# JOINT ANNUAL HEALTH REVIEW 2015

## Strengthening grassroots health care towards universal health care

### Executive summary

The 2015 Joint Annual Health Review (JAHR 2015) is the 9th annual report compiled by the Ministry of Health (MOH) together with the Health Partnership Group. This year's report assesses progress in implementing tasks of the Five-year plan 2011 – 2015 and analyzes the socio-economic context and health status of the people to serve as a basis for developing the Five-year plan 2016 – 2020. The JAHR 2015 report also focuses in-depth analysis on "Strengthening grassroots health care towards universal health care." The report is divided into three parts, with six chapters, which are summarized below.

## PART ONE: IMPLEMENTATION OF THE PLAN FOR PROTECTION, CARE AND PROMOTION OF THE PEOPLE'S HEALTH 2011 – 2015

### Chapter I: Socio-economic context, health and determinants

### 1. Socio-economic context affects the health system

#### 1.1. Strengths

The Vietnamese economy has overcome many difficulties and challenges and achieved promising results. The macro-economy has been stabilized, inflation controlled, growth recovered and maintained at reasonable levels; quality of growth in several sectors has improved and economic competitiveness has gradually been strengthened. Strategic measures and economic restructuring have achieved initial promising results. Social security has been assured and welfare improved. International diplomacy and global integration have been strengthened.

#### 1.2. Challenges

The macro-economy has recovered somewhat slowly, remains unsteady, with growth slower than in previous periods. Economic competitiveness and attractiveness of the business environment in the country remain low. A comprehensive strategy to actively cope with adverse effects of globalization and international integration. and the negative side of industrialization and urbanization is not yet in place. The impacts of social mobilization, commercialization and privatization are not yet effectively controlled. Comprehensive reform measures are needed in the organization of service delivery to appropriately respond to the current situation.

### 2. Health status and determinants

#### 2.1. General health indicators

**2.1.1. Achievements**

General health indicators such as life expectancy, the maternal mortality ratio (MMR), infant (IMR) and under-5 (U5MR) mortality rates and child malnutrition rates continued to improve substantially over the past 5 years.

**Table 1. General health indicators, 2010 – 2014**

| Indicator | 2010 | 2015 | Comment |
|---|---|---|---|
| Life expectancy (male/female) | 72.9 (70,3 – 72,9) | 73.3(70.7/76.1) | |

| Indicator | 2010 | 2015 | Comment |
|---|---|---|---|
| MMR per 100 000 live births | 69 (2009) | 58.3 | * Est. 2015 |
| IMR per 1000 live births | 15.3 | 14.7 | |
| U5MR per 1000 live births | 23.8 | 22.1 | |
| Child malnutrition rate (< 5 years) (%)<br>-Underweight<br>-Stunting | <br>17.5<br>29.3 | <br>14.1<br>24.2 | |

### 2.1.2. Challenges

***Disparities in basic health indicators*** across regions and population groups have seen only slow improvements or even increased (child malnutrition). In 2014, the ratio between the region with the worst and the best health outcomes was 1.1 for life expectancy (a 6.4-year gap); 2.9 for infant mortality rate and 2.7 for child malnutrition.

***Reductions in child mortality in the past 5 years have slowed substantially,*** with an annual decline of only 0.2 deaths to children under age 1 and 0.3 deaths to children under age 5 per 1000 live births. Vietnam is unlikely to achieve the Millennium Development Goal (MDG) of reducing U5MR by 2015.

***Qualitative health indicators show low achievement.*** In 2014, healthy life expectancy reached only 66.0 years; stunting remained high at 24.2% with long term health effects. The child overweight rate has increased six fold since 2000, reaching 4.8% in 2010.

## 2.2. Morbidity and mortality

The burden of disease structure is changing, with NCDs accounting for the highest share, and continuing to rise. In 2012, NCDs accounted for 72.9% of mortality, 66.2% of DALYs and 59.7% of years of life lost (YLL). The burden of disease from four major NCD groups is rising, including cardiovascular disease, cancer, COPD and diabetes, along with accidents, injuries and intermediate risk factors like hypertension, obesity, and high cholesterol.

***The NCD burden creates enormous challenges to the health system*** due to: (i) low awareness about NCDs among the population; a high share of undiagnosed and untreated cases; (ii) rapid rise in NCDs causing high financial burden on poor households; (iii) scant state investments in NCD prevention and control activities compared with the high burden of disease; and (iv) limited capacity to provide services for prevention and management of NCDs in the health system, particularly at the grassroots level.

***The burden of disease due to communicable disease has clearly declined, but many challenges remain.*** Vietnam is ranked 12th in terms of TB burden and 14th in terms of MDR-TB burden worldwide; drug resistance of the malaria parasite is increasing. Communicable diseases are becoming more difficult and costly to treat. The burden due to HIV remains heavy; nearly 50% of people in need of treatment are unable to access ARV, while about one third of people only start treatment once the disease is advanced and immunity severely compromised. Vaccine-preventable diseases continue to threaten health. Vietnam is a hotspot for newly emerging communicable diseases.

## 2.3. Health determinants

***Demographic factors:*** The most concerning factor is pressure from rapid population aging. With the elderly share of the population rising from 7.1% in 1989 to 8.7% in 2009 and 10.2% in 2014, Vietnam is one of 10 countries with the most rapid rate of aging, yet the health system is unprepared to respond. Imbalance in the sex ratio at birth at alarming levels, large population size and uncontrolled spontaneous migration also create substantial challenges for the health system.

