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DEVELOPING A FRAMEWORK FOR THE LONG TERM MONITORING AND EVALUATION OF NATIONAL HEALTH INSURANCE IN SOUTH AFRICA

Prepared by

Population Health, Health Systems and Innovation

Human Sciences Research Council

Contact

Name: Prof Charles Hongoro
Phone: +27 12-302-2250
Cell: +27 827378261
Email: Chongoro@hsrc.ac.za

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1. Introduction

The South African health care system has gone through several reforms since 1994, beginning with the reorganization of primary health care and health infrastructure improvements to support the Primary Health Care approach. The current health system is characterized by a large public health sector that serves the majority of the people and a relatively large private sector, both in terms of funding levels and infrastructure that serves those with medical aid or private insurance and generally those who can afford to pay out-of-pocket.

Despite significant economic growth in the early 1990s, the levels of inequality have not changed partly because of the apartheid history and partly because of the non-inclusive economic growth. The Gini coefficient for South Africa is one of the highest in the world estimated at nearly 0.7. This is manifesting itself in various forms of inequalities in access to essential services including health services against the backdrop of a quadruple burden of diseases. Those who need health services the most are less likely to access quality health services than those who are able to pay for services. Consequently, the poor and vulnerable have disproportionately poor outcomes which threatens the achievement of MDGs by 2015.

The challenges facing the health system are largely structural, that is: low levels of funding coupled by ineffective resource allocation and use; relatively more funding per capita in the private sector; more health workers in the private sector; inadequate infrastructure in the public sector to support provision of quality services; fragmented pooling and allocation of overall health system's financial resources resulting in unfair financing and poor financial risk protection. The release of the Green Paper on National Health Insurance (NHI) in August 2011 marked the beginning of major structural reforms in the health sector that seek to achieve universal health coverage (UHC) in South Africa by changing both the way the health systems is funded and how services are delivered.

1.1 What is NHI?

National Health Insurance seeks to achieve universal health coverage by ensuring that South Africans access good quality health services free at the point of use. It implies transforming the national health system's financing and delivery systems. The focus of the transformation is to create a single, publicly owned and publicly administered National Health Insurance Fund that purchases health services on behalf of the entire population from suitably accredited and contracted providers. The National Health Insurance Fund will ensure that all personal health services are free at the point of care and that the population is guaranteed financial risk protection at all times. The financing of health services will be through prepayment mechanisms that are predominantly tax funded and supplemented by other sources. The sources of funding for NHI are to be structured along the principles of health care as a public good, social

solidarity, effectiveness, efficiency and equity in line with the provisions of Section 27 of the Constitution.

1.2 The Goal and Objectives of National Health Insurance

Development of a robust monitoring and evaluation framework and related indicators for NHI must be informed by its founding goals and objectives. **The goal of NHI is to move towards universal health coverage.** Accordingly, NHI seeks to achieve the following related objectives;

1. Ensuring universal health coverage for all South Africans;
2. Improving access to quality of health services irrespective of socio-economic status;
3. Promoting equity and social solidarity through the pooling of risks and funds;
4. Creating a single, publicly owned and administered health fund with adequate reserves and funds to plan for and effectively meet the health needs of the entire population;
5. Accelerating national health system transformation;
6. Creating a single health purchaser that will ensure that health services and health products are purchased and procured at reasonable costs that recognise health care as a public good;
7. Promoting efficient and effective service delivery in both public and private sectors that will be achieved through evidence-based interventions;
8. Strengthening the under-resourced and strained public sector so as to improve health systems performance;
9. Adopting appropriate, innovative health service delivery models to respond to local needs; and
10. Ensuring continuity and portability of health service benefits across the country.

1.3 Intervention Programmes under NHI

In order to realize the set NHI objectives, specific interrelated programmes focusing on changing and strengthening both health systems financing and service delivery platforms are envisaged. Therefore NHI in South Africa puts emphasis on changing both how health services are financed

but more importantly improving the quality of health services. NHI is envisaged to be implemented in three phases:

Phase I (2012/2013 to 2015/2016): involves piloting key elements of the National Health Insurance reforms in selected ten districts. This includes testing National Health Insurance services, delivery platforms at primary care level including contracting with private providers, and delegating some management autonomy to district and facility levels especially central hospitals as part of management strengthening and preparation for National Health Insurance, and developing functional and administrative components of the National Health Insurance Fund.

