

NIGERIA**PROGRAM-FOR-RESULTS TO SUPPORT THE SAVING ONE
MILLION LIVES INITIATIVE****TECHNICAL ASSESSMENT REPORT**

March 31, 2015

1. **This Technical Assessment is broken down into the following sections:** (i) Strategic Relevance of SOML; (ii) Technical Soundness of the Program; (iii) Institutional Arrangements; (iv) Monitoring and Evaluation; (v) the Economic Evaluation; (vi) Assessment of Specific DLIs. The expenditure framework is discussed in Annex 1.

2. **Overview of Strategic Relevance.** SOML addresses the major health issues facing Nigeria where progress over the last two decades has been slow. Nigeria's ability to address the health MDGs is of global importance because it contributes disproportionately to global under-five and maternal mortality. SOML's relevance for Nigeria lies in the fact that it addresses almost 70 percent of the entire burden of disease. There is a strong rationale for Government intervention in those areas covered by SOML and this is discussed in detail in the economic evaluation section. The latter section also addresses the economic impact of SOML which would be expected to be large and positive.

3. **Overview of Technical Soundness.** SOML emphasizes a series of maternal and child health and nutrition interventions that are highly cost effective (see Economic Evaluation). These interventions also turn out to have very strong evidence of effectiveness based on multiple randomized trials. SOML takes as its point of departure the limited progress that Nigeria has made on delivering these services to broad swaths of the population and rightly emphasizes the importance of both increasing coverage and improving the quality of care. The latter has not garnered much attention previously but is clearly a serious issue. The technical soundness of the SOML approach, which emphasizes a focus on results, strengthening accountability, and encouraging innovation, can be discerned from those recent initiatives in Nigeria which have achieved good results.

4. **Overview of Institutional Arrangements.** There is broad support for SOML both inside and outside Government. A PEIA was undertaken which has pointed out the complex institutional relationships particularly at State level and below. Consolidating State-level authority for PHC in one entity ("PHC under one roof") is a necessary but not sufficient condition for success. The experience in UBEC (basic education) is likely not one worthwhile replicating. Tracking budgetary flows is challenging but some progress should be possible towards having consolidated budgets.

5. **Overview of Monitoring and Evaluation.** Up until recently the health system in Nigeria suffered from a dearth of reliable and timely information. This was particularly true when it came to data that was sufficiently disaggregated to provide management information at State level. Thus, SOML's focus on improving data availability and quality is entirely appropriate. The recent progress on expanding SMART surveys and introducing health facility surveys reflects the Government's willingness to improve the M&E systems for SOML. While the routine health information system has been getting considerable attention it faces some challenges that make it inappropriate to use for evaluating progress on DLIs 1 and 3. Collecting robust and useful information on DLIs 1 and 3 will require the use of annual SMART surveys and annual health facility surveys with appropriate care given to quality assurance.

6. **Overview of Economic Evaluation.** Health care financing in Nigeria is mostly out-of-pocket and only a modest increase in public expenditures in health is expected over the next few years. There is a strong rationale for public investment in SOML arising from: (i) the public goods

nature of many of the interventions prioritized under SOML: (ii) the allocative and technical efficiency of the SOML interventions, including their cost-effectiveness; (iii) the equity enhancing nature of SOML; and (iv) the insurance market failures that SOML will help address. The economic impact of SOML is expected to be substantial and will arise from the direct micro effects of improved maternal and child health which will enhance human capital formation. It will also be aided by hastening the demographic dividend Nigeria could enjoy if it goes through a rapid fertility transition. The financial sustainability of SOML, if it is successful, is not a serious concern because its incremental cost is only US\$0.71 per capita per year. The Government could easily use some of its existing budget allocations in a more results-based way.

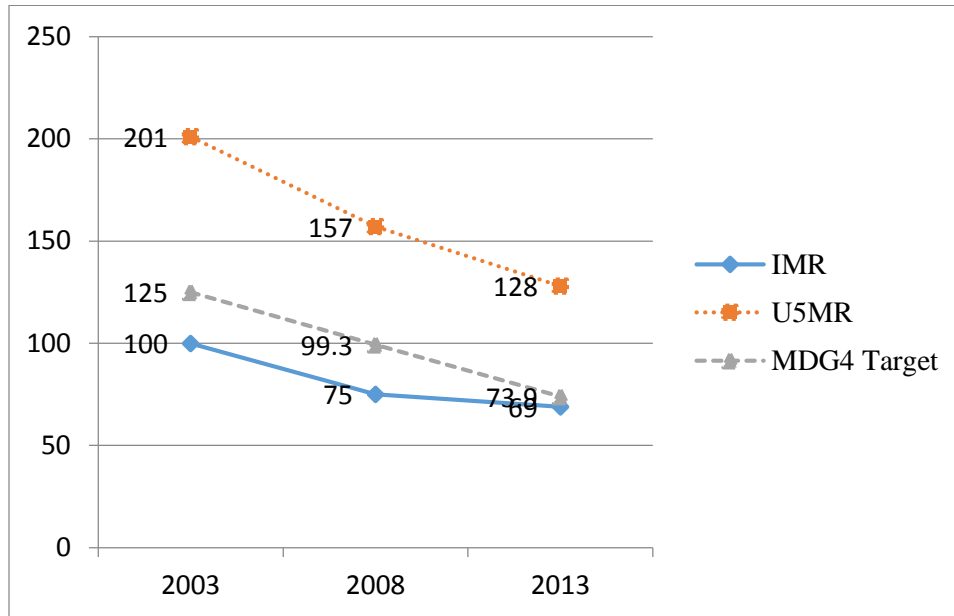
7. Experience with Results-Based Incentives to sub-National Governments and Innovation Funds. DLIs 1 and 2 involve financial incentives to States based on their performance. The experience in Nigeria and globally is that such incentives can be successful if a few conditions are met; (i) the criteria for releasing the disbursements are clear and objective; (ii) they are within the span of control of the Government; (iii) achievements are measured fairly and transparently; (iv) sub-national Governments can use the funds flexibly and have sufficient autonomy. The proposed disbursements under the PforR meet these criteria. Similarly the experience with learning and innovation funds emphasizes the importance of: (i) clear selection criteria; (ii) transparent and fair selection process; (iii) proper grant management; and (iv) designing evaluation and learning right from the start. The innovation and learning funds proposed under DLI 4 takes these lessons into account.

I. Strategic Relevance of SOML

8. Improvement in U5MR and IMR. Over the last decade the trend in health, nutrition, and population (HNP) outcomes in Nigeria is mixed. Data from the last three Nigeria Demographic and Health Surveys (NDHSs)¹ demonstrates a 36 percent decline during this period in the under-five mortality rate (U5MR) and a 31 percent decline in the infant mortality rate (see Figure 1). While the country is still not on track to achieve MDG4, these improvements are considerable. Given the slow progress on service delivery (see below) it is an interesting question why Nigeria has made progress on U5MR and IMR. It is possible that the decrease is due to increased access to anti-malarial drugs and antibiotics that has come about due to the expansion of the private sector even into remote rural areas. Increases in ITN coverage may also play an important role.

¹ The use of NDHS data, collected by the National Population Commission, allows for a consistent methodology over time and facilitates cross-country comparisons. The data are also recent.

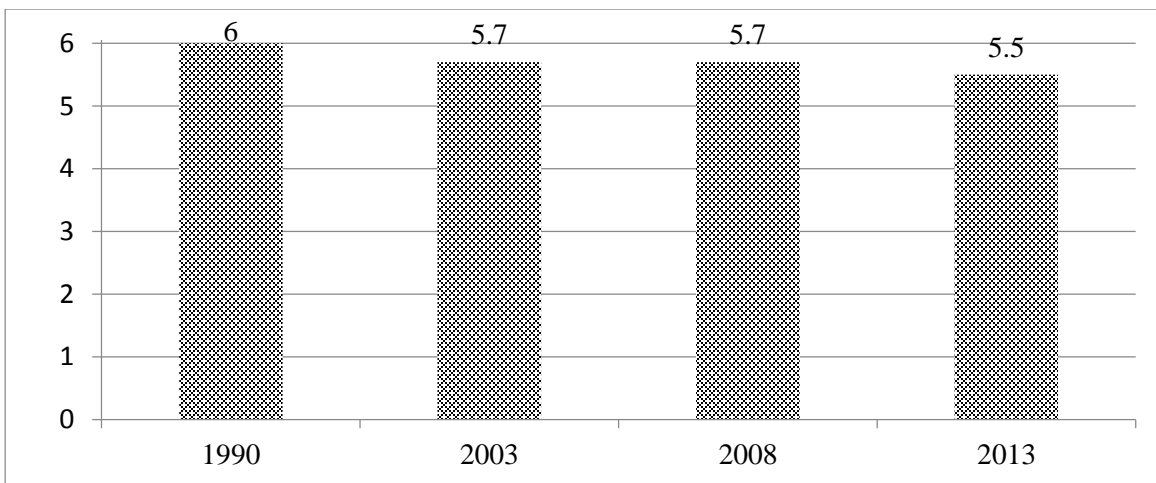
Figure 1: Trends in U5MR and IMR (per 1000 live births)



Source: NDHS.

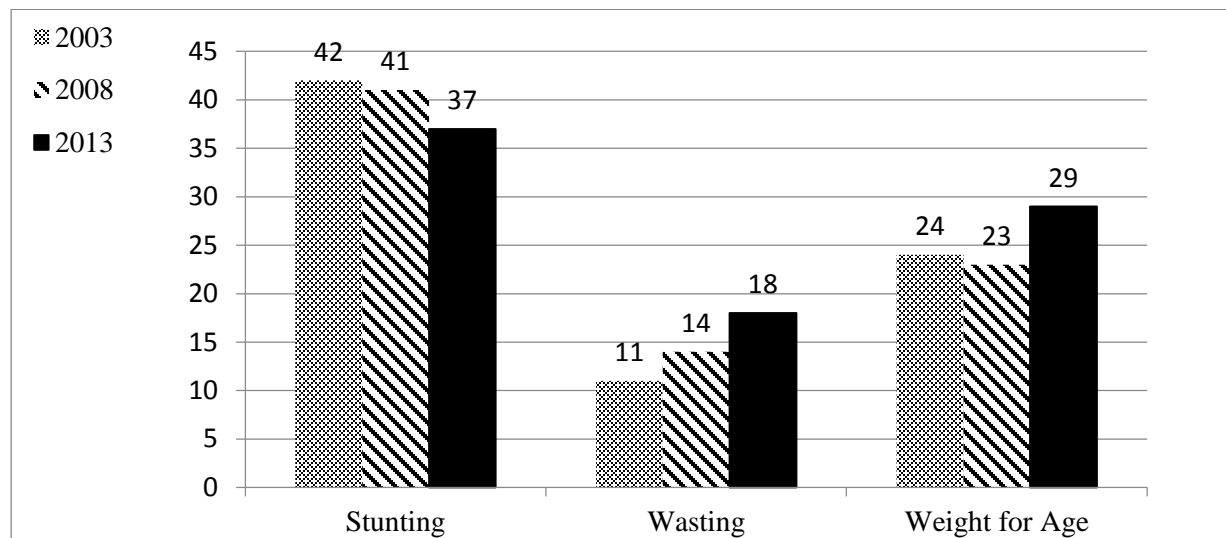
9. **There Has Been Little Improvement in Other Health Outcomes.** There has been almost no progress on reducing maternal mortality (MDG5) which has plateaued at about 550 per 100,000 live births according to the NDHS. Fertility remains stubbornly high and has changed less than 10 percent in the last 25 years (see figure 7). Childhood malnutrition, during the last decade (see figure 8), has actually worsened by some measures (low weight for age has increased by 21 percent and wasting has increased 64 percent) and improved only modestly (12 percent) in terms of stunting (low height for age).

Figure 2: Total Fertility Rate 1990 to 2013



Source: NDHS.

Figure 3: Nutritional Status of Children Under Five (%) 2003-2013



Source: NDHS.

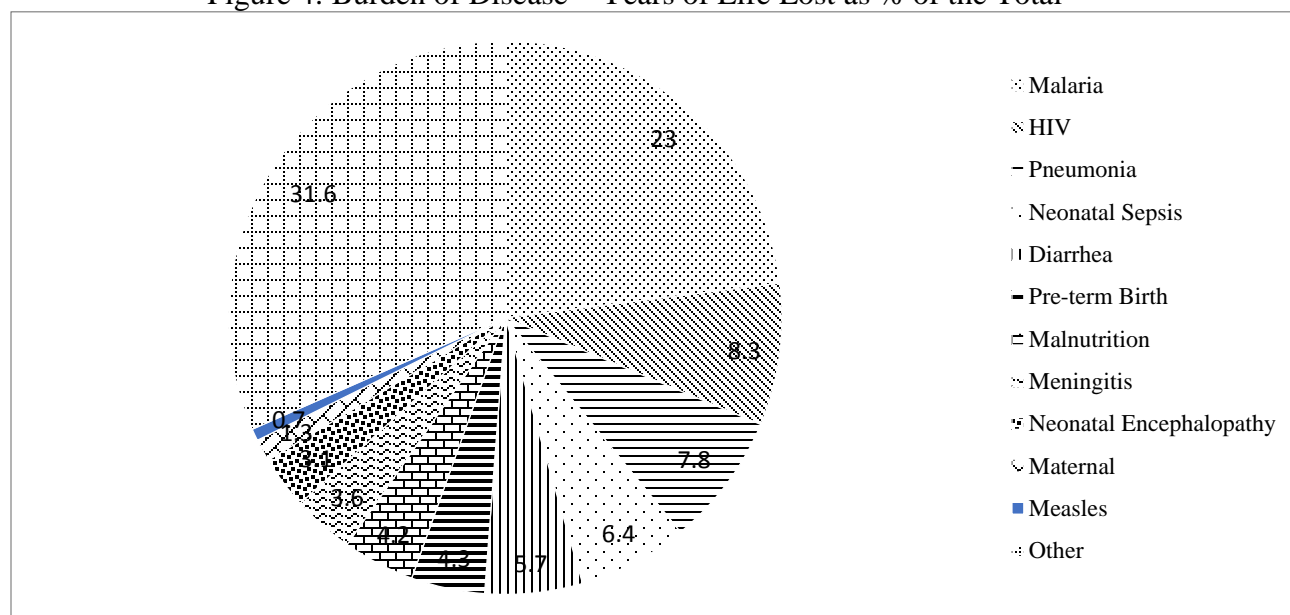
10. Nigeria Contributes Substantially to Global Under-Five and Maternal Mortality. Nigeria's ability to address under-five and maternal mortality will affect global progress towards MDGs 4 and 5. Nigeria contributes 14 percent of all maternal deaths globally, second only to India at 17 percent.² Similarly, Nigeria accounts for 13 percent of all under-five deaths globally, again second only to India at 21 percent.³

11. SOML Addresses the Largest Part of the Burden of Disease and the most Lives Lost. The burden of disease (BOD) in Nigeria remains primarily due to infectious diseases although there is some evidence that the country is slowly going through an epidemiological transition. Through its focus on improving maternal and child health, SOML addresses the most common causes of premature death in Nigeria. Its six pillars target infectious diseases, maternal and neonatal complications and nutrition deficiencies that together account for nearly 70 percent of total years of life lost (YLL) according to a recent study. This may overstate the case a little as the children only represent a portion of the BOD due to HIV. Nonetheless, SOML targets 9 of the top 10 causes of premature loss of life in Nigeria (see Figure 9).