***The greatest socio-economic challenge*** is the large disparity in per capita income between regions and population groups. The poverty headcount index has fallen rapidly but is not yet sustainable, and some provinces still have high poverty rates like Lai Chau (35.3%) and Dien Bien (33.0%). The unemployment and underemployment rates are high among youth. In the Mekong Delta 31.9% of households still live in temporary dwellings. The literacy rate among the population aged 15 and older is only 93.3% in rural areas and 89% in the Northern mountains. Only 21.9% of workers have diplomas or training certificates.

***Environmental factors:*** Vietnam is one of 6 countries most affected by climate change and one of 5 countries with extremely high risk of natural disasters. Environmental pollution is worsening; the urbanization is occurring rapidly, with strong adverse environmental effects. Food contamination due to use of banned chemicals in animal husbandry and food processing is a pressing problem without any effective methods for control.

***Lifestyle and behavioral risk factors:*** *Smoking causes* about 16.9% of total deaths and 8.8% of burden of disease measured in DALYs in Vietnam. Violations of non-smoking areas are commonplace; secondhand smoke exposure remains high. *Alcoholic beverage consumption per capita has grown rapidly,* causing 5.7% of deaths and 4.7% of burden of disease measured in DALYs. *Unhealthy diet* due to excess calories, overconsumption of meat, foods with excessive salt, sugar and saturated fats causes 23% of total deaths and 9.5% of total burden of disease. About 28.7% of people aged 25 to 64 get inadequate physical exercise; 23% of youths report low levels of physical activity. Social vices like narcotic use, sex work and related crimes persist, particularly in major cities.

## Chapter II: Implementation of the Plan for the protection, care and promotion of the people's health 2011 – 2015

### 1. Health resources for health (HRH)

Almost all indicators on HRH for 2010 – 2014 have met the 2015 target. (Table 2)

**Table 2. Results for basic HRH indicators, 2010 – 2014**

| Indicator | 2010 | 2011 | 2012 | 2013 | 2014 (est.) | 2015 (est./target) |
|---|---|---|---|---|---|---|
| Doctors per 10 000 people | 7.20 | 7.33 | 7.46 | 7.61 | 7.8 | 8.0/8.0 |
| University-trained pharmacists per 10 000 people | 1.76 | 1.9 | 1.96 | 2.12 | 1.9 | 2.2/1.8 |
| Share of villages served by VHWs (%) | 97.5 | 96.9 | 96.6 | 96.0 | 95.0 | 95.9/90 |
| Share of CHS served by doctor (%) | 70.0 | 71.9 | 73.5 | 75.0 | 78.0* | 78.0/80 |
| Share of CHS with midwife or obstetric/pediatric assistant doctor (%) | 95.6 | 95.3 | 96.4 | 96.0 | 98.0 | 96.0/>95 |

**Includes communes with doctors working 3 + days per week. CHS=commune health station; VHW=village health worker.*

#### 1.1. Policy development

In the period 2011 – 2015, major HRH policies were issued or came into effect including the Law on Government Employees, the Law on Examination and Treatment and the Master Plan for HRH Development for the period 2012 – 2020.

#### 1.2. HRH training

***Implementation results:*** *The network of HRH training establishments has expanded:* By 2014 there were 173 schools nationwide, 35 of which are providing university-level training. The number of government health workers increased considerably from 344 876 in 2010 to 424 237 in 2013. The number of doctors increased rapidly, on average 6.5%

per year. *VHW standards,* functions, tasks, and *basic competency standards* for general practitioners, nurses and midwives have been issued. *Post-graduate training was strengthened.*

***Difficulties and shortcomings:*** Competency-based training is still not being implemented. Accreditation of curricula and training facilities is impeded due to lack of human resources, funds and management software. Quality of recently graduated health workers is uneven. The number of secondary level trainees exceeds deployment needs. Inadequate links exist between training and deployment of government health workers. Grassroots HRH are still insufficient in number and limited in knowledge and practical skills, particularly doctors.

### 1.3. Effective, equitable management and deployment of HRH

***Implementation results:*** Facility licenses have been issued in 95% of MOH hospitals, 25% of sectoral hospitals, 65% of local hospitals. Practice certificates have been issued to 92% of health workers in MOH hospitals, 67% in sectoral hospitals and 89% of local hospital health workers. Many important policies related to recruitment, use and remuneration of health workers have been issued, amended or refined. Project 1816 and the project sending volunteer doctors to serve remote areas are being implemented, yielding important effects. Centers/Institutes for training health sector managers have been established.

***Difficulties and shortcomings:*** A standard 18-month practical training curriculum in hospitals is not yet in place as required by regulations. Continuing medical education (CME) is still not linked to issuing medical practice certificates. Policies on recruitment, deployment and remuneration of health workers are inadequate, with few incentives for staff performance. Master planning, HRH planning and management are still limited; with insufficient information and standardization. Management capacity of health workers at all levels remains limited.

## 2. Health financing

### 2.1. Mobilizing financial resources

***Implementation results:*** Planned budget spending on health in 2014 reached 8.2% of state budget, an increase from 7.7% in 2010. Between 2011 and 2015, real growth in budgeted public spending increased 10.2%, higher than real growth in overall state budget. Health insurance coverage rates and funds per member increased. The tobacco control fund has begun to be used for health-related activities. Projects 47, 930 received funding from government bonds to upgrade health facilities. External assistance funds were maintained at 2% of total health spending.

***Difficulties and shortcomings:*** The public spending share of total health expenditures in 2014 declined slightly compared to 2010, making it difficult to achieve the target of 10% of state budget allocated to health. Latest figures in 2011 indicate that the contribution of health insurance to total curative care spending (25%) is low compared to health insurance coverage (65%). The out-of-pocket (OOP) share of total health expenditures remains high at 48.8% in 2012, and appears to be increasing. Innovations to mobilize additional health financing remain limited. Funds have been delayed or unallocated for infrastructure development and equipment procurement projects.

