partners International; Montrose

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