Phase II (2016/2017 to 2019/2020): involves continuation of activities initiated in Phase I. New activities will include mobilizing additional revenue streams through the reprioritisation and re-allocation of all equitable share funding intended for personal health services into the National Health Insurance Fund. Generating additional revenue through the introduction of a surcharge on taxable income and promulgation of regulations for the new role of medical schemes to provide top-up cover and expansion of contracting-in to all levels of hospitals in the public sector as well as expanded contracting-in initiatives of all services at a PHC level, and

Phase III (2020/2021 to 2024/2025): involves continuing with activities undertaken in Phase I & II and expansion of contracting of identified and needed services with private sector providers. In addition, the implementation of mandatory contributions and the initiation of contracting out activities with identified accredited private providers will be undertaken.

2.0 Theory of Change for NHI

Establishing a theory of change for NHI requires a clear understanding on the different NHI components and how they relate in producing intermediate and ultimately anticipated final outcomes in the form of universal health coverage. The interrelationships between various health systems strengthening interventions including health systems financing reforms are naturally complex and also laden with several contextual assumptions. The fundamental assumption of NHI is that by changing the way resources are generated, pooled and allocated in the health system and services are provided; and by allowing those who can contribute do so on the basis of ability and those who need services get them free at point of use, NHI will facilitate the

realization of universal health coverage in South Africa. This entails attaining a health system that produces better health outcomes for all and is more responsive to the needs of the population.

The phasing of NHI interventions provides a sense of the intervention trajectories and hence the anticipated milestones or deliverables within the defined implementation time span of 14 years (2012-2025). Monitoring and evaluation of NHI will be guided by this time period and the type interventions in each phase. What is of critical importance, is that ALL programme components that have a direct or indirect impact on the realization of above stated must be covered by the framework for ongoing monitoring and evaluation purposes. The Scientific Committee in collaboration with the Steering Committee (described later) will develop an agreed logical framework that shows the theory of change of NHI over its 14 year implementation period.

3.0 Rationale for developing and M&E framework for NHI

To strengthen NHI in South Africa, it is critical to monitor and evaluate its implementation in order to assess whether NHI is in fact moving towards the goal of universal health coverage and realizing its specific policy objectives outlined by the National Department of Health in the Green Paper. Monitoring and evaluating the journey towards universal health coverage from the beginning phases of NHI roll-out will inform the implementation of later phases and future policy direction, provide much needed evidence to inform the scale-up of interventions, and will inform gains achieved, lessons learnt and remaining challenges.

Monitoring and evaluating the achievement of these goals requires an integrated data set, imbedded in existing repeat surveys (cross-sectional or longitudinal) that are currently funded or where gaps exist to establish new reporting data collection systems. The information derived from this effort will assist the government, citizens and the NHI Fund on the extent to which the NHI is meeting its policy objectives. The decision of what data to collect needs to be structured around key areas to be investigated:

- Changes in revenue generation and pooling of funds

- The extent of the NHI on population and service coverage at national, provincial and district levels,
- Changes in how services are purchased through the purchaser provider split
- Changes in the way services are used,
- Efficiency with which services are delivered,
- Improvement in financial risk protection for individuals as well as for the NHIF,
- The extent to which different provider payment mechanisms impact on productivity, costs and quality of health services,
- Cost effectiveness of innovative service delivery platforms under the NHI,
- The impact of epidemics of communicable and non-communicable diseases on the NHIF, and
- Overall improvement in the health of the population.

Answering questions related to these areas will provide an overarching view of how the proposed National Health Insurance is progressing and contributing to realizing the set goals. This is indeed a huge task that requires dedicated resourcing and intellectual capacity to engage with the complex and interlinked interventions that will be implemented over the next 14 years. Countries that have implemented successful universal health coverage have done so with the support of strong research and monitoring and evaluation capabilities that were responsive to the changing needs of the reformed health system.

4.0 Monitoring and Evaluating the Implementation of NHI

As aforementioned, systematic monitoring and evaluation of a large reform such as NHI is understandably complex. It requires a comprehensive set of indicators to measure progress towards universal coverage, equity and solidarity in risks and funds pooling, integration of public and private sectors, public health systems strengthening, strategic purchasing and contracting, provider payments, efficient and effective services delivery, continuity and portability of services, health outcomes and associated risk factors will be developed by a duly constituted project team.