### 2.2. Development of universal health insurance

***Implementation results:*** The system of policies and legislation on health insurance have gradually been put in place including the revised Health Insurance Law. Health insurance coverage has grown on average 4.3% per year and reached 75.3% by end of

2015. Subsidies for health insurance premiums of the near poor were increased from 50% to 70%. State budget subsidies of health insurance premiums for social policy beneficiaries have increased, now accounting for 20% of the state health budget. Entitlements for the insured have also increased. Co-payments have been adjusted downward for some groups. In 2012, the number of healthcare visits per insured person increased 8.5% compared to 2010.

***Difficulties and shortcomings:*** Progress in expanding health insurance coverage has slowed: growth in coverage was 8.3% in 2011, falling to 2.9% in 2014. Health insurance coverage rates are low among enterprise employees (48%), among voluntarily insured (34%) and the near poor (55%). The voluntarily insured have low premiums but high rates of service use and high costs per insured member. Financial protection through health insurance is limited and has not yet improved. Vietnam Social Security (VSS) has not effectively implemented its role as strategic purchaser. Monitoring health insurance fund use has not been very effective.

### 2.3. Effective use of health financing resources

***Implementation results:*** In 2011, preventive medicine spending reached 69.8% of total state budget spending on health and 27.9% of total societal health spending. VSS has applied capped fee-for-service payments, sample-based claims auditing and tight controls over costs of drugs reimbursed. The winning bid prices of drugs have fallen 2030% compared to planned prices in many localities. The policy of public hospital autonomy has contributed to improving service delivery in public hospitals. A gradual shift is taking place towards indirect demand-side subsidies through funding health insurance premiums for some groups. The roadmap for setting user fees at full cost recovery is being implemented.

***Difficulties and shortcomings:*** State budget is not allocated according to priorities. Investment in grassroots healthcare remains too low, while the financing mechanism fails to meet requirements. National target program (NTP) funding was cut abruptly, before NTP activities could be integrated into regular service provision. Results-based allocation of state budget has only been piloted at a small scale. The adverse effects of financial autonomy and social mobilization, such as conflicts of interest and cost escalation, have not been effectively controlled. No formal arbitration mechanism is in place to deal with disputes between VSS and health facilities. Provider payment reforms are facing difficulties and challenges. Financial resource allocations and choices of services and drugs to be reimbursed by VSS are still not based on cost-effectiveness.

## 3. Pharmaceuticals, vaccines, medical equipment and infrastructure

### *3A. Pharmaceuticals, vaccines and biologicals*

### 3A.1. Refining pharmaceutical legislation

Thirty-seven legal documents on pharmaceuticals were issued, including the National Strategy for Pharmaceutical Sector Development, the Master Plan for Development of Pharmaceutical Ingredients to the year 2020 and Orientation to 2030. Revisions to the Pharmaceutical Law have been presented to the National Assembly for consideration.

### 3A.2. Drug access for the population

***Implementation results:*** The pharmaceutical supply system is extensive, and access to drugs is improving. Domestic production of drugs, particularly essential drugs, has received attention. The project "Vietnamese people prioritize use of Vietnamese drugs" is being implemented. Vietnam produces 10/12 vaccines, basically meeting EPI needs. The VI$^{th}$ essential drug list and the health insurance formulary have been issued. The latest

competitive tendering regulations are being applied to drug procurement, reducing drug prices in many localities. No abrupt or unreasonable drug price rises have occurred.

***Difficulties and shortcomings:*** Feasibility for the pharmaceutical sector to become a leading economic-technical sector is currently low. Domestic drugs only meet about 50% of the value of drugs used, mainly common pharmaceuticals. Some 90% of ingredients and packaging are imported. Determination of international and domestic reference prices has not been implemented, including periodic dissemination of drug prices procured by the state budget or VSS. Drug price management faces difficulties due to unclear allocation of responsibility between sectors.

### 3A.3. Drug quality assurance

***Implementation results:*** Vietnam applies good practice standards recommended by WHO. All pharmaceutical manufacturing facilities meet GMP standards; 100% of large-scale importers and distributors apply GSP standards. Generic drugs meeting BA/BE certification are expected to cover 40% of all active ingredients by 2020. Checking and monitoring of drug quality has been strengthened; only about 3% of drugs sampled in the market were found to be substandard. The IV$^{th}$ Vietnamese Pharmacopoeia was issued; Circular 09/2010/TT-BYT guides management and quality assurance of drugs.

***Difficulties and shortcomings:*** Manufacturing capacity of domestic pharmaceutical companies is limited, especially regarding specialist drugs. The distribution and supply system for drugs has many intermediaries leading to high costs and difficulties in monitoring drug quality. The provincial pharmaceutical quality assurance system has limited funds, equipment and materials. Production of drugs from medicinal herbs has only limited scale, production capacity and quality control.

### 3A.4. Safe and rational use of drugs

***Implementation results:*** The MOH has issued the list of over-the-counter (OTC) pharmaceuticals, guidance for clinical pharmacy activities in hospitals, and guidance for adverse drug reaction (ADR) monitoring activities and Circular No. 26/2013/TT-BYT guiding blood transfusions. Two regional centers for ADR monitoring have been set up along with a national ADR monitoring system. ADR reporting has improved over time.