² WHO, UNICEF, UNFPA and The World Bank, Trends in Maternal Mortality: 1990 to 2013, WHO, Geneva, 2014.
- See more at: <http://data.unicef.org/maternal-health/maternal-mortality#sthash.a1DshUTs.dpuf>

³ United Nations Inter-agency Group for Child Mortality Estimation (IGME), UNICEF: Committing to Child Survival: A promise renewed-Progress report 2014, <http://data.unicef.org/child-mortality/under-five>

Figure 4: Burden of Disease – Years of Life Lost as % of the Total



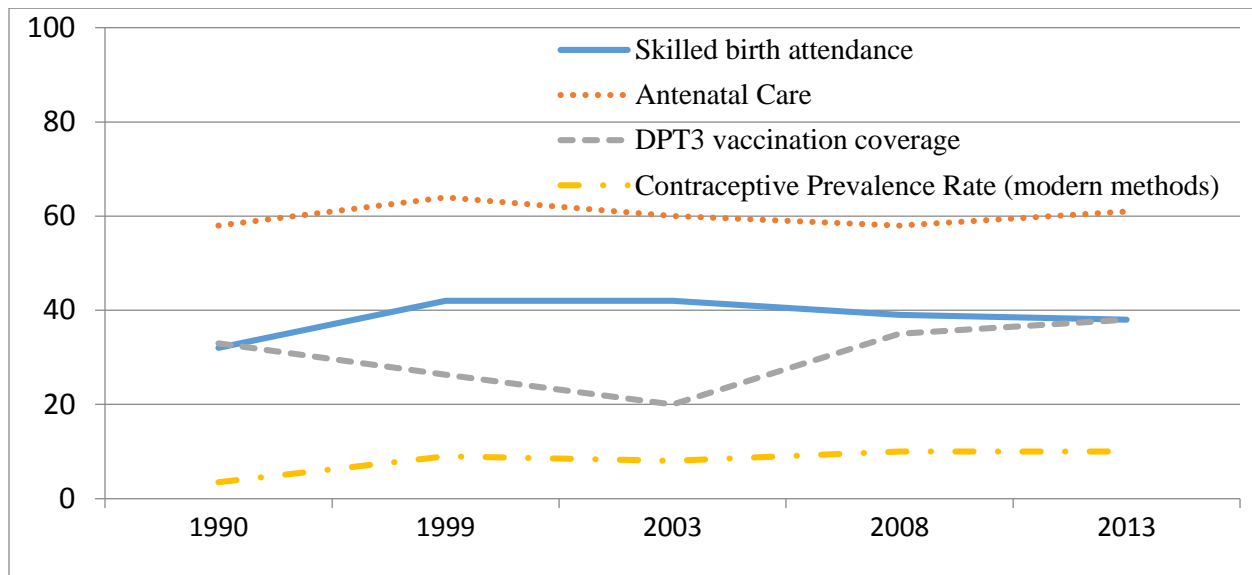
Source: Institute for Health Metrics and Evaluation – Global Burden of Disease Study – 2010.

II. Technical Soundness of SOML

12. **Limited Progress on Health Service Delivery.** The limited progress on HNP outcomes observed in Nigeria is consistent with the picture in service delivery (see Figure 10). Over the last two decades the coverage of key health interventions has stagnated at low levels. The lack of progress on services such as family planning, antenatal care, and skilled birth attendance militates against achieving MDG5 and makes it hard to argue that Nigeria has made much progress on reducing MMR.

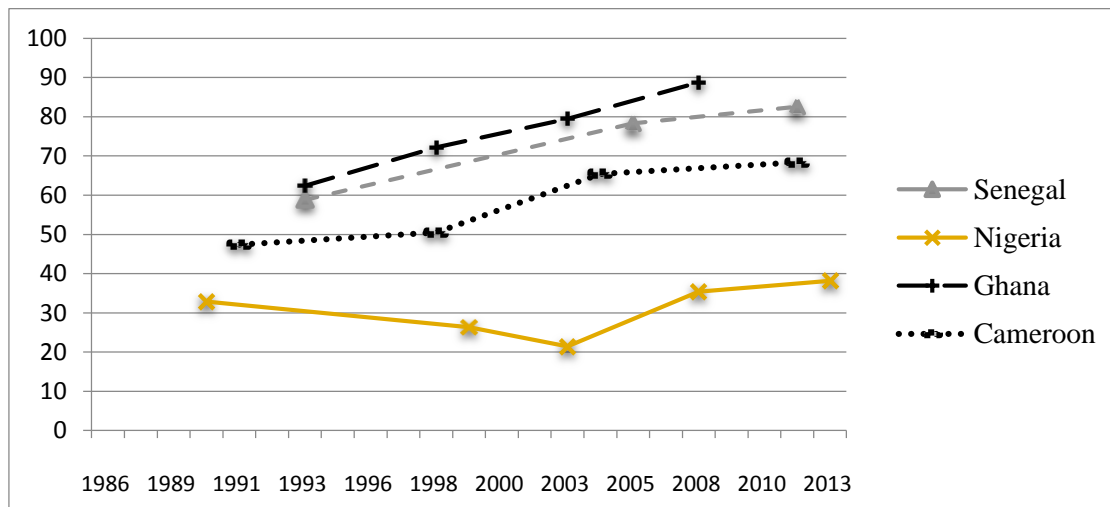
13. **Nigeria is Doing Less Well than its Neighbors.** Progress on service delivery in Nigeria generally has been slower than in some of its larger neighboring countries. For example, in looking at immunization coverage as estimated by Demographic and Health Surveys it appears that Nigeria has significantly poorer results than countries like Senegal, Ghana, and Cameroon. It has also made slower progress over the last 25 years even though it started at a lower base (see figure 11).

Figure 5: Coverage (%) of Key Health Services 1990-2013



Source: NDHS.

Figure 6: Trends in Immunization (DPT3) Coverage (%) in Selected West African Countries



Source: Demographic and Health Surveys.

14. **Quality of Care is Low.** The limited coverage of important interventions is further aggravated by poor quality of care. Results from the Bank-supported Service Delivery Indicators (SDI) Survey indicate that many health workers perform poorly on standardized tests of knowledge and lack the skills to effectively treat common and important ailments in children or mothers (see Figure 12). Of particular concern is that the cadre of health workers who provide primary health care in public health centers have limited knowledge of how to handle common diseases such as malaria, pneumonia, and diarrhea. SDI results indicate that Nigeria does a little better than Senegal

but less well than other large countries in Sub-Saharan Africa in terms of the knowledge and skills of its health workers (see Table 11).

Figure 7: Knowledge and Skills of Health Workers – SDI Survey 2013

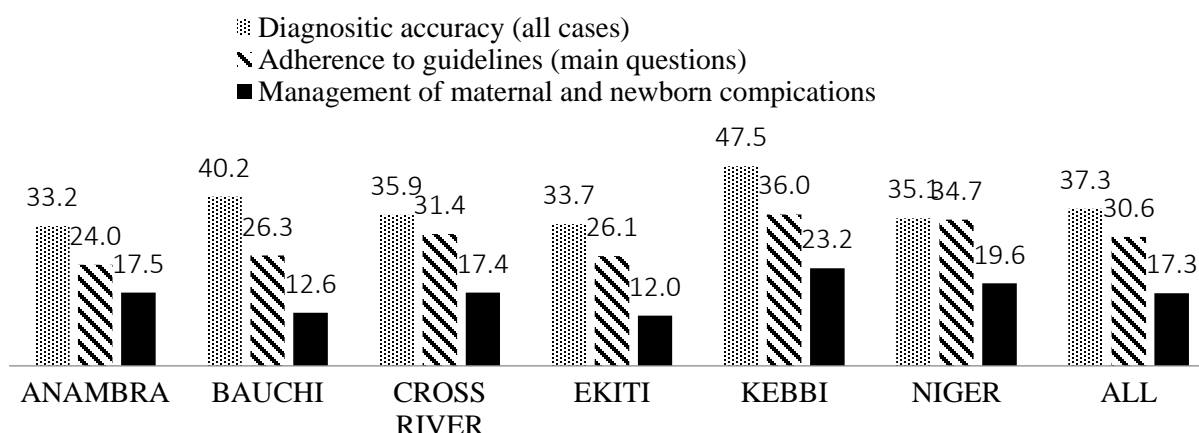


Table 1: Knowledge & Skills of Health Workers Compared to Other Countries in Africa

	Kenya	Nigeria	Senegal	Tanzania	Uganda
Diagnostic accuracy	74%	36%	34%	57%	58%
Adherence to clinical guidelines	43%	31%	22%	35%	35%
Correct manage maternal and neonatal complications	44%	17%	--	--	20%

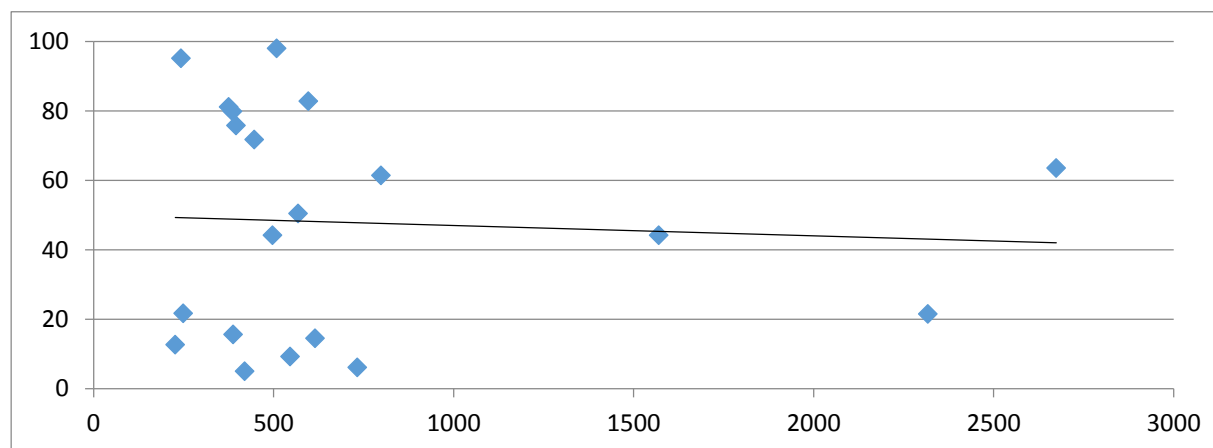
Source: Service Delivery Indicators (SDI) Survey 2013.

15. **What Things Have Seemed To Work And Why.** While the rate of progress of PHC services in Nigeria has been slow, the situation is by no means bleak. Some recent experiences in Nigeria suggest means of improving health system performance. It is also important to understand what does NOT explain the slow progress.

16. **Input-Related Problems Explain Little of the Problem.** Issues that are important in other parts of Africa do not seem to explain the slow progress of the health sector in Nigeria: (i) lack of funding: while public expenditure on health is low compared to GDP and total budget, funding alone does not appear to have much influence on service delivery. There is no correlation between State level expenditures in health and health outputs such as skilled birth attendance (see figure 13); (ii) lack of inputs such as drugs: while there is clearly a shortage of medicines in primary health centers, the SDI survey also found no correlation between drug availability and patient volume; (iii) lack of infrastructure: 67 percent of the population live within 30 minutes' walk of a health facility, 85 percent live within 1 hours walk (LSMS 2010/11). This compares favorably to neighboring countries; (iv) shortage of health workers: the ratio of health worker to population is substantially higher than neighboring countries (it is twice the sub-Sahara African average) and many health facilities are actually over-staffed.

17. Recent Experience with PBF Gives Some Hints about what Might Work. Performance-based financing (PBF) was introduced in three pilot LGAs three years ago as part of the Bank-funded Nigeria State Health Investment Project (NSHIP). Under PBF, individual health facilities (both public and private) are provided cash payments (through electronic transfer to their bank accounts) based on the quantity and quality of key maternal and child health services they provide. The facilities have considerable autonomy in how they use the cash including for physical upgrading, buying drugs, and providing monetary incentives to staff.

Figure 8: Real per Capita Health Expenditure (Naira) and Skilled Birth Attendance (%)



Source: World Bank Analysis from State PEMFAR/PER/PEFA Reports and NDHS 2008.

18. Example of How PBF Works. In the example described in table 12, if a health facility fully immunizes 50 children in a quarter, they could earn US\$100 (100 x US\$2 per child fully vaccinated). In PHC facilities under NSHIP there are in fact 20 specific services that are incentivized. The total amount would be adjusted for the remoteness or difficulty of the facility (equity bonus), since urban or peri-urban facilities could earn a disproportionate amount. In the example below, this particular facility would earn 25 percent more because of the difficulties it faces. The total would also be adjusted by a quality score based on a checklist administered at the facility every quarter. This facility would earn 50 percent times 25 percent of its quantity payment. Facilities can use the funds for: (i) health facility operational costs (about 50 percent), including maintenance and repair, drugs and consumables, outreach and other quality-enhancement measures; and (ii) performance bonus for health workers (up to a maximum of 50 percent) according to defined criteria.