4.1 Goals for the Monitoring and Evaluation Framework

The proposed Monitoring and Evaluation Framework is meant to address the following goals:

1. To construct monitoring and evaluation indicators for the entire NHI covering the following key areas:
 - a. Population and service coverage,
 - b. Equity and solidarity in risks and funds pooling
 - c. Integration of public and private sectors
 - d. Public health systems strengthening
 - e. Strategic purchasing and contracting, provider payments
 - f. Efficient and effective services delivery
 - g. Continuity and portability of services, and
 - h. Health outcomes and associated risk factors
2. To provide a framework for collection of comprehensive baseline data and follow up data using these indicators on an annual basis, and
3. To develop a robust health information data architecture to support the implementation of the National Health Insurance Fund at all levels of the health system

4.2 Specific Objectives for the Monitoring and Evaluation Framework

Monitoring of NHI suggests that specific indicators need to be identify and monitored over given periods of time to support ongoing roll-out and eventually provide baseline and time series data for the future evaluation of the NHI interventions. To guide the aforementioned, the following specific objectives need to be considered:

1. To construct baseline indicators for the entire NHI interventions:
 - a. Population coverage - proportion of population covered under NHI/composition of risk pool
 - b. Service coverage - service benefits based on efficiency and equity criteria
 - c. Financial risk protection- proportion pre-paid & households with catastrophic spending
 - d. Provider payment mechanisms-incentives for appropriate use
 - e. Administrative efficiency – percentage of expenditure on administrative costs
 - f. Service utilisation and intermediate service quality
 - g. Health status indicators
 - h. Social determinants of health, Risk factors [as critical context and background materials]

2. To provide a framework for collecting relevant baseline data for the current and all envisaged NHI interventions
3. To develop a framework to future impact studies after 4,8, and 14 years of implementation
4. To develop a robust health information architecture to support the activities of the National Health Insurance Fund at all levels of the health system

In terms of Objectives 1 to 4, this framework has been developed to support collection of comprehensive data on NHI related interventions (Appendix I). Appendix I may not be an exhaustive list of process and intermediate indicators, and outcome indicators but it provides a solid basis for the core and common metrics required for effective M&E for NHI. This initial list will be finalised for inclusion in the final list by the Scientific Committee and ratified by the Steering Committee. For example, each of the following broad implementation areas (amongst others) will be assessed using the specific indicators:

1. Health Systems Strengthening (infrastructures, human resources, quality of services, etc)
2. Financing mechanisms
3. Population registration and coverage
4. Facilities and provider accreditation process
5. Medicines and commodities procurement and distribution mechanisms
7. Access to quality health services (e.g. service benefits and utilisation)
8. Integrated referral systems, and
9. Information systems

6. The General Approach to application of the Monitoring and Evaluation Framework

Monitoring and evaluation activities for NHI need to be viewed in terms of the proposed phased implementation of NHI (2012-2025) starting with the initial piloting phase up to third phase

(2020/21 – 2024/2025). The critical period is this first five years, in which both the design aspects and implementation processes (successes and failures) for NHI are tested and systematically documented for lessons learning on an ongoing basis.

Therefore the initial assessments will cover the first block of five years ((2012 to 2016 inclusive), with a full baseline assessment construction for 2012/13 in 2014 and follow-up annual assessments in years 2014, 2015 and 2016, and a summative assessment for the first five years of piloting NHI aspects will be conducted in 2016/17. This assessment will utilise both qualitative and quantitative methods. Additionally, secondary data sources will be analysed.

Indicators developed for the entire NHI will be used to evaluate effectiveness of NHI interventions at all levels, utilizing both baseline and follow- up measures. Unlike the NHI pilot grant framework, this framework is meant to assess all critical indicators of NHI implementation beyond PHC re-engineering initiatives. In addition to quantitative estimates collected from secondary data sources and primary data using a survey questionnaire, qualitative studies will be conducted using participatory group discussions and key informant interviews in the communities and facilities.

A before and after prospective survey design will be used to conduct baseline and follow up assessments on NHI pilot interventions. Comparison control districts will not be available due to ongoing nationwide implementation of various types of health care reform. This implies that a comparison of data from the same district before and after the pilot interventions is the most feasible option to estimate changes in health care delivery as a result of introducing NHI interventions.

The purpose of the monitoring and evaluating NHI framework is to measure the effect of NHI interventions on health status and on the health system. In addition, a systematic documentation of the context will also be done. It will therefore be important to use other survey data from Stats SA, HSRC, HST and MRC and other appropriate institutions to evaluate the contribution of these external factors on health status and the health system, separate to the contribution of NHI interventions.