***Difficulties and shortcomings:*** Clinical pharmacy activities are limited; there are insufficient numbers and inadequately skilled clinical pharmacists, and in many cases this work is done as a supplementary task of people working in other positions. Over the counter sales of prescription drugs remain prevalent. Microbial resistance is at alarming levels. Blood transfusion facilities are fragmented, small and inadequately supervised, and in some areas blood screening is inadequate; distribution of blood products among blood transfusion centers faces shortcomings in the organization of the system, administrative and financing.

## *3B. Medical infrastructure and equipment*

### 3B.1. Access to quality infrastructure

***Implementation results:*** Medical infrastructure has been strengthened thanks to projects using government bond and budget financing. By the end of 2014, construction, renovation and upgrading on 73 provincial hospitals, 598 district-level facilities was completed, and 100 new CHSs were in place. Several large central hospitals have been relocated, while others have added second campuses or new buildings. Investments in hospital waste treatment have resolved problems at 74/84 highly polluting hospitals. About

54.4% of hospitals have wastewater treatment systems, over 95% of hospitals sort and collect hazardous medical waste on a daily basis.

***Difficulties and shortcomings:*** Investments in infrastructure have been spread widely and thinly, leading to delays in putting facilities into use. Many district level preventive medicine centers lack independent facilities and means for implementing responsibilities. Investments in CHS according to Decision 950/2007/QD-TTg has not occurred due to lack of funding. No evaluation has been made on effectiveness of investments in Project 47 and 930. Funding to implement the plan for the remaining polluting health facilities, and recurrent budget to operate waste treatment facilities and enforce standards are not assured.

#### 3B.2. Medical equipment quality

***Implementation results:*** There are 48 domestic units, manufacturing 621 medical devices that have been issued certificates of free sale. A survey on availability and investment needs for some medical devices and a pilot HTA project focused on MRI investments and use in public hospitals have been implemented. Bio-electronics engineers are being trained to maintain and service medical equipment. Some 62% of general hospitals and 26.1% of specialized hospitals at the provincial and 31.9% of district general hospitals have set up medical equipment maintenance teams. Some 135 sectoral standards and 35 national standards on medical equipment have been issued.

***Difficulties and shortcomings:*** Only simple types of medical equipment/devices are being produced in Vietnam, and the target for domestic production to 60% of common medical equipment needs was not achieved. There is no medical equipment management and planning database for monitoring, evaluating, planning or managing medical devices. Standard medical equipment lists are not up-to-date. Cost-effectiveness criteria and HTA are not yet used for decisions about investments or use of costly, high tech medical equipment. Regular quality assurance is not yet compulsory for medical equipment, despite the potential risks to patient health. Capacity for assuring quality and safety of medical equipment does not yet meet requirements.

## 4. Healthcare service delivery

### *4A. Preventive medicine and public health*

#### 4A.1. Prevention of epidemics and infectious disease

***Implementation results:*** Vietnam has effectively controlled outbreaks and prevented major epidemics, while taking measures to prevent emerging diseases from affecting Vietnam's population. Morbidity and mortality from endemic diseases have been declining. Vietnam has reduced incidence of vaccine-preventable diseases compared to 1984. Capacity for disease surveillance has been strengthened.

Vietnam meets 70% or more of the basic capacities required by the International Health Regulations; has established a disease surveillance and response system; and developed advanced laboratory systems in different regions. Some 23/63 provincial preventive medicine centers meet national standards. HIV/AIDS and tuberculosis prevention and control have been strengthened. The National HIV/AIDS Control Strategy to the year 2020 and vision to 2030 was approved. VAAC continues to maintain and expand free HIV testing and counselling; prevent transmission of disease and mitigate harm; and integrate and devolve activities to districts and communes. TB detection activities have been improved, with a focus on diagnosis of AFB+ pulmonary TB through sputum smears, pediatric TB diagnosis, and the 8 month DOTS protocol. Treatment success rates since 2010 have exceeded 90%; prevalence of TB has fallen to 200/100 000 by 2014.

***Difficulties and shortcomings:*** Some communicable diseases like dengue fever and hand, foot and mouth disease still have high prevalence, with local outbreaks and continued risk of epidemic. Vaccine-preventable diseases, like measles, continue to pose a risk of outbreaks. HIV incidence remains high in the northern mountains region and major cities; implementation of HIV control interventions faces many difficulties, particularly in remote and isolated areas. Compliance with DOTS protocols among TB patients in remote and isolated areas is limited; drug-resistant malaria is at risk of spreading. Rabies remains one of the main causes of death from communicable diseases. Sensitivity of the epidemic surveillance and response system is not yet high; reporting of infectious disease from hospitals and private sector facilities is slow and inadequate. Funds from NTPs for communicable disease control have been cut, adversely affecting performance.

### 4A.2. Environmental health and food safety activities

***Implementation results:*** In 2014, 79% of the population used a sanitary toilet not shared with other households. The proportion of the population using clean drinking water reached 92%. Medical waste treatment has improved. Some 54/63 provinces have set up steering committees for prevention of accidents and injuries in the community; all 63 provinces are implementing monitoring and statistical reporting on accidents and injuries; 121 communes meet safe community standards. An action plan was developed and steering committee set up for the NTP on health sector response to climate change.

Food hygiene and safety steering committees have been established at all levels. Some 50 national technical standards have been issued on food safety, and an additional 35 national standards on testing methods have been developed. Some 34/63 provinces have been recognized as being in compliance with ISO 17025. Food safety checking and monitoring have been strengthening, the proportion of establishments with food safety violations has fallen from 21.2% in 2012 to 10% in 2014, the proportion of food samples not meeting standards has fallen from 28.8% to 10%; in the past 5 years, only 1 death has occurred in food poisoning incidents involving 30 or more individuals.