Table 2: Example of How PBF Works at Health Facility Level Under NSHIP

<u>Service</u>	Number Provided Last Quarter	Unit Price	Total Earned
Child fully vaccinated	50	US\$2	US\$100
Skilled birth attendance	60	US\$10	US\$600
Curative care patient visit	1,800	US\$0.5	US\$900
Sub-Total			US\$1,600
Remoteness (Equity) Bonus	+25%		US\$2,000
Quality bonus	Score (50%) x 25% of volume		US\$200
Total			US\$2,200
Use of Funds			
Drugs and consumables			US\$500
Outreach expenditures			US\$250
Repairs & maintenance of health facility			US\$150
Bonuses to staff in the facility			US\$1,100
Savings			US\$200

19. **Initial Evaluation of PBF.** A recent household survey comparing the three PBF LGAs with nearby control LGAs that did not implement PBF found some important results. After controlling for socio-economic variables, contraceptive prevalence, antenatal care, and utilization were significantly higher in the PBF LGAs (see Figure 14). Routinely collected data also suggests large improvements in service delivery in PBF facilities (see Figure 15). The cost of PBF has been modest, about US\$1.20 per capita per year, meaning that it has leveraged existing investments and is scalable given the available fiscal space. PBF has now been scaled up to 27 LGAs.

Figure 9: Household Survey Results Comparing PBF Pre-Pilot LGAs with Control LGAs

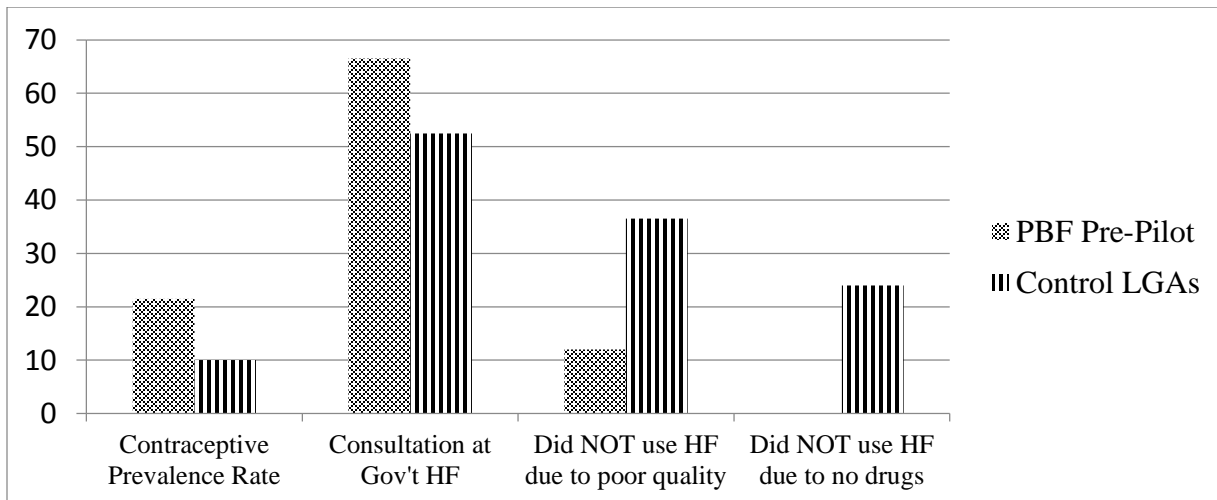
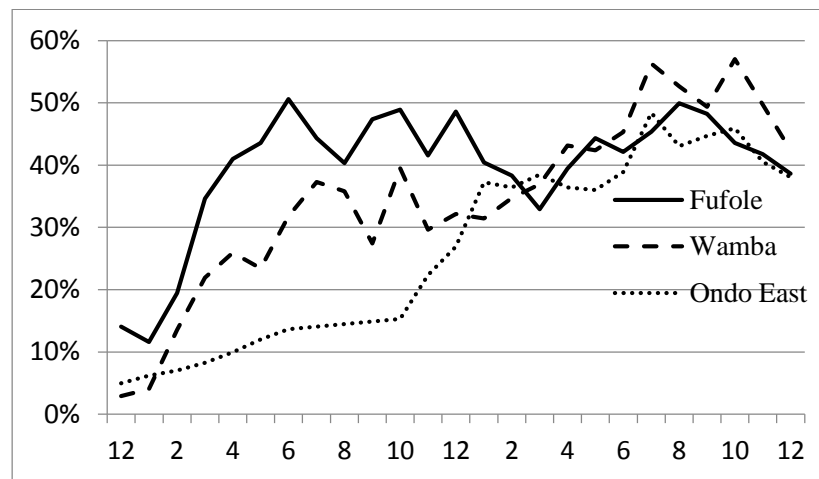


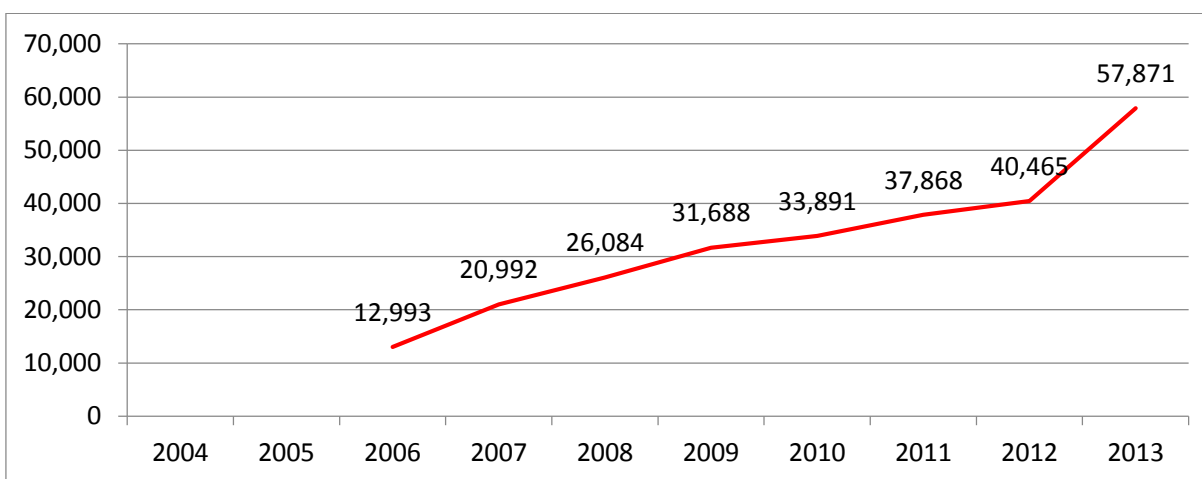
Figure 10: Coverage of Institutional Delivery in PBF Pilot LGAs since Dec. 2011



20. **Factors for Success and Lessons Learned.** The success of PBF thus far appears to be due to a number of factors, including: (i) it provides a clear signal to health staff about what is important; (ii) it rewards staff for their efforts; (iii) it provides legitimate operating funds at health facility level, something they have rarely, if ever, had before; (iv) it gives health staff, particularly the officer in charge, substantial autonomy and this gives them the opportunity to innovate; and (v) it has substantially strengthened supervision. PBF has also faced a few challenges that are instructive, including: (i) delays in payment have a very deleterious effect on performance; (ii) the quality of management at facility level appears to be a constraint that needs to be addressed; and (iii) the system is dependent on robust assessment of performance that is independent.

21. **EMTCT has Made Significant Progress.** Another seeming success Nigeria has enjoyed is in HIV where prevalence and the estimated number of new infections has been declining. Of note has been the increase in the number of HIV positive mothers who have been benefiting from anti-retroviral therapy to prevent mother to child transmission (see figure 16). The improvements have been faster than in other areas of mother and child health and may be due to: (i) the use of non-governmental “implementing partners” by PEPFAR, the Global Fund and support of NGOs under the Bank-financed HIV project; (ii) the fact that implementing partners have worked with public sector facilities to improve performance; and (iii) that State AIDS control agencies (SACAs) appear to have been strengthened.

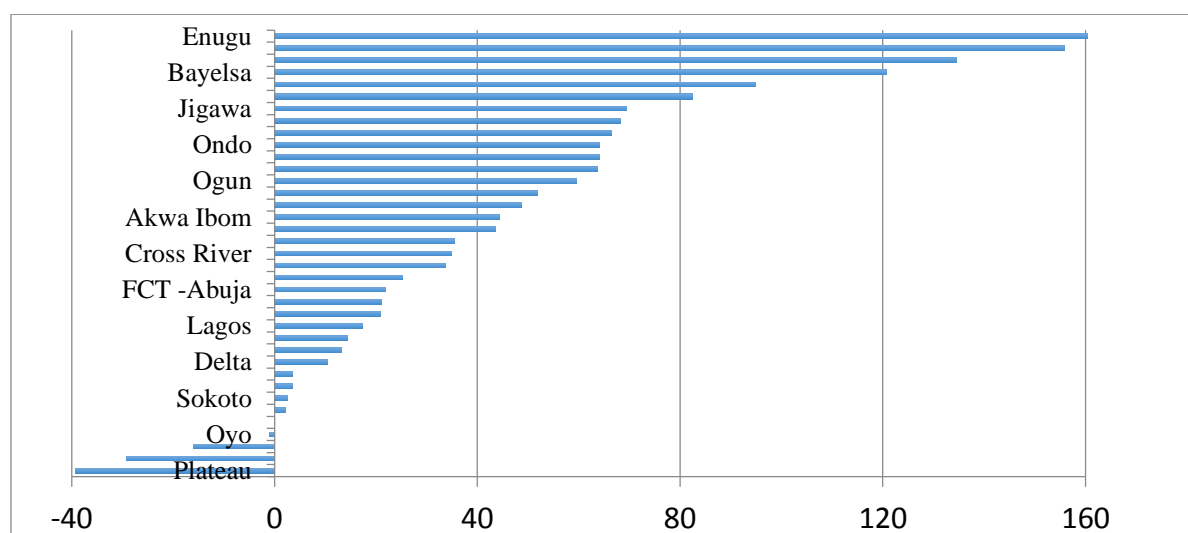
Figure 11: Number of HIV + Women Receiving ART for EMTCT



Source: UNAIDS 2014.

22. **Some States have Performed Very Well.** There are wide variations in the performance of States over the last few years. An analysis of changes in 8 different MCH services from 2008 to 2013, based on the NDHS indicates that there is a very large variation in the extent to which performance has improved (see figure 17). Importantly, baseline level of performance does NOT appear to be a predictor of success. Also the most improved States come from all over the country and are NOT concentrated in any particular geopolitical zone. For example, Enugu has not suffered from security challenges but two other high performing States, Adamawa and Bayelsa, have been affected by conflict. An ongoing analysis is examining predictors of success but the wide variation in performance itself suggests that State governments can influence key PHC service delivery even in the current context.

Figure 12: Change in 8 Maternal and Child Health Indicators by State, 2008 - 2013



Source: NDHS.

III. Summary of Political Economy and Institutional Assessment

23. **There is Widespread Support for SOML.** SOML was inaugurated by the President in October 2012. There appears to be widespread support for SOML, and PHC more broadly, throughout the country. The FGON has increased its health budget substantially in the last four years and there has been a recent effort through the “Health Bill” to ring fence funds for PHC. The NHSDP also supports much of the SOML approach explicitly.

24. **Complex and Fragmented Institutional Arrangements for Delivering Public Sector Health Services.** The public service delivery system in Nigeria is characterized by overlapping and unclear institutional arrangements.⁴ Although Local Governments are supposed to provide primary health care (PHC) service, Federal, State and local Government all play roles in the financing and delivery of services. PHC staff are employed by LGAs who have also been responsible for funding the operating costs of the PHC system. The weakness of LGA financial reporting and the range of additional State and Federal Programs for PHC means that it has been in general impossible to make an accurate consolidated assessment of the resources used for PHC. At the same time, because most of the spending on PHC is directed through either the Federal or local Government, State Ministries of Health have had little capacity to manage the PHC system, affect overall spending, or manage the deployment of resources across the State. Almost no financial resources are directly managed at the primary health facility level, except in some States where Drug Revolving Funds (DRFs) have been established or where user charges are collected.

25. **Federal Government Plays an Important Role in PHC.** It is estimated that the Federal Government contributes about 22 percent of all the funding for PHC. These resources are often supplied in kind, such as the provision of commodities, vaccines and specialized drugs for HIV and Tuberculosis, and technical support to the States and LGAs. In addition, the FGON has a number of special schemes to support PHC, including activities under the National Primary Healthcare Development Agency (NPHCDA) such as (i) the Midwife Service Scheme (MSS) which pays the salaries and support costs for the deployment of many thousands of midwives to under-served rural areas; (ii) the Subsidy Reinvestment and Empowerment Program (SURE-P) which provides support, inter-alia, for infrastructure, development of human resources, and a conditional cash transfer Program; and (iii) the MDG Fund which supports the construction of additional health facilities among other things and relies partly on counterpart funds from the States.

26. **Efforts are Underway to Simplify the System.** The FGON, through the NPHCDA, has been promoting the establishment of State Primary Healthcare Development Agencies (SPHCDA) as a way of consolidating the management of the PHC system at the State level. Twenty-four out of 36 States have established SPHCDA, but the extent to which PHC system staffing and finance have been consolidated under the SPHCDA varies greatly between States.

⁴ The Bank has carried out recent in-depth studies of the structure of primary health care in Nigeria as well as governance more broadly, including: (i) Political Economy and Institutional Assessment for Results-Based Financing for Health, 2011; (ii) Nigeria: Improving Primary Health Care Delivery: Evidence from Four States, 2009; and (iii) The Politics of Policy Reform in Nigeria Peter Lewis and Michael Watts October 2013.

27. **Accountability Mechanisms are Weak.** It is not surprising given the complex institutional set up that accountability mechanisms are weak. Because funding and other resources come from diverse sources, and fund provision is unpredictable and often unrelated to budgets, managers in the PHC system are not held accountable for results. Except where functions have been consolidated under the SPHCDA there is no central point of accountability for the State PHC system as a whole.