Specific studies will be commissioned to collect additional and complementary data from key informants, communities, learners and beneficiaries of NHI services. Both approaches will cover the structures, processes and outcomes of programmes and functions intended to support the NHI. Local and national surveys will be the major sources of data (StatsSA, HSRC, SAMRC, and others).

This general approach to the initial 5-year cycle of assessment will form the basis for future assessments of NHI in 2017-2020 and 2024-25. Clearly, the suite of activities to be looked at will differ between these periods but core metrics around universal health coverage will not change to allow for longitudinal assessments of NHI interventions and measurement of medium to long term effects of NHI including sustainability assessments.

6.1 Monitoring and Evaluation over the implementation period (2012-2025)

6.1.1.0 Phase 1: 2012 -2016 (first 5 year cycle)

For the first 5-year cycle, monitoring and evaluation of the NHI interventions will be conducted in three stages:

- Stage 1(2012/14): Construction of baseline indicators and baseline assessment
- Stage 2 (2014-2015): Baseline assessments of new sites and follow-up assessments on original sites
- Stage 3 (2016): Follow-up assessments and summative evaluation

During these 3 assessment stages, qualitative and quantitative data will be systematically collected and desktop reviews and analysis will be conducted concurrently. These stages are described in turn.

6.1.1.1 Stage 1 (2013/14): Baseline Assessment

A baseline survey (baseline year 2014) will be conducted over a 6-month period to establish baseline estimates of population coverage (proportion of population covered under NHI/composition of risk pool), service coverage (service benefits based on efficiency and equity criteria), financial risk protection (proportion pre-paid & households with catastrophic spending), provider payment mechanisms (incentives for appropriate use), administrative efficiency (percentage of expenditure on administrative costs), service utilisation and intermediate service quality indicators), health status indicators and other relevant process indicators related to health systems strengthening (Appendix I).

The evaluation will also draw from existing secondary data sources (for example, District Health Information System, Basic Accounting System, District Expenditure Reviews, Demographic Health Surveys, Household Expenditure Surveys, Community Living Standards Surveys, South African National Health and Nutritional Survey, National Facility Audit Assessment and others) as well as primary data collection at facilities and in communities.

6.1.1.2 Stage 2 (2014-2015): Annual NHI assessments

Following the construction of baseline indicators in Phase 1, follow-up assessments of the NHI interventions will be conducted annually (2014-2015), that is Phase 2. This will be done in order to monitor progress of reaching the objectives and sub-objectives of NHI. Monitoring what is working and what is not working in pursuit of these objectives and sub-objectives is critical for a full understanding of what mechanisms are most effective in improving health outcomes and what mechanisms must be scaled-up and better supported in order to reach the NHI interventions' goals. The findings from the annual assessments will be used to inform the NHI project implementation team and the National Department of Health on how to improve the workings of the new system including additional data points that might be relevant for decision making at various levels (NHIF, National and Provincial Departments, etc).

6.1.1.3 Stage 3 (2016): Summative Evaluation

In years 2014 and 2015 indicators will be measured to evaluate health status, health system process indicators in each of those years. At the end of 2015 there will be data collected from three time points – namely baseline (T-0), year 1 follow-up (T-1) and year 2 follow-up (T-2). This will enable the summative evaluation in 2016 for the NHI pilot districts to be conducted.

The summative evaluation will estimate the variation in the indicators over the three time points in years 2013, 2014 and 2015. Statistical analysis will then determine whether there has been significant change in each indicator over the three time points; and whether such changes are attributable to the NHI interventions. The performance of specific NHI interventions (e.g. NHI information system, contracting models, referral systems, provider mechanisms, single public fund, governance arrangements at district, hospital and Fund level, etc) will also be assessed through sub-studies or analyses.

6.1.2.0 Phase II: 2017 -2020 (Second 4 year cycle)

During this phase new interventions will be added included greater managerial delegations, pooling of existing funds and expansion of NHI activities in other districts. The Steering Committee and Scientific committee will review monitoring and evaluation indicators and include new ones as per the additional reforms (as per transitional arrangements for NHI). Ongoing data collection for longitudinal analyses will continue and specific studies conducted to complement routine data collected as part of monitoring NHI.