***Difficulties and shortcomings:*** There remain 18 provinces with sanitary toilet coverage below 50%, while about 10% of the nation's population lack a toilet. The system of legal documents on health environmental protection are inadequate for requirements. The capacity for managing waste, measuring the environment and controlling pollution in health facilities remains limited. The system of health environment surveillance has not yet been strengthened. Scattered food poisoning cases mainly occur in households, where controls are still ineffective. Violations on food supplement advertising are still common, but little attention has been paid to check and impose sanctions. The project to develop a rapid warning system and analyze risks to food safety have been approved but funds have not been provided so implementation is slow.

### 4A.3. Strengthen IEC, reduce lifestyle risk factors, care for health of groups with high need

***Implementation results:*** The Tobacco Control Law has come into effect. IEC, graphic warning labels on tobacco packs, advertising and sponsoring bans, and other measures have been implemented. National policy on control of the harmful effects of alcohol use to the year 2020 was issued. Many ministries and sectoral agencies have issued regulations banning alcohol use during administrative hours of government offices. Models for control of harmful alcohol use have been implemented in the community. The National Nutrition Strategy 2011 – 2020 and vision to 2030 was approved. The MOH issued "10 recommendations on appropriate nutrition to the year 2020" and implemented innovations

for appropriate nutrition. The Action plan for health IEC for the period 2011 – 2015 was issued, and the IEC network covers 100% of provinces and districts. School health has been strengthened. The proportion of school health workers who have received training, the proportion of schools with a pupil healthcare committee, health office, adequate drinking water, kitchen meeting food safety standards and organizing periodic health checkups with health management records for pupils have all increased.

***Difficulties and shortcomings:*** Smoking prevalence has fallen slowly, while per capita alcohol consumption and obesity rates have risen. Policies are not in place for effective intersectoral interventions to control risk factors, particularly encouraging physical fitness and discouraging salt consumption. There is a lack of guidance for systematic organization and implementation of IEC. Methods of IEC in the community are inappropriate, inflexible and ineffective. Sanitation in rural and mountainous areas do not yet meet requirements. Too few health workers with inadequate skills are assigned school health duties, and there is frequent turnover. Funds allocated for school health activities are insufficient and continue to be cut.

#### 4A.4. Prevention and control of NCDs

***Implementation results:*** NCD prevention and control was incorporated into NTPs for the period 2012 – 2015. By the end of 2014, all 63 provinces were implementing hypertension and diabetes projects, 37/63 provinces were implementing the cancer project and 25/63 were implementing the COPD and asthma projects. In four years, 600 000 cases of hypertension, 236 000 cases of pre-diabetes and diabetes, about 10 000 cases of COPD and asthma were detected and managed. Over 10% of communes implemented hypertension management. The national strategy for the prevention and control of NCDs for the period 2015 – 2025 was approved.

***Difficulties and shortcomings:*** The proportion of NCD cases detected, treated and managed in the community remains low. The system of service delivery does not yet meet requirements. Projects are implemented vertically with little integration and many units involved; long-term care lacks a comprehensive and continuous approach. Insufficient staff and inadequate training remain a problem. IEC is not yet effective. Information for NCD surveillance is inadequate, out-of-date and lacks standardization. Fund allocations for NCD prevention and control are not commensurate with the NCD share in disease burden. The NTP budget for NCD prevention and control has been cut.

### *4B. Delivery of medical, traditional medicine and rehabilitation services*

#### 4B.1. Consolidate development of the medical services network

***Implementation results:*** Total hospital beds continue to increase to achieve the target; by 2014, actual beds per 10 000 population reached 28.1, while planned beds reached 23.0 per 10 000. The number of private hospitals and clinics has increased rapidly. The grassroots healthcare system has also been strengthened with 99% of communes having a health station, 78% having a doctor, 98% having a midwife or obstetric-pediatric assistant doctor; 78% of villages have a village health worker; 80% of CHSs provide services reimbursed by health insurance; 55% of communes meet national health benchmarks for the period 2011 – 2020. Traditional medicine and rehabilitation have been strengthened with 61 traditional medicine hospitals; 90% of general hospitals having a traditional medicine department; 73.4% of communes providing traditional medical services and 83.9% having a medicinal herb garden; while for rehabilitation there are 63 rehabilitation hospitals/centers, 100% of provincial and central hospitals have rehabilitation wards, district hospitals have integrated

rehabilitation into their clinical departments, and almost all communes have staff assigned to rehabilitation.

***Difficulties and shortcomings:*** There is a shortage of specialists in oncology, cardiology and pediatrics at lower level hospitals in some regions and imbalance in allocation of professional capacity across regions and levels. The lack of linkages between facilities adversely affects continuity of care. The traditional medicine and rehabilitation service delivery networks have developed slowly, and still have limited capacity that has not brought into play their strengths. Results of implementing community-based rehabilitation are weak.

### 4B.2. Increase access to medical services

***Implementation results:*** 160 family medicine clinics have been set up, providing screening to 277 000 people, examinations for 491 052 patients and emergency care for 2930 patients. The healthcare system for the elderly is being put in place with 4 geriatrics specialist facilities; and geriatrics departments in hospitals of 46/63 provinces. More than 2 million elderly people have undergone routine medical checkups; more than 1.7 million elderly people have health monitoring records. A network of elderly care volunteers is providing community-based care of the elderly in 160 communes. In 2012, 39.2% of the population had contacts with healthcare providers.

***Difficulties and shortcomings:*** The new family medicine clinic model has only been piloted for a short time, and is being refined, so it has not yet been fully evaluated. Models of elderly health care have not yet been implemented uniformly and widely. Regional disparities in access to healthcare persist, with lowest access in the Northern midlands and mountains and among ethnic minority people.