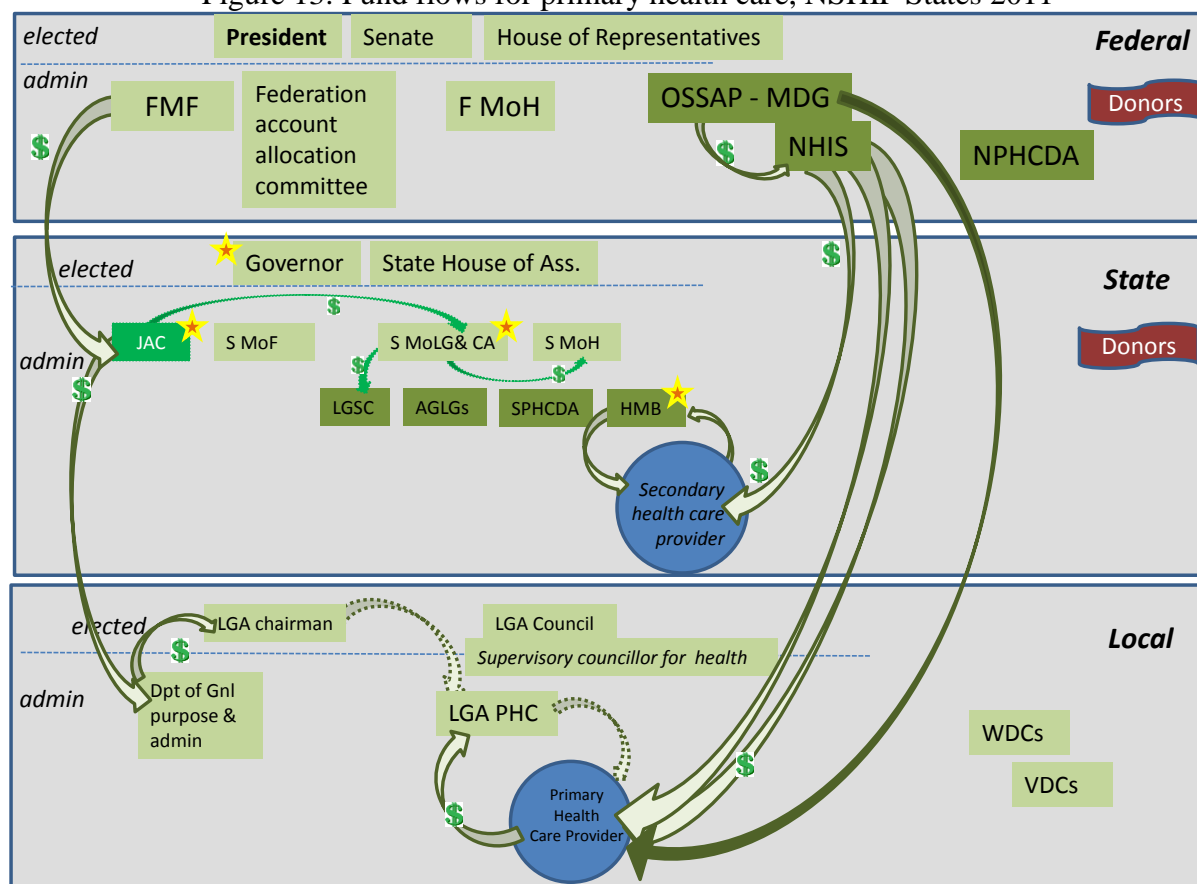
28. **Incentive and accountability reforms in NSHIP States.** Compared to 2011 study, review of experience in the NSHIP States, found that both the process of transferring management of the PHC system to the SPHCDA and the PBF pilot had contributed to at least a potential strengthening in the accountability relationships through the system. PBF has created an accountability link from the PHC facility to facility users, strengthened the relationship with the community (through the ward committee) which may have some accountability benefits, as well as encouraging stronger supervision from LG PHC Departments.

29. **Strengthening SPHCDA may be a Necessary but not Sufficient Condition for Success.** It appears plausible that transfer and consolidation of PHC services under SPHCDA is likely to be a necessary, but not sufficient, condition for achieving significant system improvement. The suggestions that emerge include:

- (i) Potential actions to be supported through DLIs should focus on ensuring the effective functioning of key management systems, and could potentially include: (i) the completion of the transfer of management and budgeting of PHC services to the SPHCDA; (ii) the implementation of agreed supervision plans; (iii) the collection and use of monitoring information; and (iv) the execution of agreed budgets, focusing in particular on the provision of non-staff operational funding.
- (ii) Selection of performance rewards (monetary and non-monetary) and pilot accountability mechanisms at different levels of the health system: Additional individual monetary rewards beyond a nominal level should be restricted to staff at the facility level under PBF arrangements. Non-financial incentives in terms of recognition, and the provision of resources to improve service provision, should be the principal rewards at higher levels of the system.
- (iii) Approaches to design of the Innovation Fund: Important to draw a distinction between the use of a prize fund approach in order to encourage genuinely new and innovative ideas, and the provision of support to funding the roll out of established approaches (such as PBF or the completion of the transfer of functions to SPHCDA). There is likely to be a case for supporting both types of measure but different forms of support would be required to do this.

30. **Finance for PHC – Flow of Funds and Bottlenecks From the 2011 Study.** The 2011 study identified the flow of funds for PHC in the three States, as summarized in Figure 18.

Figure 13: Fund flows for primary health care, NSHIP States 2011



Source: OPM (2011).

31. **Factors Affecting Funds Flow to Facilities.** The key bottlenecks in the flow of funds to PHC facilities were: (i) the release of funds by the FAAC to State and LG Joint Accounts, made in accordance with a fixed formula but dependent on receipts from oil sales; (ii) the release of funds by the JAC to LGAs, nominally controlled by the SMO LG, but in practice subject to direct influence from the Governor; (iii) decisions on the allocation between sectors of funds received by LGAs, made by the F&GPC but subject to direct influence from the LG Chair. Because there was no earmarking of financial transfers between levels of Government, funding for PHC ultimately depended on decisions about priorities made at LG level in response to extremely uncertain releases of funds to LGAs. The decision process at LG level was extremely opaque and lacked any systematic reporting, let alone being subject to effective accountability against budgets. Since delays in salary payment were likely to have an immediate political cost, salaries were prioritized and the burden of fluctuations in resources fell on operational and capital spending. Where there were DRFs these provided some level of resources under facility control and subject to some community accountability. Capitation payments under the NHIS-MDG Program potentially provided resources under facility control in Ondo, but in practice expenditure decisions were still made at State level through the SIC.

32. **Changes in Health Financing.** Although the process of transfer of financing and functions to SPHCDA is ongoing with the result that a process of consolidation of PHC financing

is taking place, considerable challenges were encountered in obtaining financial data to provide any clear picture of funding trends for PHC. The problems of overall fiscal management resulting from revenue uncertainty are reflected in the fact that revenue performance varied from 128 percent of budget in 2011 to 54 percentage in 2013 in Nasarawa, and from 67 percentage of budget in 2011 to 90 percent in 2012. Only 65 percent of the budget was executed in Nasarawa in 2012, and 52 percent in 2013. Information on expenditure out-turns in Ondo was only available for two years (2010 and 2012) since 2009, where budget execution increased from 52 percent to 108 percent (although total expenditure increased), because of a sharp reduction in budgeted spending. Overall, there does not yet appear to have been progress in moving towards more realistic budgeting. However, the consolidation of all PHC spending in SPHCDA provides some hope both that information on PHC expenditure will be more transparent and better managed to focus on priorities. In comparison to the financial flows in 2011 described earlier, the changes that are taking place in the NSHIP States are the following:

- (i) The role of the SMoLG and of LGAs in decision-making on PHC spending is ending, except to the extent that an LGA may decide to put additional resources into the sector beyond the core spending managed through the SPHCDA.
- (ii) Since the SPHCDA budget comes under that of the SmoH, there should now be a single consolidated State health sector budget, with management of PHC expenditure consolidated under the control of the SPHCDA. This process should greatly increase transparency, accountability and remove the lowest level bottleneck to financial flows. In addition to the changes resulting from the consolidation of PHC functions under the SPHCDA, in facilities where PBF has been implemented, an additional direct flow of funds under the control of the facility has been established.

33. Comparison with UBEC. A comparison may be made of the consolidation of PHC spending under the SPHCDA with the establishment of the State Universal Basic Education Boards (SUBEB) in the education sector.^[1] In the education sector, the Universal Basic Education Commission (UBEC) manages the Intervention Fund, a source of Federal Government funding for basic education. Grants from this Fund are distributed annually to all States that are able match UBEC funding for the infrastructure component (on a 50-50 basis) via the SUBEB. The majority of basic education funding is transferred to the service delivery points (e.g., schools) via SUBEBs, who are responsible for managing both salary and non-salary education spending. Salaries are deducted from LGA allocations each month and these funds are transferred to SUBEBs for onward transfer to personnel, including teachers. The State Ministries of Education (SMoE).

34. Funds for Basic Education Flow from Three Distinct Channels: (i) direct Federal funding from the UBEC to the SUBEBs, (ii) State resources, including matching funds for the UBEC infrastructure component, and (iii) LGA budgets. UBEC funding is transferred directly to the SUBEB, which utilizes the funds without any involvement of the SMoE. Matching funds from the State to the SUBEBs (and allocations for other implementing agencies) are provided for under the SMoE capital budget. The UBEC Program has significantly expanded the role and responsibilities of the Federal Government in the funding of basic education and is a potential source of tension between State Governments and UBEC. The matching fund system, the way it

^[1] This discussion is based on OPM (2014).

is structured, does provide an incentive for State Governments to increase spending on basic education, but in recent years the number of States qualifying for matching funding appears to be falling.

35. **Some States Find the Federal Government's Conditions Overly Stringent as They Substantially Reduce State Autonomy and Flexibility in Strategic Planning for the Education Sector.** In addition, States are also concerned that the parallel management system is inefficient. Importantly, UBEC funds are not tied to improved results or improved measurement of educational outcomes. It is widely believed that additional funds are reaching the States and schools, but there are differing views as to UBEC's success. UBEC was established in 2004 but, despite 10 years of experience and the expenditure of billions of dollars, no systematic Program evaluation has been carried out.

IV. Summary of M&E Assessment

36. **Household Surveys.** There are three major sources of household survey data in Nigeria that are broad in coverage and focus beyond single diseases or interventions, NDHS, SMART, and MICS.

37. **Nigeria Demographic Health Survey (NDHS).** The NDHS collects demographic, health service utilization, and basic health status information, and is implemented by the National Population Commission (NpopC) with technical support from ICF Macro. The NDHS is conducted using a well standardized methodology and rigorous sampling and has been carried out on average a little less than every 5 years. Previous surveys were conducted in 1990, 1999, 2003, 2008 and most recently 2013. NDHS obtains the majority of its support from USAID.

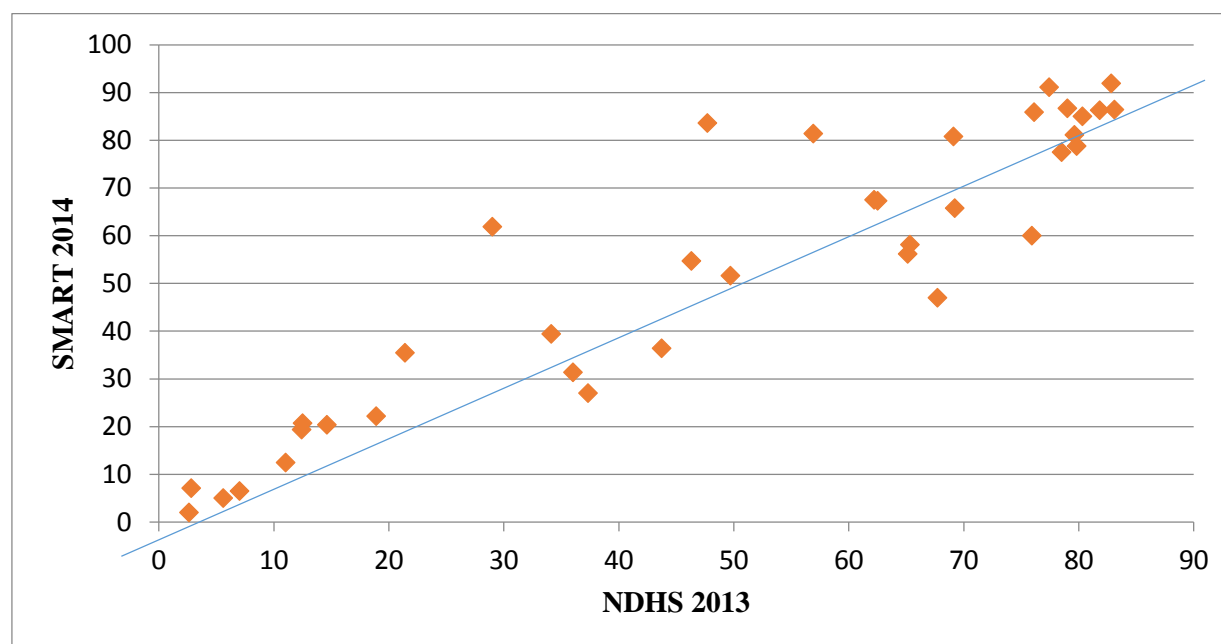
38. **Standardized Monitoring and Assessment of Relief and Transitions (SMART) Survey.** The SMART survey was developed as an annual household survey to provide State-level information on nutritional status and related information for children and women. It has expanded to meet the data needs of other Programs, primarily the SOML, to include information for basic reproductive and child health indicators. It was initially implemented in 11 States (2012), but in 2014 it covered all States (36+ FCT). SMART is implemented by the National Bureau of Statistics (NBS) with technical support and funding from UNICEF. It provides State-level estimates for key indicators and information for scorecards used by the States to monitor their SOML progress.

39. **Quality Assurance for SMART.** The results from SMART closely correlate with those from the NDHS. For example, comparing State level immunization coverage in NDHS to SMART yields a highly significant correlation coefficient with an $R^2 = 0.85$ (see figure 19). Data is collected on tablets which allows for various quality assurance checks. Extensive technical support continues to be provided by UNICEF. The FGON has undertaken to continue to use the same sampling methodology, same questionnaire, and same quality assurance mechanisms so as to ensure comparability of data over time and ensure data remain robust. UNICEF has indicated its continued interest in providing technical support for SMART at least until 2017.