6.1.3.0 Phase III: 2021 -2025 (Third 4 year cycle)

Complex and large reforms such as NHI require constant review of its performance and the underlying reasons that may impact that performance. During this phase a third round new interventions such as mandatory contributions and new revenue streams will be introduced which require monitoring. An impact evaluation will be conducted using the agreed core set of indicators to both assess changes in desired outcomes and also the sustainability of these

outcomes (though time series analyses). A 10 year and 14 year review of the NHI in South Africa is important to guiding any future reforms and policy directions.

6.1.4 Data Analysis Plan

The data analysis plan will comprise of several components (see Phases and sub-studies), all of which will contribute to the entire evaluation of NHI in three 5-4-4 year cycles of evaluation. There will be a quantitative and qualitative data analysis plan; and desk top reviews of the existing surveys mentioned in the general approach to extract appropriate data to add to the primary data generated through routine monitoring and evaluation. Qualitative data will serve mainly to explain or deepen understanding of the process and observed quantitative findings. In addition, qualitative data will provide insights into patient and community satisfaction with NHI services in general, a key finding in and of itself.

6.3 Outcome analysis

6.3.1 Phase 1: 2012 -2016 (first 5 year cycle)

The primary outcome is significant improvement in the indicators for health status, health system processes and performance (outputs) over the two follow-up time points as compared to the baseline (Baseline is T-0, the first follow-up in 2014 is T-1; the second follow-up in 2015 is T-2.)

The summative evaluation consists of a comparison of variance of the indicators over the 4 year time course, which will be tested for statistical significance using chi-squared test for trend. Differences in indicator differences will be assessed using chi-squared test for associations, and t-tests of analysis of variance for comparison of mean values. The primary model that will be used to detect significant changes over the years 2013 – 2015 will be Repeated Measures Analysis of Variance for indicators that are measured on a continuous scale or alternatively its nonparametric equivalent for non-normally distributed indicators. This later model takes into account possible confounders and risk factors. ANOVA will be the primary model used to detect significant change in each of the indicators over the years 2013 – 2015. Potential covariates and

interaction terms include demographic variables (such gender, age, marital status, ethnicity); as well as determinants outside the health sector (such as type of housing, employment income, access to health facilities).

6.3.2 Phase II: 2017 -2020 (Second 4 year cycle)

The second four year cycle analysis will build on the first one in which an augmented list of indicators as used based on additional NHI components introduced during that year. Time series analyses will now be conducted over a 10 year period for those core NHI components and the process evaluation will simply build on the first one.

6.3.3 Phase III: 2021 -2025 (Third 4 year cycle)

The third four year cycle analysis will build on the first one in which an augmented list of indicators as used based on additional NHI components introduced during that year. Time series analyses will now be conducted over a 14 year period for those core NHI components and the process evaluation will simply build on the first one. A 14 year review report will be generated from this assessment with the additional component on sustainability analysis and options for improving the system.

6.4 Sources of data, tools and data validation process

Data will be collected from the routine health information systems from the Department of Health and National Health Insurance Fund and NHI pilots; national surveys, commissioned studies focusing on specific issues; secondary sources from STATSA, MRC, HST, and universities that might have conducted specific studies around NHI.

Various tools including data extraction templates, questionnaires, interviews guides and FGD guides will be developed by the assessment team. All tools and data collection methods will be validated by a Scientific Committee and the Steering Committee to ensure that robust methods and data are collected for ongoing monitoring and evaluation.

6.5 Data collation and storage and accessibility

Data will be stored in a specially designed data base that will be kept by the NHI Fund and will be accessible to the DoH and other authorized agencies such as universities and research councils for analyses. A clear strict protocol will be defined by the NHI Fund and DoH for data access to ensure confidentiality and privacy, and most importantly security of patients and the country.

7. Partnerships

The monitoring and evaluation will ideally be conducted independently by a multidisciplinary team of researchers at the Human Sciences Research Council (HSRC), the Health Systems Trust (HST), the South African Medical Research Council (MRC) and other related agencies; partnership with different stakeholders will be key to the success of monitoring and evaluation of NHI. To achieve this, it is envisaged that the researchers will work closely with representatives from the National Department of Health NHI Project Team, the Head of each Provincial Department of Health, National Department of Basic Education, the Head of each Provincial Department, District Management Teams, the NHIF, private providers and hospitals. Amongst other issues to be addressed by this partnership, will be the development of additional indicators for some of the NHI interventions that are specific to a geographic area and its socio-cultural and economic circumstances.

Each Provincial Department of Health will be invited to nominate representatives who will constitute a research support team for the Monitoring and Evaluation of the NHI interventions. This team will work closely with the researchers in each Province and will receive schedules of the planned conduct of the Monitoring and Evaluation, progress reports on the data collection.