### 4B.3. Medical services quality improvement

***Implementation results:*** Three centers for standardization and quality control in medical laboratories have been set up in Hanoi and in HCMC; 55.4% of hospitals nationwide have set up quality management offices/teams. The hospital quality assessment criteria are being used in 1233 hospitals. Medical examination procedures have improved; total waiting time has fallen to an average of 48.5 minutes per consultation. Competency standards for nurses, midwives and general practitioners have been developed. Hotlines have been strengthened and are contributing to improving medical service quality. Eleven training courses for nearly 1000 health workers on physician code of conduct have been implemented. Licensing of facilities and issuing practice certificates to practitioner are being implemented according to the Law on Examination and Treatment. Guidelines for nearly 4000 technical procedures in nearly all specialties were developed. For the first time, professional guidelines for the commune level were developed and issued.

***Difficulties and shortcomings:*** Medical service quality management systems remain weak: No external accreditation agency has been set up yet; more than 44% of hospitals still don't have quality management offices or teams. Professional quality has not been assessed or managed tightly. The situation of non-recognition of laboratory test results between medical facilities persists. There is no linkage between quality and service prices, there are no financial or non-financial incentives to improve service quality. Quality of medical practitioners remains limited and there is no effective mechanism in place to motivate improvement in professional competencies and continuous professional development. The feedback system on service quality is incomplete.

### 4B.4. Reduce hospital overcrowding

***Implementation results:*** Service provision capacity at provincial and district hospitals has been improved through technology transfer in various projects. The satellite hospital project has transferred techniques to 1701 health workers in 46 hospitals. The referral rate of satellite hospitals has fallen 37.5%. The project to rotate medical staff from higher level facilities to lower level facilities has implemented 13 000 technology transfers to lower level facilities. As a result, 58% of central hospitals, 47% of provincial hospitals have reduced the number of hospital wards with patients doubling up in beds and 25% of district hospitals have increased bed occupancy rates from 40% to 60 – 70%.

***Difficulties and shortcomings:*** The satellite hospital project has only been implemented in 37 provinces. Some measures proposed in the project to reduce hospital overcrowding have not yet received adequate attention.

### 4B.5. Strengthening hospital management

***Implementation results:*** The Center for Medical Services Management Capacity Development and the Health Management Training Institute have been set up. Management training requirements for hospital managers has been included in the criteria for evaluating hospital quality. Training of managers has received attention and been strengthened.

***Difficulties and shortcomings:*** The public hospital management mechanism has many shortcomings and requires substantial reforms. Care should be taken in implementing the public private partnership mechanism combined with social mobilization to avoid adverse effects on efficiency and equity.

## *4C. Population-family planning (FP) and reproductive health services*

### 4C.1. Complete the system of policies and legal documents

***Implementation results:*** Many policies and legal documents on population, family planning and reproductive health have been issued. NTPs on population-FP and reproductive health and improvement of child malnutrition are being maintained.

***Difficulties and shortcomings:*** Some MDG indicators are not yet included in any health sector plans. Some other indicators are unfeasible. Development and issuing of the national strategy and the action plan on nutrition were delayed and are not meeting their potential. Stipends to motivate village birth attendants are funded by local budget, which is particularly difficult to mobilize in mountainous areas, which are currently achieving only 44% coverage.

### 4C.2. Strengthen the network, invest in infrastructure, equipment, training to improve accessibility to population and reproductive health services

***Implementation results:*** Almost all provincial and district health facilities have adequate conditions to implement family planning and reproductive health services. About 98% of CHS have midwives or assistant doctors able to provide contraceptive technical services. Almost all important reproductive health services have expanded coverage to district and commune levels. Service quality has improved. Effective maternal and child health (MCH) services are being implemented nationwide. Curricula and training materials on population-FP and reproductive health have been developed and issued. 1575 out of 1737 trained village birth attendants currently serve communities. Thousands of health workers have upgraded their knowledge and practical skills. Many medical advances are being applied. The Survey of Population Change and MICS are implemented regularly.

***Difficulties and shortcomings:*** The public population-FP and reproductive health service delivery network has limitations in resources and capacity. The public sector has only 0.36 obstetricians and 0.25 pediatrics per 10 000 in the population. Some 21.3% of district hospitals don't have an obstetrician, while only 42.9% of hospitals have a pediatrician. Some 2500 villages in disadvantaged areas are not yet served by a village birth attendant. The ability to provide services like C-section and blood transfusion, in 225 disadvantaged districts is still limited. A low proportion of staff working in population-FP and reproductive health have appropriate training. NTP funds have been cut, reducing implementation of some priority activities. Inadequate funds are available to implement surveys and research on population-FP and reproductive health.

### 4C.3. Effectively implement the NTP on population and FP

***Implementation results:*** Population and family planning services have been brought close to the people and are improving in quality. Contraceptives are being provided for free to meet demand in some areas, while social marketing of contraceptives is being intensified. Four regional antenatal and neonatal screening centers have been built; technology is being transferred to provinces and districts. Premarital counselling and health checkups for young couples are being implemented in 1464 communes in 58 provinces. Interventions to reduce early marriage and consanguineous marriage are being implemented in 192 high risk communes. IEC and BCC are being strengthened. To implement regulations prohibiting fetal sex selection facilities are being inspected, checked and monitored. Many important population indicators indicate the 2015 targets have been met including size of the population, population growth rate, and maintaining fertility below replacement levels.