40. **Multiple Indicator Cluster Survey (MICS).** The MICS survey covers multiple aspects of health and health practices focusing on women and children. It is implemented by the National

Bureau of Statistics (NBS), with technical support from UNICEF. Primary external partners are UNICEF, UNFPA, and Department for International Development (DFID). The MICS was conducted most recently in 2011 and provides zonal and urban-rural level estimates for key indicators.

Figure 14: Correlation of Penta3 Coverage (%) at State Level in NDHS v. SMART



Source: SMART 2014 and NDHS 2013 – Staff calculations.

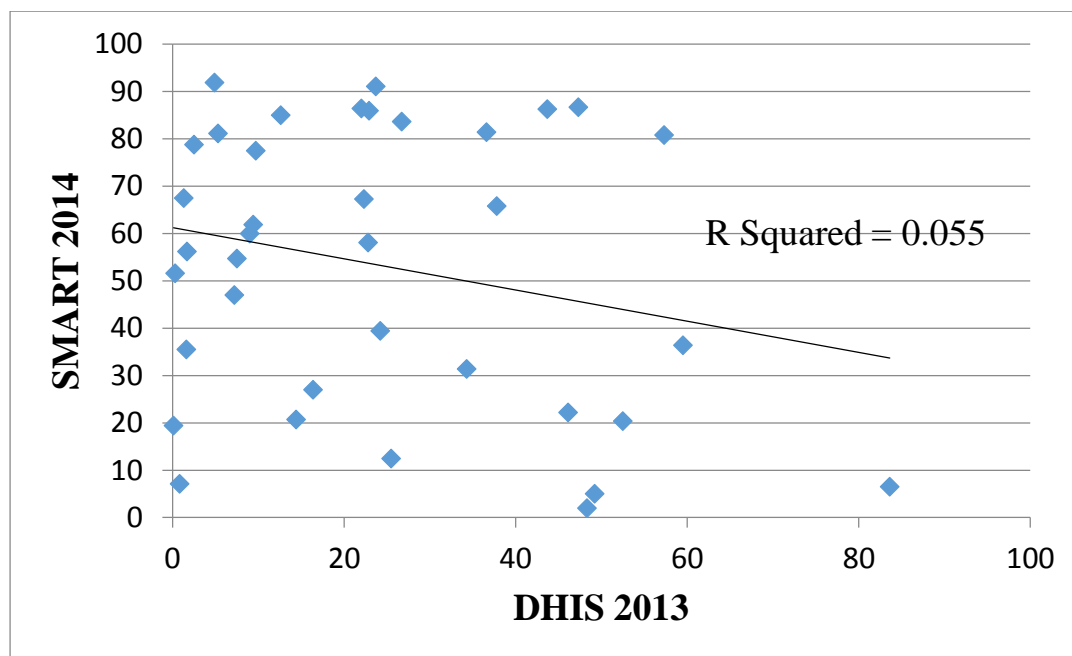
41. **There are a few Other Relevant Surveys that Could Help Triangulate Results.** These include: (i) NSHIP baseline and follow-on surveys conducted by NpopC with technical support from a private company; (ii) National HIV and Reproductive Health Survey (NARHS) most recently conducted in 2012 by the FMOH in collaboration with the National AIDS Control Agency (NACA), Society for Family Health (SFH) and NpopC which collects information on key HIV/AIDS and RH indicators; and (iii) disease-specific surveys such as the Malaria Indicator Survey.

42. **The Routine Health Management Information System (HMIS) is Rreceiving Considerable Attention.** The FMOH introduced a new HMIS system, called the District Health Information System version 2 (DHIS-2): in 2010 to ensure standardized and harmonized reporting across the country. The DHIS2 is a computer-based platform for the routine (monthly) collection of HMIS data from facilities in each State. Facilities use standardized data collection forms and submit a standardized report, either electronically or on paper, on a monthly basis. The DHIS2 website is open access (dhis2nigeria.org.ng) with a dashboard that shows reporting rates in real time and is managed by the FMOH through the Health Planning Research & Statistics Division.

43. **DHIS-2 Faces Some Challenges.** Some identified weaknesses which make the DHIS impracticable for calculating the DLIs include the following:

- (i) Differing levels of completeness for Government facilities. Routine HMIS information is currently submitted from approximately 61 percent of primary health care facilities—with reporting rates ranging from 96 percent to 0 percent across States. The accuracy of the denominators for reporting rates (number of public and private facilities) vary greatly by State—particularly for private facilities with only 38 percent of private facilities currently submitting reports. Although information is received from only primary health care facilities at present, by the end of 2014 secondary and tertiary facilities are expected to be reporting.
- (ii) Lack of routinely applied internal checks for data consistency and routine systems for data quality assessments (DQA) to validate reported data against source data. Data validation assessments are being developed at the national level but are not presently being implemented.
- (iii) Existence of significant differences in estimated coverage based on DHIS reports and population-based surveys, even for immunization services that are almost completely provided through the public sector. For example a comparison of SMART results and the appropriate DHIS2 data shows an insignificant and negative correlation with an $R^2 = .055$ (See Figure 20).

Figure 15: Correlation of Pentavalent3 Coverage (%) - SMART 2014 v. DHIS-2 2013



Source: SMART 2014 and NDHIS-2, staff calculations.

44. **There are Few Sources of Routine Information on Quality of Care.** Some routine practices being promoted by the FMOH to support and monitor quality of care include health facility registration; Quality of care (QOC) checklists used at secondary level facilities and primary level referral centers focusing on the service environment (e.g., triage/records/ organization); and

Integrated Supportive Supervision tools for assessment of quality of care at secondary level facilities (first level referral facilities). However, the only systematic supervisory checklist available for PHC facilities is the one used for PBF.

45. **Until Recently there were Almost no Health Facility Surveys in Nigeria.** Until now health facility surveys have not been carried out on a large scale with the exception of the Bank-sponsored SDI survey. Plans are underway for the conduct of the first national level SARA survey.

46. **Service Delivery Indicator (SDI) Survey.** The SDI is a standard survey conducted through the World Bank to provide comparable data across countries. In Nigeria SDI was carried out by a private sector firm. The focus of SDI is on service readiness (equipment and supplies at the facility), finance and budget at the facility level human resources at the health facility (HF), and service provider knowledge based on responses to vignettes. The SDI was conducted in 12 States Nigeria in 2014. Findings were consistent across States with results from the first six States showing that an average of 36 percent providers accurately diagnosed conditions and 32 percent adhered to clinical guidelines when interviewed using a vignette. Only 17 percent adequately demonstrated knowledge for management of maternal/newborn complications. About 45 percent of facilities had essential drugs available and about 18 percent equipment and infrastructure required for basic services. There was more diversity in results between States for the availability of items assessed using the facility audit.

47. **Service Availability and Readiness Assessment (SARA).** The SARA is a standard health facility survey for primary health care and Comprehensive Emergency Obstetric and Neonatal Care (CEmONC). The standard tools are adapted to each country. A Nigeria SARA is in the final planning phase with main donors GAVI and Global Fund. It will be implemented early 2015 by the NBS with technical support for all aspects of the survey by Measure Evaluation/John Snow International (ME/JSI) and will cover both private and public facilities in all States.

48. **NSHIP Baseline Facility Survey.** As part of the baseline for the NSHIP impact evaluation a health facility survey was conducted in 6 States by NBS with technical assistance from the University of South Carolina. NBS experienced delays in completing the survey.

49. **Recommendations for SOML PforR.** At this time DHIS 2 is still evolving and will not be able to provide credible data on DLIs. Also, some of the proposed DLIs will require population based information while others need facility level data. Therefore, the proposed approach includes a combination of SMART population based survey for population based indicators and health facility surveys for quality of care indicators. The latter should be based on a harmonized SDI-SARA methodology that is being developed at global level.

50. **Confidence Intervals.** Using the sample sizes from the SMART and the published design effects from NDHS 2013 (to take into account the effect of cluster sampling) it is possible to calculate the expected confidence intervals (CIs) for SMART surveys at the State level for immunization coverage (DPT3), contraceptive prevalence rate (CPR), and skilled birth attendance (SBA). The CIs at zonal or national level would be substantially narrower but even at State level they are reasonably narrow and would be able to detect Programmatically important changes (see Table 13).

Table 3: Expected Confidence Intervals in Percentage Points of Selected Indicators from SMART Surveys for State Level Estimates

Indicator	Baseline Coverage (%)	95% CI \pm	90% CI \pm	80% CI \pm
All States				
CPR	10	2.74	2.13	1.40
DPT3	38	7.20	5.61	3.68
SBA	38	7.83	6.11	4.00
North West Zone				
CPR	3.6	2.20	1.71	1.12
DPT3	13.9	5.23	4.08	2.67
SBA	12.9	5.44	4.24	2.78

V. Summary of Economic Evaluation

51. **Health Care Financing is Mostly Out-of-Pocket and Public Expenditure is Unlikely to Increase Much.** It is difficult to get reliable information on health care financing in Nigeria as efforts by the Bank, WHO, Children’s Investment Fund Foundation (CIFF), and DFID can attest. The Bank is in the process of carrying out a resource tracking study and this is proving challenging, as have previous public expenditure reviews. While keeping in mind the limitations of the data, there are a few salient points on which there is widespread agreement:

- (i) There is high out-of-pocket (OOPs) expenditure representing about two-thirds of total health expenditure. This is consistent with the wide use of the private sector as described above, low levels of public expenditure on health, and the very limited use of risk pooling;
- (ii) Public expenditure on health is low by any standard and represents less than 2 percent of GDP. With the recent re-basing of the GDP, public expenditure on health may be as low as 1 or 1.2 percent of GDP;
- (iii) Public expenditure is inefficient, partly because there is little non-salary recurrent budget. What little there is does NOT end up at health facility level;
- (iv) As described above, public expenditure is NOT correlated with actual results in Nigeria and there is little reliable information for making decisions about how to better use resources;
- (v) Public expenditure is not equitable with more than half of public funds going to hospital care where the benefit incidence is pro-rich and fewer public funds going to primary health care which is significantly more pro-poor; and
- (vi) Public health expenditure may increase as a result of economic growth and increased commitment to health (as exemplified by the recent passage of the “Health Bill”). However, the Government’s heavy dependence on oil (which accounts for about 75

percent of its revenues), makes it unlikely that overall public revenues will increase substantially over the medium term. In this context increases in public expenditure on health are likely to be modest in the next few years, on the order of US\$1-US\$2 per capita per year.

52. **Public Financing and Enhanced Fiscal Federalism.** The Bank has recently carried out a review of fiscal federalism in Nigeria.⁵ Nigerian federalism exhibits important positive features that are associated with successful federations elsewhere such as the substantial autonomy enjoyed by State Governments, hard budget constraints, and allocation of revenues among States according to an objective formula that is consistently applied over time with little intrusion of political concerns. However, Nigeria could take better advantage of these positive features of its federalism to enhance the delivery of health and other services. Global experience suggests that conditional transfers to subnational Governments can be effective in achieving national priorities so long as the transfers are based on clear criteria and objectives, the conditions focus on outcomes and the application of standards rather than inputs and processes, and that subnational Governments manage the transferred resources themselves. Nigeria's experience with conditional transfers is limited but appears to confirm global lessons. The Universal Basic Education Program (UBE) is generally seen not to be working well because of excessive Federal Government incursion into the management of resources at State level. By contrast the experience with the MDG conditional grants Program appears to have been more successful because there was less Federal involvement in the management of transferred resources. This PforR can build on this experience and help the FGON provide conditional disbursements to States based on objective criteria, measured independently, and where management of transferred resources resides with State Governments. The disbursements to State Governments envisioned under DLI's 1, and 3 will provide an opportunity for testing such a results-based approach.

53. **Recent Signing of the National Health Bill.** The President of Nigeria in December 2014 signed into law the National Health Bill. The Bill is expected to give significant impetus to efforts to reduce maternal and infant health indices in the country. One of the major provisions of the Bill is the increased availability of funding for primary healthcare services through the *Basic Health Care Provision Fund* (BHCPF). The law stipulates that not less than one percent of the consolidated revenue of the Federal Government will be used to finance the BHCPF which in 2013 would have amounted to a little more than US\$500 million. The increasing fiscal space for health in Nigeria is both a reflection of Nigeria's economic growth and recognition of GON to improve health outcomes. However there is a possibility that the increased revenues through the BHCPF annual grant could crowd out normal budgetary allocations to the health sector – it is unclear how this will play out but critical to note that budgetary allocation releases to the health sector in Nigeria are inconsistent and at best only partially implemented. It may as well turn out that rather than be an additionally it could fill the role of unreleased budget allocations.

54. **NHIS will Receive 50 percent of the Funds and Already Employs a Results-Based Payment Mechanism.** The National Health Insurance Scheme (NHIS) is the Government body responsible for implementing the Social Health insurance scheme, which began implementation in 2005. As Stated in the bill it will be responsible for the provision of basic minimum package of health services to citizens and the NHIS hopes to procure MCH services through its network of

⁵ Nigeria Economic Report No.1, May 2013.

public and private providers. The benefit package as envisaged by the NHIS closely aligns with the indicators in the SOML package. The modus operandi of the NHIS is a performance based financing mechanism, which pays for outputs. Providers in the NHIS are paid through capitation and Fee for Service (FFS) payments. The capitated payments ensures providers maintain the enrollees under them are healthy and hence will require less treatments whilst the FFS are consumed when needed after clearance from a third party intermediary. The actual mechanism for managing the funds to be received by the NHIS remains unclear but it is likely that it will continue to utilize the funds as described. This is a mechanism, which further reinforces the proposed operation in two ways: it is aligned with the cost effective health interventions and guarantees the sustainability of an approach that pays for results.

55. NPHCDA will Manage 45 Percent of the Funds but the Mechanism is Less Clear. The NPHCDA will manage 45 percent of the funds from the BHCPF. The bill States that the agency will disburse money to the States on the attainment of certain criteria (mostly commitment to counterpart funding). Even though the bill does not explicitly State the basic minimum package of health as it did for the NHIS it assumes that PHC boards will focus on basic minimum package as well. There are specified amounts in the bill set aside for drugs and supplies, health facility construction, and health worker training. This may limit the opportunity to make it results based but the Bank has been asked by the FMOH for assistance in ensuring the most efficient use of the funds. The projects financed under this part of the bill will be cleared by the NPHCDA and the NPHCDA also has the power to withhold further disbursements to State and local Governments for improper use of the funds.