8. Ethical considerations

The monitoring and evaluation of NHI will involve direct participant contact, and because of this informed consent will be obtained from both patient and healthcare staff during facility-based assessments, and members of the community who will participate in community surveys, focus

group discussion and key informant interviews. Ethical approval will be obtained from the Human Sciences Research Council or other relevant ethics committees.

9. Steering Committee

There must be steering committee that will function as an advisory committee. The following organizations can be invited to appoint members to the Steering Committee:

- Departments of Health: national and provincial
- NHI Project team
- Human Sciences Research Council (HSRC)
- South African Medical Research Council (SAMRC)
- Health Systems Trust
- Other strategic agencies

10. Scientific Committee

A scientific committee (SC) must be established made up of the research team, selected members of the Minister's Advisory Committee for the NHI, other policy specialists. All members must serve on the committee in a voluntary capacity. Travel expenses, to attend meetings, will be reimbursed from the budget allocated for such an assessment. Members will be appointed to the panel representing the following areas:

- Health economics specialists
- Research methodologist, evaluation and monitoring specialists
- Epidemiology specialists
- HIV/AIDS, TB, non-communicable diseases, injuries and trauma specialists
- Statistics specialists
- Maternal and infant mortality specialists
- Paediatric care specialists
- Health systems specialists
- Public health specialists
- Policy specialists

- NHI international and national experts
- Representatives from the Departments of health (National, Provincial and District)
- Representative from other government departments (Department of Basic Education (DBE), Department of Home Affairs (DHA), Department of Social Development (DSD), and National Treasury etc.)

In the first 12 months, the scientific committee is expected to meet four times a year. In the subsequent years the committee will meet twice a year to review the plans for each phase and assess progress made.

- The first meeting in the first year will be to receive a detailed briefing on the NHI monitoring and evaluation from the DoH and NHI MAC.
- The second meeting will review the proposed approaches, advice and make recommendations to the researchers on aspects such as: the methodology to be used, data collection methods, tools and data sources, analysis methods and required expertise and the proposed or scheduled reporting.
- The third meeting will review progress and address challenges experienced in implementing the framework.
- The fourth meeting will be to review the preliminary findings from the data collected in phase 1 of the monitoring and evaluation. The researchers will prepare a draft report each year and the committee will be expected to review and comments on the report.

11. Dissemination Plan

Results from the 3 review cycles will be disseminated to National and Provincial Departments of Health, policy makers, the Ministerial Advisory Committee on the NHI and all key stakeholders

including the concerned district communities and the scientific community through feedback sessions, meetings, conference presentations and publications, after consultation with the DOH.

12.0 Broad Implementation Plan for NHI Monitoring and Evaluation

The monitoring and evaluation framework covers the three implementation phases of NHI as shown in the table below.

| PHASE/YEAR | | 2012 - 20116 | 2016 - 2020 | 2020 -2025 |
|---|---|---------------------|--------------------|-------------------|
| Phase I: 2012 -2016 (first 5 year cycle) | Stage 1 (2013/14): Baseline Assessment | | | |
| | Stage 2 (2014-2015): Annual NHI assessments | | | |
| | Stage 3 (2016): Summative Evaluation | | | |
| Phase II: 2017 -2020 (Second 4 year cycle) | | | | |
| Phase III: 2021 -2025 (Third 4 year cycle) | | | | |

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Appendix 1: Core and Common indicator Matrices for NHI Monitoring and Evaluation

The core domains for monitoring and evaluation of NHI will include the following:

- NHI specific interventions for Universal health coverage – Core outcome metrics including population coverage, service coverage and cost coverage
- NHI specific interventions for UHC- Core- process/intermediate metrics (e.g. institutional arrangements)
- Health systems strengthening activities (NHI enablers), and
- Health outcomes

a) Core UHC metrics including population coverage, service coverage and cost coverage