***Difficulties and shortcomings:*** Funding for population and FP activities has been abruptly reduced. The unmet need for modern contraception is estimated at 35% among adolescents and youth. Regulations or sanctions related to contraceptive quality are not currently in place. Modern contraceptive prevalence rates are low. Contents and forms of IEC are not appropriate for all regions. Fertility rates appear to be increasing, particularly in the poorest regions. Expansion of the congenital disorders screening programs is not yet possible. Early marriage and consanguineous marriage are still common in some areas. The proportion of the population with physical or mental disabilities accounts for 1.5%. The overall sex ratio at birth remains high and the number of areas with high sex ratios is expanding. Some targets have not been met including the target for TFR and for decline in fertility.

### 4C.4. Ensure reproductive health targets are met

***Implementation results:*** IMR has continued to decline from 15,8‰ (2010) to 14,7‰ (2015). Vietnam is also on target to reduce MMR to 58,3/100 000 live births by 2015. Indicators of antenatal care, delivery care, postnatal/postpartum care and child nutrition all indicate achievement of the 2015 targets. Every year about 13 million reproductive age women are screened for reproductive tract infections (RTI); there has been a slight decline in the share of cases requiring treatment from 43.4% in 2010 to 41.4% in 2014.

***Difficulties and shortcomings:*** The pace of reductions in MMR and child mortality is slowing, and it is unlikely that the goal of reducing U5MR to 19.3‰ will be achieved by 2015. Neonatal mortality still accounts for a high share of child deaths. Inadequate attention is paid to simple, effective and inexpensive interventions such as breastfeeding and early essential newborn care. Traffic accidents and drowning account for a relative high share of deaths to children, requiring interventions from outside the health sector. Ensuring universal access to reproductive and maternal and child health services in disadvantaged areas is difficult to achieve. Quality of antenatal care is limited, only 56.2%

of pregnant women have received 3 basic interventions of blood pressure measurement, blood test and urine test. Regional disparities in maternal and child mortality have not declined. Child stunting rates are very high; child malnutrition rates (underweight) remain high in mountainous areas. Overweight and obesity are increasing in urban areas. Quality of RTI screening is very limited, and not yet reliable.

## 5. Health information systems (HIS)

### 5.1. Refining the legal basis for health information and statistical indicators

***Implementation results:*** A Comprehensive HIS Development Plan 2014 – 2020 and Vision to 2030 was issued. The system of indicators, registers and statistical reports was revised including 88 basic health indicators in various fields, many of which are disaggregated by gender, region, ethnicity and by provincial, district and commune levels. The health statistics indicator dictionary was issued to guide technical aspects. Various documents for indicator systems in sub-sectors like traditional medicine, HIV/AIDS and preventive medicine were also issued.

***Difficulties and shortcomings:*** Standardization of information sub-systems remains inconsistent. Implementation of regulations remain weak, particularly regarding compliance by the private sector since sanctions are not strictly applied. There is a lack of detailed guiding documents for implementing new legal documents in statistics.

### 5.2. Satisfying needs of data users

***Implementation results:*** Many health statistics information products are published annually like the Health Statistics Yearbook and the JAHR. Health information collection was strengthened through the system of registers, routine reports, and surveys. Statistical data are being used in management, planning and policy formulation at the central level. Quality of data has gradually improved. An information system for surveillance of health sector priorities, including NCD and risk factor monitoring is being implemented, along with activities to measure disease burden. Information on death and cause of death in the community are being integrated into the HIS.

***Difficulties and shortcomings:*** There is no clear mechanism for information dissemination, nor an official unit charged with disseminating health sector data. Little of the raw data available has been analyzed or used for forecasting trends and estimating disease burden. Quality of data is still limited, unreliable, inaccurate and delayed, so health system information needs remain unmet.

### 5.3. Modernizing the HIS and application of information technology (IT)

***Implementation results:*** The MOH and units under its administration, provincial health departments and hospitals have local area networks (LAN) and are connected to high speed internet. A center for data integration was established to meet basic requirements for a server to apply IT. Software for management of documents and administration in a network environment is being applied. All government staff of the MOH and provincial health department have e-mail accounts for official business. The MOH and some provincial health departments are using IT to provide some public services. Some departments and administrations of the MOH have developed data bases and management software for their fields. Hospital information system software for hospital management is being applied; 100% of central hospitals, 68% of provincial hospitals and 61% of district hospitals have applied information systems for hospital management. The system for electronic medical records exchange is being built. Some telemedicine systems have been set up and linked with hospitals, and are operating effectively at Bach Mai and Viet Duc hospitals.

***Difficulties and shortcomings:*** Application of IT remains fragile, with only a few information systems in specific sub-sectors. Systems that have been developed lack interoperability, limiting application of IT in gathering, processing, analyzing and disseminating information. The necessary foundation for applying IT effectively, e.g. common lists, architecture, overall HIS design and integrated databases are missing.

## 6. Governance

### 6.1. Policy formulation

***Implementation results:*** Many important strategies were issued to orient health sector activities in 2011 – 2020 and with a vision to 2030. The master plan for health system development and many specialized master plans were developed. The MOH actively engaged in developing Laws and sub-legal documents and developing guiding circulars to implement legislation. Some 1159 legal documents on health exist in the legal system, of which 768 are still in effect.

***Difficulties and shortcomings:*** *Quality of health master planning has many shortcomings. There are many master plans, but they have low feasibility.* Too many levels participate in master plan development, without any unified process, and without clear ways of checking or evaluating implementation. Proposals for policy development are generally subjective, without a prioritization process. The pace of developing guiding circulars is slow, in 2014 achieving only 44% of the target. The process of developing legal documents suffers from inadequate information and scientific evidence on socio-economic impact, cost-effectiveness analysis, health technology assessment. The organization of policy and strategy implementation is limited. Policy dissemination is superficial leading to low effectiveness.