56. Economic Justification. The economic justification for a PforR is whether public investment in the Program is warranted. For SOML there is a strong justification for Government financing based on (i) addressing market failures; (ii) improving the allocative and technical efficiency of public spending; (iii) improving equity; and

a. Addressing Market Failures

57. SOML is Designed in Part to Address Market Failures in Health in Nigeria. Low immunization rates and low use of insecticide treated nets (ITNs) and other services that address malaria represent market failures due to large externalities from controlling communicable diseases. High immunization coverage and increasing ITN use provide “herd immunity” even to those children who are not vaccinated or don’t sleep under ITNs. Increasing behaviors that promote good health (such as family planning) also exhibit features of public goods. The design of the PforR operation, through for example its selection of DLIs, further strengthens the incentive systems to address public good features and large social externalities in the health sector.

b. Allocative and Technical Efficiency

58. The PforR will Help Nigeria Use its Health Resources More Efficiently. Compared to other investment instruments, the PforR will help Nigeria move toward more optimal allocation and achieve gains in technical efficiency in the following ways:

- (i) **Increased Allocations to the “Most Efficient Producers”:** The PforR will help increase allocative efficiency by providing more funds to the best performing States (as measured by their rate of improvement). DLI 1 will act as a quasi-market mechanism to reward the most efficient producers of health services in terms of both quantity and quality. The more efficient the State the more resources they are allocated. This differs from a more traditional input financing model under which results achieved do not determine allocations to the various actors;
- (ii) **Incentive Effect will Increase Technical Efficiency.** The PforR provides incentives to States and State officials to get better results from the resources they are already spending. The better results they achieve (i.e., the better their technical efficiency) the more benefits they will receive (including both financial incentives and non-financial rewards such as recognition, training, and “bragging rights”). This compares to previous investment approaches that did not focus on incentives to enhance efficiency.
- (iii) **Increasing Public Financing of Private Sector Delivery.** Through DLI 4, the PforR will provide the State Governments the opportunity to work with the private sector much more than they have in the past. Contracting with private providers (both for-profit and non-profit) to deliver publicly financed services— will be a more efficient use of public resources than having the public sector deliver those services itself.

59. **SOML is Designed to Improve the Allocative and Technical Efficiency of Public Spending on Health in Nigeria and the PforR will Build on that Objective.** There has been a mismatch between the disease burden and public budget allocations to health. Of special concern are remaining high maternal and child mortality rates. SOML prioritizes services that are highly cost effective^{6, 7, 8} (see table 14) in terms of the estimated cost per disability-adjusted life year (DALY) saved. SOML interventions represent very efficient investments compared to other possible expenditures such as the treatment of childhood leukemia or congenital defects. Sadly many of the highly cost-effective SOML interventions are not reaching large proportions of the population, especially the poor. SOML and the support it will receive through the PforR operation is expected to increase the attention paid to currently under-funded and under used services thereby increasing the allocative efficiency.

Table 4: Cost Effectiveness of Selected Interventions – US\$/DALY

Condition	Intervention ^A	Cost Effectiveness (US\$/DALY)
Malaria	Insecticide Treated Nets (ITNs)	11

⁶ Laxminarayan R, Chow J, Shahid-Salles SA (2006) Intervention cost-effectiveness: overview of main messages. In: Jamison DT, Breman JG, Measham AR, Alleyne G, Claeson M, Evans DB et al (eds) Disease Control Priorities in Developing Countries, vol 2. World Bank/Oxford University Press, Washington, DC.

⁷ Ruth Levine, Ana Langer, Nancy Birdsall, Gaverick Matheny, Merrick Wright, and Angela Bayer (2006) Contraception. In: Jamison DT, Breman JG, Measham AR, Alleyne G, Claeson M, Evans DB et al (eds) Disease Control Priorities in Developing Countries, vol 2. World Bank/Oxford University Press, Washington, DC

⁸ Imdad A et al. Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. Cochrane Database of Systematic Reviews, 2010, (12):CD008524.

Condition	Intervention ^A	Cost Effectiveness (US\$/DALY)
Unwanted Pregnancy	Family Planning Programs	117
Tuberculosis, diphtheria-pertussis-tetanus, polio, measles	Additional coverage of traditional Expanded Program on Immunization	7
Tuberculosis	Directly Observed Treatment	301
HIV/AIDS	Voluntary Counseling and Testing	47
Stroke (Ischemic)	Aspirin	149
Maternal Mortality	Increased overall quality of care and coverage	86
Malaria	Intermittent preventive treatment with Sulfadoxine –Pyrimethamine	19
Integrated Management of Childhood Illnesses	Integrated Management of Childhood Illnesses	39
Ischemic Heart Disease	Coronary Artery Bypass Graft	36793
HIV/AIDS	EMTCT	192
HIV/AIDS	Antiretroviral therapy	922
Measles	Second opportunity measles vaccination	4
Breast Cancer	Radiation therapy	23,300

^A Interventions in **bold** are those prioritized by SOML.

Source: Jamison DT, Breman JG, Measham AR, Alleyne G, Claeson M, Evans DB et al (eds) Disease Control Priorities in Developing Countries, vol 2. World Bank/Oxford University Press, Washington, DC 2006.

60. **Results-Based Approaches will be More Efficient than Input-Based Strategies.** The experience of the Bank, for example through the Second Health Systems Development Project (HSDP II), is that providing input financing does not obviously yield increased service delivery. By contrast, the funding under NSHIP does indicate that results-based approaches will produce more and better quality health services. For the reasons noted above SOML's results-based approach is expected to improve resource allocation and achieve greater technical efficiency gains compared to an input-based strategy.

c. Improving Equity

61. **SOML's Stated Objective is to Improve Equity in the Health Sector in Nigeria, and the PforR will Support that Objective.** As indicated in table 5 below maternal and child health outcomes in Nigeria are poor on average and are especially bad for the poorest two income quintiles. The poorest two income quintiles suffer from similarly poor HNP outcomes and have nearly a one in five chance of dying before their fifth birthday. The ratio of the poorest to richest quintiles varies is significantly higher than the average in West Africa. Children from the poorest quintile are 3 times more likely to be stunted than children from the wealthiest quintile. Access to care is even more unequal with the wealthiest quintile 11 times more likely to be fully immunized or to have a skilled birth attendant than the poorest quintile. As can be appreciated in the bottom

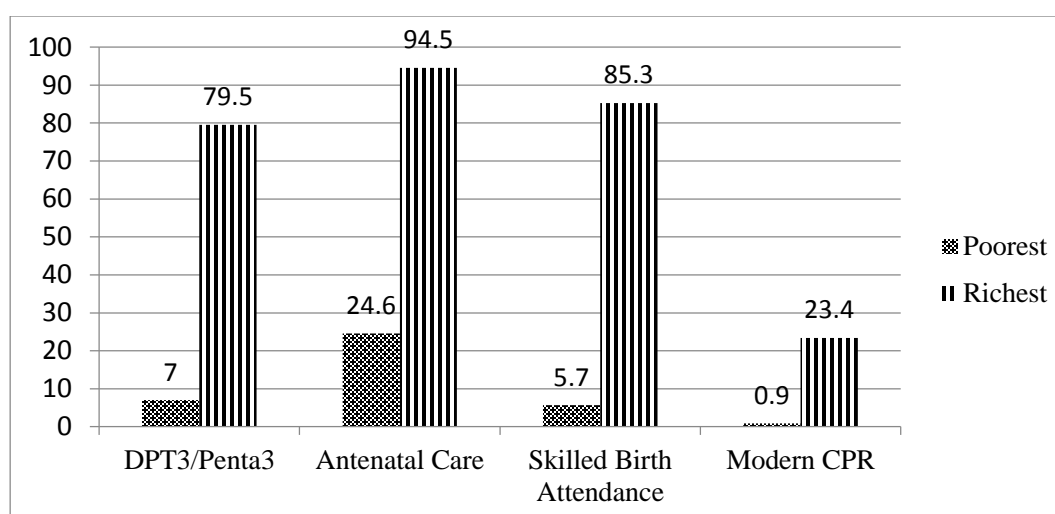
part of Table 5, the differentials in access to, and utilization of, health services by income quintile are extreme (see Figure 21).

Table 5: Health Outcomes and Outputs by Income Quintile

Outcome Indicators	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)	Ratio of Q1 to Q5
Infant mortality rate per 1000	92	94	71	65	48	1.9
Under-five mortality rate per 1000	190	187	127	100	73	2.6
Stunting children under 5 (%)	53.8	46.1	35.1	26.3	18.0	3.0
Underweight children under 5 (%)	41.9	34.8	25.7	22.1	15.6	2.7
Output Indicators						
Fully immunized children (%)	7.0	18.5	39.7	60.0	79.5	11.4
Skilled Birth Attendance (%)	5.7	17.3	39.9	62.1	85.3	15.0
Antenatal care 1+ visits (%)	24.6	44.8	67.8	85.2	94.5	3.8

Source: NDHS 2013 and Staff Calculations.

Figure 16: Coverage of Services Among the Richest and Poorest Income Quintiles



Source: NDHS 2013.

62. **SOML Emphasizes Equity in Practical Ways.** SOML's commitment to improving equity is evident from; (i) its focus on essential intervention where coverage among the poor is very low; (ii) its focus on the North East and North West regions of the country (see table 6 and Figure 17); and (iii) its desire to strengthen primary health care facilities where the benefit incidence is significantly pro-poor (See Figure 18).

63. **Geographical Inequity – The North East and North West Lag far Behind.** In addition to income inequality, there are also important geographical inequities. The U5MR is twice as high in the North West compared to the South West (185/1000 and 90/1000 respectively) and service delivery is also far behind. For example, immunization coverage (DPT3/Penta3) is 14 percent and 21 percent in the North West and North East respectively compared to 70 percent in the South and 80 percent in the Southeast (see Table 6). It does not appear that the geo-political zones have

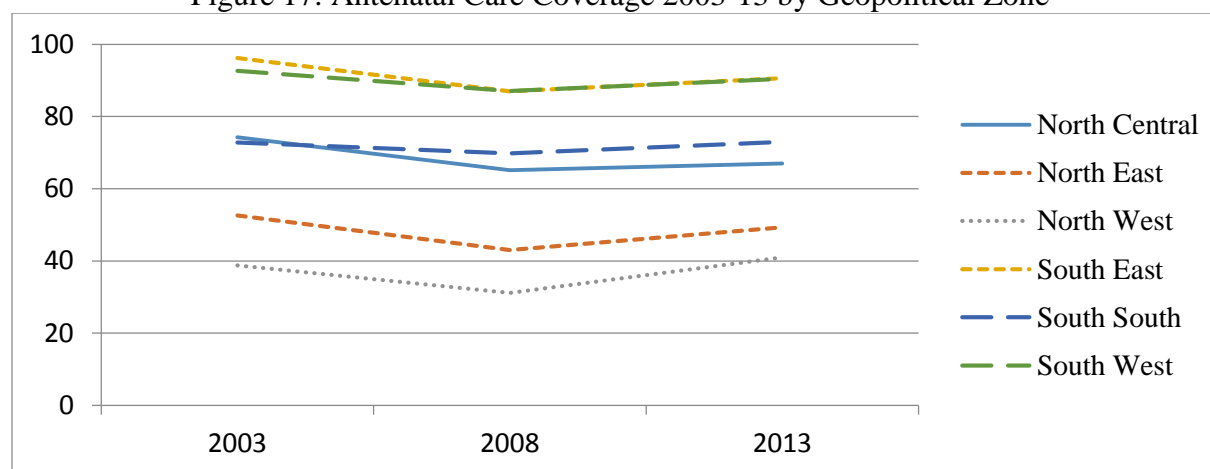
different rates of progress which is surprising because it should be easier for the North East and the North West to improve given their low baselines (see Figure 22).

Table 6: Key Health Outcomes and Outputs by Geopolitical Zone

Indicator	North-East	North-West	North Central	South South	South-West	South-East
Under-5 Mortality Rate	160	185	100	91	90	131
Stunting (low height for age) %	42.3	54.8	29.3	18.3	22.2	16.0
Total Fertility Rate	6.3	6.7	5.3	4.3	4.6	4.7
DPT3 Vaccination coverage, %	20.6	13.9	43.9	69.8	65.5	80.7
Skilled Birth Attendance, %	19.9	12.3	46.5	55.4	82.5	82.2

Source: NDHS 2013.

Figure 17: Antenatal Care Coverage 2003-13 by Geopolitical Zone

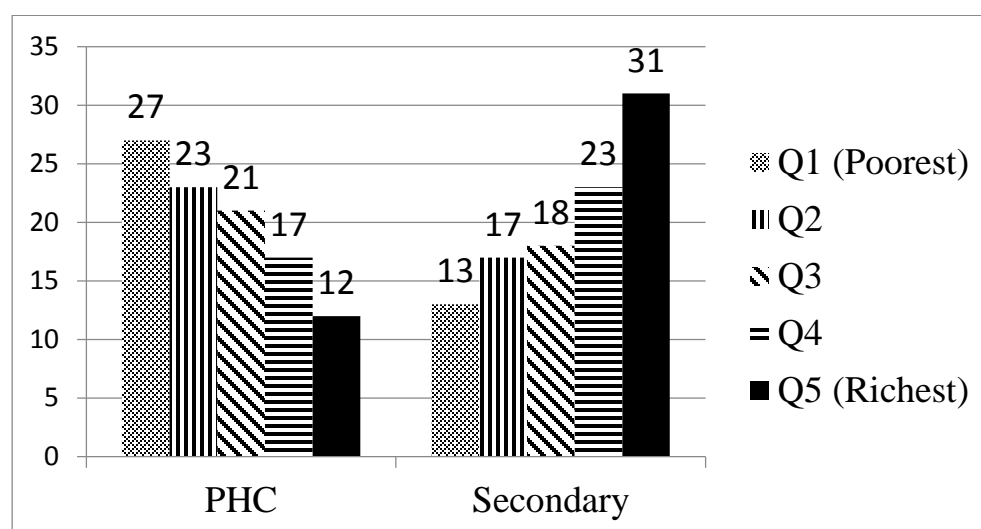


Source: NDHS.

a. Addressing Insurance Market Failures

64. **SOML has the Potential to Address the Inefficiency and Inequity of a Health System that Relies Heavily on out-of-pocket Spending due to the Lack of Insurance and Weak Public Sector Funding and Delivery of Basic Services.** The nascent National Health Insurance Scheme (NHIS) currently covers only 3-4 percent of the population, mostly Federal Government employees. The vast majority of people have no access to risk pooling, leaving them vulnerable to catastrophic spending and potentially unable to pay for health expenses. SOML will increase the coverage of vaccines, nutritional supplements, antenatal care and delivery attendance to everyone, regardless of insurance status. This allows the uninsured majority to access basic healthcare and reduces the risk of serious morbidity and catastrophic spending while insurance markets continue to develop. In this way SOML contributes to Universal Health Coverage (UHC).