| Domain | Indicator | Sources |
|-------------------------------------|---|---|
| 1. POPULATION COVERAGE | <ul style="list-style-type: none"> • Percentage of population covered • Number of primary health care clinics per administrative unit • Number of hospital beds per administrative unit • Population access and utilisation rate • Patient satisfaction | <ul style="list-style-type: none"> • NHIF information system • Routine Health Information Systems • National surveys • Commissioned studies |
| 2. FINANCING MECHANISMS | <ul style="list-style-type: none"> • Revenue generation • Pooling of funds • Purchasing • Provider-payment mechanism • Procurement of goods | <ul style="list-style-type: none"> • NHIF information system • Routine Health Information Systems • National surveys • Commissioned studies |
| 3. FINANCIAL RISK PROTECTION | <ul style="list-style-type: none"> • Proportion of benefiting population • Ratio of prepaid contributions to total health care costs • Percentage of households with catastrophic health care spending • Out-of-pocket health expenditure as a percentage of total health expenditure | <ul style="list-style-type: none"> • NHIF information system • Routine Health Information Systems • National surveys • Commissioned studies |

| | | |
|---|---|---|
| 4. POPULATION USE OF NHI HEALTH SERVICES | <ul style="list-style-type: none"> • Percentage of patients accessing the appropriate level of care • Level of services covered (primary, secondary, tertiary, and emergency medical services) • Extent of service coverage (health promotion, prevention, diagnostic and curative care) • Essential medicines and equipment list | <ul style="list-style-type: none"> • NHIF information system • Routine Health Information Systems • National surveys • Commissioned studies |
| 5. ADMINISTRATIVE EFFICIENCY | <ul style="list-style-type: none"> • Number of administrative offices • Percentage of expenditure on administrative costs to total costs • Payment turnaround rates • Number of complaints from providers and beneficiaries | <ul style="list-style-type: none"> • NHIF information system • Commissioned studies |
| 6. LEADERSHIP AND GOVERNANCE | <ul style="list-style-type: none"> • Availability of policy and supportive legislation • Availability of a Policy Champion • Involvement of the public in governance, planning and implementation | <ul style="list-style-type: none"> • NHIF information systems • DoH • Commissioned studies |

b) NHI specific interventions for UHC- Core- structure/process/intermediate metrics

| Domain | Indicators | Sources of data |
|---|---|---|
| 7. ESTABLISHMENT OF NHI PROJECT TEAM | <ul style="list-style-type: none"> • Recruited NHI project team • Set-up of project team offices and infrastructure | <ul style="list-style-type: none"> • Ministry/Department of Health |
| 8. INSTITUTIONAL & | <ul style="list-style-type: none"> • NHI bill drafted | <ul style="list-style-type: none"> • Ministry/Department |

| | | |
|--|---|---|
| GOVERNANCE ARRANGEMENTS | <ul style="list-style-type: none"> • NHI law enacted • NHIF fund established • Establishment of enabling legislation • NHIF CEO recruited • Establishment of NHI Fund, • Establishment of National Health Commission | <ul style="list-style-type: none"> • of Health • Parliament |
| 9. ACCREDITATION OF HEALTH FACILITIES AND PROVIDERS | <ul style="list-style-type: none"> • Number of NHI accredited facilities and providers • | <ul style="list-style-type: none"> • NHI Fund • OHSC |
| 10. STRENGTHENING MANAGEMENT CAPACITY AT DISTRICT AND FACILITY LEVELS | <ul style="list-style-type: none"> • Number of DHA created • Number of hospital boards established & strengthened • Number of clinic committees revitalized • Number hospitals with CEOs • Number of hospitals with increased managerial delegations | <ul style="list-style-type: none"> • Department of Health • NHI Fund |
| 11. NHI SERVICES LIST (AND ASSOCIATED GUIDELINES AND FORMULARIES) | <ul style="list-style-type: none"> • NHI service list (and associated guidelines and formularies, referral system) | <ul style="list-style-type: none"> • NHI Fund • DoH |
| 12. CONTRACTING OF PROVIDERS (PUBLIC AND PRIVATE) | <ul style="list-style-type: none"> • Number of contracts by facility and provider | <ul style="list-style-type: none"> • NHI Fund • |
| 13. DEVELOPMENT OF DRGS | <ul style="list-style-type: none"> • Hospital DRGs (inpatient and outpatient) • | <ul style="list-style-type: none"> • DoH |
| 14. PAYMENT OPTIONS (E.G. CAPITATION, DRGS, SALARY ETC) | <ul style="list-style-type: none"> • Number of facilities and providers by payment option | <ul style="list-style-type: none"> • NHI Fund • |
| 15. POPULATION REGISTRATION | <ul style="list-style-type: none"> • Number of people registered (by type facility and provider especially for PHC) • Number of people with NHI identification (enhanced ID) | <ul style="list-style-type: none"> • NHI Fund • DoH • DHA • • • |
| 16. HEALTH INFORMATION SYSTEMS | <ul style="list-style-type: none"> • Development of HIS & IT architecture for NHIF • Functional IT system as per business requirements | <ul style="list-style-type: none"> • NHI Fund • DoH • |