Figure 18: Utilization of PHC and Secondary Health Facilities by Income Quintile

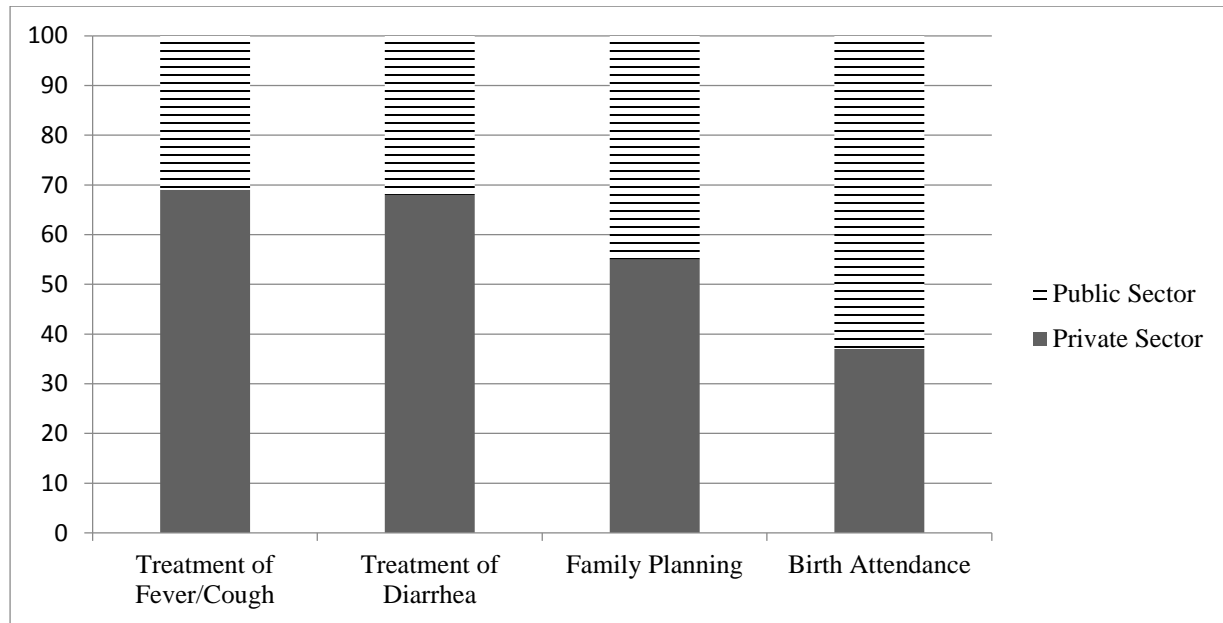


Source: Service Delivery Indicators (SDI) Survey 2013.

65. **SOML Provides Public *Financing* but is Not Restricted to Public *Provision* of Health Services.** In order to reach people where they seek care, SOML envisions increased engagement with the private health sector. The SOML Program document commits to finding ways of Government engaging with the private sector in meaningful ways. It explicitly encourages Public-Private Partnerships.

66. **Private Sector is a Major Provider of Health Services.** While the data are a bit sparse and sometimes uncertain, it is clear that the private sector is an important provider of HNP services. According to the NDHS 2013, 69 percent of children with fever are treated by private providers while 37 percent of skilled birth attendance and 55 percent of family planning services are provided by the private sector (see figure 24). It is NOT the case that the private sector only serves the richer income quintiles. Analysis of the 2013 NDHS indicates that among people with fever, 72 percent of the poorest income quintile get their care in the private sector. This is actually a little higher than the richest income quintile where 69 percent of patients source their care in the private sector. Patent and proprietary medicine vendors (PPMVs) provide care to 65 percent of poor children with fever who access the private sector. Thus any attempt to improve HNP service delivery will need to address the challenge of how to constructively engage with the private sector. Until recently, the FGON has had little interaction with the private health sector and is only now starting to strengthen its links with private providers. The PforR's innovation fund (DLI 4) further incentivizes private sector engagement including many kinds of public-private partnerships.

Figure 19: Sources of Care by Sector



Source: NDHS 2013.

67. **Efficiency Estimates.** In the past, Nigeria has suffered relatively low efficiency in improving coverage of basic services. Based on estimations from the PDU, annual total Government expenditure on PHC ranges between US\$849 and US\$1,642 million. Comparing this against the improvement in coverage of these services shown by Nigerian DHS 2008 and 2013, it appears that for each percentage point increase in the index (consisting of six key indicators in DLI 1), average cost is between US\$134.9 and US\$260.7 million.

68. **With the Implementation of SOML PforR, Incentives will be Introduced for State to be more Results Focused and More Efficient.** This shift which will help catalyze the impact and efficiency of Government spending on primary care. It is expected that more results will be achieved under PforR, and even taking account of additional fund for incentives, the cost per percentage point increase in the index will still decrease. Table 17 shows that the cost of a percentage point increase in the index can be reduced between 9.6 percent and 47.8 percent, depending on the scenario used. Four scenarios were examined based on (i) the proportion of all public health expenditure dedicated to PHC is 29 percent or 15 percent; and (ii) the increase in the index is 13 percentage points per year (the target for the operation) or is 8 percentage points per year (2 percentage points higher than the current rate of improvement). The proportion of the Government health budget spent on PHC was estimated by the PDU using a careful examination of budget line items in a sample of States. The 15 percent estimate is a very conservative figure used as a lower bound. Seeing as salaries account for most public expenditures on health and there are more Government health workers involved in PHC it is unlikely that PHC expenditure could be lower than this. As part of DLI 5, each State will be incentivized to report on its expenditure on PHC. Thus, better estimates of Government spending on PHC will be available during the Program, allowing for an updated analysis of efficiency.

Table 7: Cost Effectiveness PforR Under Various Scenarios

	Proportion of government spending on PHC	Expected percentage point improvement in index under PforR	Reduction of unit cost per percentage point increase in index (percent)
Scenario 1	29%	13%	47.8%
Scenario 2	15%	13%	44.4%
Scenario 3	29%	8%	15.2%
Scenario 4	15%	8%	9.6%

70. **Economic Impact of SOML.** The economic impact of SOML is likely to be very large and may derive from creating the conditions for economic take-off particularly improved human capital formation through greater returns to education and speeding up the demographic dividend.

71. **Nigeria Cannot Rely on Growth Alone to Produce HNP Outcomes.** While middle and high income countries have better health outcomes on average, greater wealth does not inexorably lead to better health. In oil-driven economies in Sub Saharan Africa – including Nigeria as well as Gabon, Angola and Equatorial Guinea— high under-five mortality rates persist despite relatively high GNI per capita. Even in countries where economic growth and HNP outcomes are both strong, wealth did not lead to health. In the East Asian economies improvements in health outcomes *preceded* rapid growth (see Figure 25).⁹ Nigeria’s experience highlights that economic growth does not inevitably lead to better health and specific concerted efforts are required. However, there is evidence that suggests improvements in health may contribute to economic growth.

72. **Economic Impact of the Human Capital Improvements.** Micro-economic evidence shows that improving health can contribute to economic growth by promoting human capital formation and increasing labor supply and productivity. In Africa and Latin America, child health interventions to improve nutrition, provide vitamin supplementation, promote breastfeeding and institutionalize deworming – all activities included in SOML—have been shown to produce economic returns as well as health benefits. In addition:

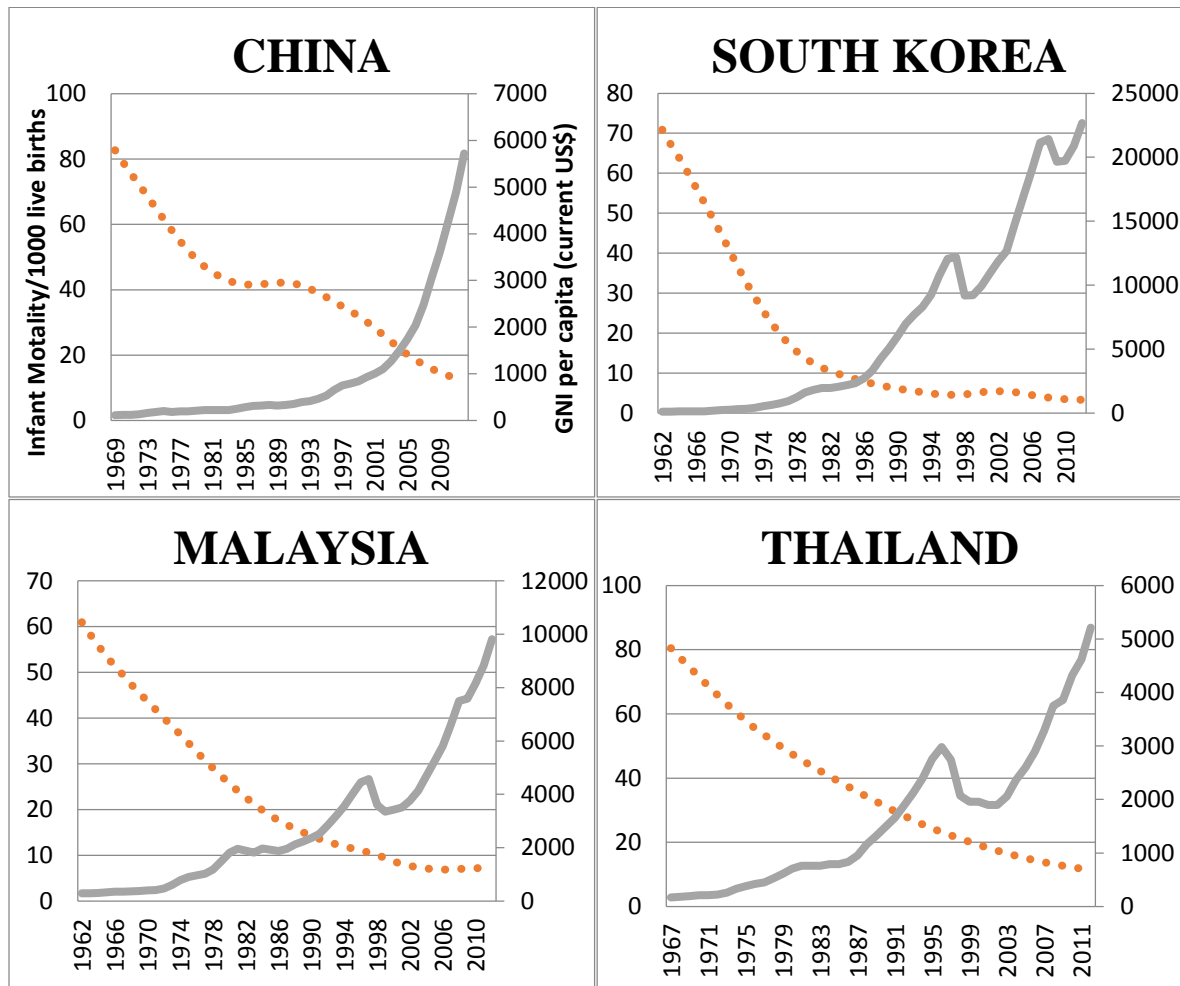
- (i) Micronutrient deficiencies alone in Nigeria add up to an estimated loss of over US\$1.5 billion in GDP every year.
- (ii) In Kenya, deworming was found to be a cost effective approach to improving human capital formation, increasing school attendance by a year for only US\$ 3.50 per student. Adults who received deworming as children have been found to work an additional 5 hours per week and to earn 20 percent more on average. They are also more likely to be employed in the formal sector.
- (iii) In Guatemala, boys who benefited from an early childhood nutrition intervention had 46 percent higher earnings 30 years later.¹⁰

⁹ “Health or Wealth: Which Comes First?” Africa Health Forum: Finance and Capacity for Results. 2013.

¹⁰ Ibid.

- (iv) A randomized impact evaluation in Nigeria showed that the offer of a workplace based malaria testing and treatment Program increases worker earnings by approximately 10 percent.¹¹

Figure 20: Health before Wealth - Infant Mortality Rates & GNI per capita in East Asia

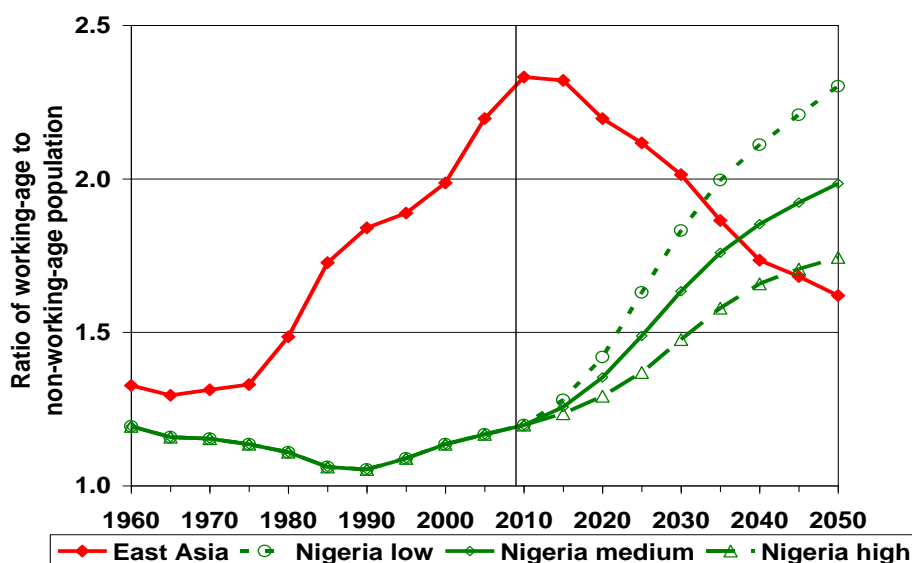


73. **SOML Supports a Fertility Transition which may allow Nigeria to Accelerate Growth by Capturing a *Demographic Dividend*.** Nigeria has an opportunity to obtain the kind of demographic dividend that has played an important role in the growth of East Asian and other economies. A demographic dividend is achieved when the ratio of economically productive adults to (mostly younger) dependents rapidly increases. When Nigeria will capture its economic dividend crucially depends on how quickly fertility declines (see figure 26). Capturing a demographic dividend requires (i) a fertility transition to a substantially lower level than Nigeria has so far achieved; (ii) an improvement in human capital formation and (iii) the creation of

¹¹ Health information, treatment, and worker productivity: Experimental evidence from malaria testing and treatment among Nigerian sugarcane cutters, Dillon et al, 2014.

roughly 2 to 2.5 million new jobs per year. SOML aims to accelerate the fertility transition by increasing the contraceptive prevalence rate and reducing child mortality through prevention and treatment of common childhood illnesses. Improving child health and nutrition also promotes human capital formation. Creating jobs as well will require good governance, solid macroeconomic management, a carefully designed trade policy, efficient infrastructure, and well-functioning markets. The Bank is working with the Government of Nigeria to develop infrastructure, increase trade and ultimately create jobs.

Figure 21: Dependency Ratio Over Time in East Asia and Nigeria
(with Different Population Projections)



74. **If Nigeria can Achieve a Fertility Transition and Improve Institutions Critical to the Economy, a Substantial Acceleration in Growth is Within Grasp.** Specifically, if Nigeria achieves the medium fertility scenario posited by the World Population Prospects, increases life expectancy to the world average, and improves institutions (such as rule of law and bureaucratic efficiency) in keeping with similar countries, it is estimated that, by 2030 (i) its per capita GDP would be 31 percent higher; (ii) an additional 32 million people would be lifted out of poverty; and (iii) its economy would be 50 percent larger as compared with a status quo scenario with no demographic dividend.¹² By promoting a fertility transition and contributing to human capital formation through better health and nutrition, SOML creates an opportunity for Nigeria to reap the economic benefits of a surge in productivity relative to the age structure of the population. On the contrary, if the status quo of a sluggish fertility transition and uneven improvements in child health persists, Nigeria will not be able to capture a demographic dividend.

¹² Bloom D, Finlay J, Humair S et al. 2010 Prospects for Economic Growth in Nigeria: A Demographic Perspective. Paper presented at the IUSSP Seminar on Demographics and Macroeconomic Performance held at Novotel, Gare de Lyon, Paris, France 4-5 June 2010.

75. **Financial Sustainability.** The incremental costs of the PforR are modest, about US\$0.71 per capita per year. Even with possible decreases in oil revenues the Government of Nigeria likely has the fiscal space to finance such an increase in health expenditures. Importantly, the PforR tests a way of effecting fiscal transfers that would increase the efficiency of public expenditure, even without increases in overall budget allocations. For example, the MDG Conditional Grant Scheme could employ the same results-based approach of the PforR at no additional cost. Even up to ministerial level, health expenditures are perceived to suffer from a low benefit/cost ratio. The result-based approach of the proposed PforR directly links budgetary expenditure with improvements in health service delivery providing an opportunity to institutionalize this more efficient means of using scarce public resources.

VI: Assessment of Specific DLIs

76. This assessment looks at the global and Nigerian experience with approaches that are relevant to the design of the DLIs 1 and 4. It looks at: (i) the evidence on improved management capacity on health services; and (ii) the effectiveness of results-based grants to sub-national Governments; and (iii) innovation and learning funds in the private and public sectors.

a. The Effects of Good Management on Delivery of Health Services

77. DLI 1 relies on improved management at State level to influence what happens in health facilities so the latter become more effective and efficient. Below in roughly ascending order of methodological rigor is the evidence supporting the effect of better State/district management on service delivery:

- (i) **Anecdotal Evidence in Nigeria.** It is a cliché to say that “management matters” but the experience in Nigeria with PBF indicates that this is true. When the officers in charge (OICs) of poorly-performing are changed and new OICs are assigned, performance often changes, sometimes quite dramatically. Similarly, many observers feel that the surprisingly good performance of PBF in Adamawa (very rapid progress despite a difficult security situation) is due to the talented management of the SPHCDA Executive Director supported by high quality consultants.
- (ii) **Variation in State Performance in Nigeria.** As described above (see figure 12) there is very wide variation in the performance of Nigerian States in terms of their change in coverage levels from 2008 to 2013. There are 5 or 6 States that have made remarkable progress, much higher than the national average while there are other States where performance deteriorated substantially. There is no simple explanation for the wide variation and it does make sense that it reflects State level management.
- (iii) **Correlation Studies in Coronary Care Units.** A recent study¹³ in 579 American coronary care units demonstrated that management practices that focused on standardizing care, tracking of key performance indicators, setting targets, and incentivizing employees had a very large effect on decreasing 30 day mortality rates from acute heart attacks. These kind of management practices are similar to the ones envisioned under the PforR.

¹³ KJ McConnell et al; Management Practices and the Quality of Care in Cardiac Units, JAMA 2013 March 18.

- (iv) **Effect of Systematic Supervision.** A recent Cochrane Collaboration meta-analysis¹⁴ of studies in low income settings suggests that supervision can have an influence on provider behavior and the care that they provide. More work is needed and the rigor of the studies needs to be improved.
- (v) **Contracting-In Managers.** There is a long tradition of getting private sector managers to manage publicly owned assets. In the health sector this has been done on a large scale in Pakistan where it covers districts with a population of more than 100 million people. The results have been encouraging and represent large efficiency gains because the incremental costs have been essentially none. Given that contracting in managers does not change the health workers or basic arrangements, the experience in Pakistan and elsewhere indicates that improved management can make a huge difference.
- (vi) **Contracting Out Service Delivery.** A quasi-experimental study in Cambodia demonstrated a very large improvement in service delivery (a 1 baseline standard deviation) when NGOs were contracted to deliver health services. Interestingly the NGOs had to rely on existing health workers which gave rise to the first recorded use of performance-based financing (PBF). Other studies from other settings confirm these results and strongly suggest that it is the improved management that contracted organizations bring that determines their success.

b. DLI 1: Experience with Results-Based Grants to Sub-National Government

78. **Lessons from the Universal Basic Education Commission (UBEC) Intervention Fund** are discussed under the institutional arrangements section above.

79. **Global Experience.** Performance based grant systems are intended to be integrated into national systems of intergovernmental fiscal transfers as a strategy for the delivery of public goods and services. Through incentives, sub-national Governments are influenced to improve performance (especially the cost, efficiency, quality and effectiveness of service provision), comply with central Government policy imperatives and improve service delivery. Although there is a dearth of RCTs, evidence from case studies and evaluations shows that performance-based transfers are effective in improving service delivery and local Government performance. Overall, performance-based incentive schemes in the health sectors of several low and middle income countries, including Costa Rica, Nicaragua and Indonesia, have had positive impacts on performance with resulting efficiency and accountability gains, quality and equitable service delivery. Results from Argentina's 'Plan Nacer' and Brazil are discussed in more detail below but they confirm the conclusion that where national financial transfers to States and municipalities are linked to verifiable results, there can be an improvement in health outcome indicators and achievements of agreed service delivery targets.

80. **Gates Immunization Leadership Challenge.** Recognizing the critical role of political commitment at the State level in the fight to eliminate polio and improve routine immunization

¹⁴ X Bosch-Capblanche et al: Managerial supervision to improve primary health care in low and middle-income countries. Cochrane Collaboration 2011.

(RI), the Bill and Melinda Gates Foundation (BMGF), launched the Immunization Leadership Challenge in September 2011. The objective was to use incentive based advocacy to stimulate direct oversight and leadership by State Governors.

81. **The Challenge Identified Seven Winning States.** One best performing State from each geopolitical zone and one State with overall most improved performance based on a set of pre-defined indicators. In addition to recognition from Bill Gates at an awards ceremony, each winning State was awarded a grant of US\$500,000 to be used for a priority health intervention which could potentially be increased to US\$1,000,000 if the State provided counterpart funds of US\$250,000.

82. **The Challenge Appears to have Galvanized the Governors to Pay Closer Attention to RI and Polio Eradication.** Although it is a little difficult to ascribe specific successes to it. It is unclear whether it has improved RI. However, Nigeria has now gone more than 4 months without a case of wild polio. For many State officials, the monetary incentive though appreciated, was less of a motivation than meeting Mr. Gates. Furthermore, the 'bragging rights' that come with being able to outperform their peers appears to have been a good motivator.

83. **Millennium Development Goals Conditional Grant Scheme (MDGs CGS).** In 2005, Nigeria successfully negotiated a US\$18 billion debt relief package from the Paris Club of creditors, giving rise to annual debt savings of roughly US\$1 billion. The Conditional Grants Scheme (CGS) channels these debt relief gains (DRGs) to States and local Government areas (LGAs) in a bid to address Nigeria's most pressing developmental needs and catalyze the achievement of the MDGs. States and LGAs apply competitively for grants from the CGS, which is dedicated to supporting sectoral initiatives, to help attain the MDGs.

84. **Under the Scheme, States and LGAs are Required to Provide Matching Counterpart Funds for Supported Projects in Priority Sectors and Areas.** Access to grants is conditioned on several criteria including a needs assessment, community participation, public expenditure reforms and modernization of State budget processes. Though there has been no formal evaluation of the Scheme, an assessment of a sample of State projects funded by the CGS between 2007 and 2009 shows that the CGS has largely met its objectives with high completion rates of 98 percent in 2007, and 88 percent in 2008. The Scheme's success has been attributed to wide stakeholder engagement, competitive access to funds, flexibility to State priorities and accountability for funds. Furthermore, by requiring States to have public sector reforms underway, particularly in managing public expenditure and developing human capacity, as part of the criteria for applications, the grant can be used to successfully leverage reform in the public sector.

86. **Brazil's Family Health Program (PSF):** Created in 1994, the Family Health Program is a primary care Program which seeks to provide a full range of quality health care to families in their homes, at clinics and in hospitals. Based on this approach, the family health team includes doctors, nurses, dentists and community health agents. In 1998, due to the slow uptake of the Program by municipalities, the PSF performance based financing scheme was implemented to provide incentives, as cash grants, to municipalities to establish the Program and expand to the poorest Brazilians. A flat one-time transfer is provided by the Federal

Government for establishing each new PSF team and variable transfers are given to incentivize continuous coverage extension.

88. Recent Reforms have Focused on Improving Coverage, Effectiveness, Quality and Efficiency of PSF. In particular in large cities with financing from the Federal Government varying according to compliance with performance indicators. There has been an increase in the number of family health teams across the country and analysis of achievements in health service indicators, such as maternal and child health (prenatal coverage) and reduction in hospital admissions for ARI and diarrhea show improvements commensurate to the level of PSF coverage in participating municipalities.

89. Argentina's Plan NACER. Plan Nacer, the provincial social insurance Program that targets uninsured pregnant women and children under six years of age, was launched in 2004 in nine provinces in Argentina with a nationwide roll-out in 2007. The objective of Plan Nacer is to provide an established MCH package of services using a capitation-based grant transfer between different levels of Government. Of the funds transferred to the Provincial Government, 60 percent are 'monthly base transfers' determined by the number of eligible beneficiaries enrolled in Plan Nacer. The remaining 40 percent of the payment is released based on the achievement of Stated targets for ten output and outcome health indicators (tracers) calculated quarterly. The Provincial government subsequently reimburses the providers- public and private- on a fee-for-service basis. Quarterly audits are carried out in each province by independent auditors who verify enrollment eligibility of beneficiaries and achievement of tracer targets. By 2009, the Program had reached 80percent of the target population in five States with significant increases in immunization rates as well as proportion of women seeking prenatal care and receiving four prenatal visits.

c. DLI 4 – Experience with Innovation and Learning Funds

92. Experience with YouWiN! Currently in its fourth cycle, Youth Enterprise with Innovation in Nigeria (YouWiN!) is a FGON initiative, with development partner support, with the objective of creating jobs and encouraging innovation and youth entrepreneurship. It is implemented through annual business plan competitions providing grants of between 1million and 10 million Naira (US\$6000 and US\$60,000) to about 1,200 to 1,500 awardees to establish new businesses or expand existing ones.

93. The Results Emerging from YouWiN! Appear Positive. People close to the Program feel that some of the factors that were helpful to YouWin! include a focus on merit, independent adjudication of proposals by business experts, placing a premium on innovation, feasibility as well as a demonstrable track record of entrepreneurial capabilities. Additionally, a systematic mechanism for grant disbursement in tranches triggered by external validation of attainment of pre-determined milestones; and capacity building through training "boot camps" and mentorship Programs for awardees have resulted in successful Program implementation.

94. **Global Experience with Challenge Funds:** Innovation and Learning Funds have been used by a number of development agencies and recent reviews¹⁵ of experience have highlighted the importance of the following:

- (i) Defining a clear and explicit rationale with a very clear and operational definition of innovation.
- (ii) Establishing transparent and predetermined criteria for awarding grants.
- (iii) Defining the maximum and minimum grant sizes and funding period.
- (iv) Defining the cost-sharing expectations and how the grant may be used.
- (v) Identifying any additional support that may be provided such as technical assistance.
- (vi) Including fund management costs which have typically represented 20-50percent of the total budget.
- (vii) Deciding on whether there should be some performance-based or additional incentive element to the grant (e.g., some additional reward for success).
- (viii) A strong emphasis on monitoring and oversight to ensure grants are not misused.
- (ix) A strong emphasis on lesson learning, evaluation and impact assessment, recognizing that success should be judged against actual and potential scope for broader uptake, not just on the success or failure of individual projects.
- (x) Weaknesses in past experience with Innovation Funds to promote innovation have included a failure to ensure that funded projects are innovative, potentially replicable, and genuinely additional, as well as paying insufficient attention to evaluating impact.

¹⁵ Sources: (i) Brain, A., N. Gulrajani and J. Mitchell, Meeting the challenge: How can enterprise challenge funds be made to work better? EPS PEAKS, April; (ii) SIDA Challenge Funds – Guidelines, Swedish International Development Agency.