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| 17.SERVICE DELIVERY PLATFORMS (E.G PHC RE-ENGINEERING) | <ul style="list-style-type: none"> • Number of PHC streams successfully established (Ward based Community Health Teams, District Clinical Specialist Teams, Integrated school health programme, GPs contracted in for sessions) | <ul style="list-style-type: none"> • DoH • NHI Fund • |
| 18.ROLL OUT NHI | <ul style="list-style-type: none"> • Number of NHI pilot districts • Number of districts under NHI (scale-up or roll out of NHI) • | <ul style="list-style-type: none"> • DoH • NHI Fund • |

c) Health systems strengthening activities (NHI enablers)

| DOMAIN | INDICATORS | SOURCES OF DATA |
|--------------------------------------|---|---|
| 19.QUALITY IMPROVEMENT | <ul style="list-style-type: none"> • Norms and Standards for health facilities (including core standards) • Number of facilities certified by OHSC (by type & level) • Number of health facility inspections • Number of health care workers trained in various aspects (CPD) | <ul style="list-style-type: none"> • DoH • NHI Fund • OHSC |
| 20.INFRASTRUCTURE | <ul style="list-style-type: none"> • Number health facilities built by type and level • Number health facilities renovated by type and level • Essential high cost equipment installed | <ul style="list-style-type: none"> • DoH |
| 21.HUMAN RESOURCES FOR HEALTH | <ul style="list-style-type: none"> • Number of additional health professionals (essential for delivering the NHI services) by categories • Per capita numbers by health professional group • Number of CHWs | <ul style="list-style-type: none"> • DoH |
| 22.MANAGEMENT AND LEADERSHIP | <ul style="list-style-type: none"> • Establishment of supportive institutions e.g. Academy of Leadership • Number of health care managers trained in leadership and management | <ul style="list-style-type: none"> • DoH |

d) Health Status Indicators

| INDICATORS | MEASURES | DATA SOURCES |
|------------------------------------|---|---|
| 23.LIFE EXPECTANCY AT BIRTH | <ul style="list-style-type: none"> • Years to live at birth | <ul style="list-style-type: none"> • DoH • NHI Fund • National surveys |
| 24.MORTALITY | <ul style="list-style-type: none"> • Maternal mortality rate per 100 000 live births • Infant (first year) mortality rate per | |

| | | |
|--|--|--|
| | <ul style="list-style-type: none"> 1000 live births • Perinatal (first 14 days plus still births) mortality rate per 1000 live births • Child (under five) mortality rate per 1000 live births | |
| 25. COMMUNICABLE DISEASES | <ul style="list-style-type: none"> • HIV prevalence (adults age 15-49) per 100000 • Rate of AIDS deaths • TB incidence (percentage developing TB per 100000) • TB cure rate • TB deaths • Influenza and pneumonia deaths • Vaccination rates | |
| 26. NON-COMMUNICABLE DISEASES | <ul style="list-style-type: none"> • Diabetes prevalence (percentage random blood glucose > 7 mm/L) • Cancer prevalence • Hypertension prevalence (BP>140/80) • Incidence of myocardial infarction • Deaths from myocardial infarction • Prevalence of heart failure • Incidence of stroke • Stroke deaths • Renal failure prevalence • Number on renal dialysis, Numbers of renal transplants • Obesity rates (percentage of district population with BMI ≥30 kg/m²) • Glucose intolerance (Fasting/random blood glucose) • Hypertension (Mean systolic blood pressure) • Prevalence of asthma | |
| 27. MALNOURISHMENT | <ul style="list-style-type: none"> • Children (under five) underweight rate • Percentage insufficient food intake | |
| 28. MENTAL HEALTH | <ul style="list-style-type: none"> • Suicide rates • Prevalence of depression, stress, and anxiety | |
| 29. DISABILITY | <ul style="list-style-type: none"> • Percentage of population in district disabled | |
| 30. MUSCULOSKELETAL HEALTH | <ul style="list-style-type: none"> • Prevalence of joint pain, back pain • Prevalence of rheumatoid arthritis • Prevalence of osteoarthritis | |
| 31. OVERALL HEALTH SYSTEMS RESPONSIVENESS | <ul style="list-style-type: none"> • Patient satisfaction | |