### 6.2. Strengthen the role and capacity for health sector management and planning

***Implementation results:*** Two units have been set up for training health sector managers, in Hanoi and HCMC; many training courses were organized to strengthen capacity for management, planning and budgeting for the health sector for provincial and central managers. Reforms of planning and budgeting in the health sector have been undertaken. A planning framework and guidance for provincial health sector planning has been approved. Since 2010, the MOH has implemented the Joint assessment of national strategies (JANS) to assess the 5-year plan. The JANS instrument was updated, revised and is gradually being applied to evaluate annual provincial health sector plans in some localities.

***Difficulties and shortcomings:*** *Reforms in planning and budgeting are still weak.* Planning and budget allocation following priorities are not linked, budgeting is still primarily based on input indicators such as human resources, or on population. Health sector information and data to serve planning purposes lack timeliness, accuracy and reliability, causing difficulties for evidence-based planning and management.

### 6.3. Consolidate, complete and stabilize health sector organization

***Implementation results:*** *The organization of the Ministry of Health has been adjusted to meet management requirements:* The Information Technology Administration and Communication and Emulation Department were set up at the MOH; changes were made in the organization model for several departments and administrations such as the Traditional Medicine Administration and Department of Technology and Training. Regulations related to local health sector organization have also been issued including Decree 117/2014/ND-CP on commune health and a circular guiding the functions, tasks authority and structure

of the provincial preventive medicine centers. The operational and financial mechanisms for government service delivery units was reformed according to Decrees 43/2005/ND-CP, 85/2012/ND-CP and 16/2015/ND-CP.

***Difficulties and shortcomings:*** The organization of the health system still does not meet requirements. Medical facilities are organized by administrative unit, which doesn't allow for adequate scale to develop specialties and leads to imbalances, fragmentation and discontinuities in service delivery. Preventive medicine facilities are fragmented into many different agencies leading to diluted resources and difficulties in integrating activities and sharing information. The grassroots healthcare network has been unstable in its organization, human resources and service delivery capacity, unable or slow to respond to changes in morbidity patterns and healthcare needs.

### 6.4. Strengthen inspections, checking, supervision; consolidate and develop the health inspection network at all levels

***Implementation results:*** *The legal basis and organization of health inspection have undergone changes.* The MOH and local health departments have organized specialized inspections, leading to adjustments in performance management. The MOH has issued criteria and instruments to strengthen quality of checking and supervision of healthcare facilities and has also made efforts to strengthen checking on health service quality and maintained and promoted hotlines.

***Difficulties and shortcomings:*** *The staffing of the health inspectorate is inadequate, each province only has a handful of inspectors, while the district level doesn't have any inspection functions.* Current inspection and checking is generally passive, occurring only after incidents have occurred. Monitoring of health sector activities has received inadequate attention due to the lack of funds, human resources and a huge volume of work. Inadequate attention has been paid to the potential checking and monitoring role of the Party and local authorities, social and professional organizations.

### 6.5. Strengthen participation of stakeholders in health policy formulation, planning and implementation

***Implementation results:*** *The MOH has organized widespread gathering of comments on draft policy documents* being developed by the Ministry through various forms. Renewed attention to policy advocacy and communication has been evident in conferences, seminars, press conferences and explanations of changes in policies to achieve consensus among society. Dialogue with international organizations and donors continues to be maintained through bilateral and multilateral contacts, maintenance of quarterly HPG meetings and development of the JAHR every year since 2007.

***Difficulties and shortcomings:*** *Participation of various ministries, sectoral agencies, social organizations in policy formulation remains weak, with few useful comments being received.* Explanations, feedback of policy formulating agencies in response to comments by the people and enterprises remains unclear and general, which complicates policy implementation.

### 6.6. Promote appropriate social mobilization, private sector and public private partnership development in health care

***Implementation results:*** In recent years, the health sector has mobilized many extra-budgetary resources through joint ventures and partnerships to invest in infrastructure and new technologies, contributing to improving quality of medical services, and increasing incomes of health workers. Social mobilization in health has begun to meet increasingly

diverse health care needs of different population groups, particularly of groups who can afford to pay. Private investments contribute to meeting urgent healthcare needs of the population and create competitive pressure on the public sector to improve its quality. Public private partnerships are being encouraged through Decree 15/2015/ND-CO and Resolution 93/ND-CP.

***Difficulties and shortcomings:*** Management of social mobilization has seen many shortcomings, particularly with overprovision of high tech services financed through social mobilization due to the lack of regular monitoring and checking by state management agencies. The inadequate checking and monitoring of private health sector activities is due to the shortage of human resources for its implementation. Private facilities have low compliance with regulations on information reporting. Public private partnerships are facing many difficulties as this is a new area and pilot implementation is required.

### 6.7. Administrative reforms

***Implementation results:*** The MOH issued Decision 436/QD-BYT on administrative reform plans for 2014 in 8 areas. It has simplified 221/225 administrative procedures; made available to the public all 362 administrative procedures in its jurisdiction; implemented the project for "development of methods for measuring satisfaction of the people with public healthcare services" in 5 hospitals of 4 provinces. After one year of implementation, Decision No. 1313/2013/QD-BYT has reduced the medical examination process from 1214 steps to only 48 steps.

***Difficulties and shortcomings:*** Some units have not yet paid attention to controlling administrative procedures, leading to slow implementation and low performance. Regulatory impact assessment is not yet strictly implemented during drafting of legal documents. Open posting of administrative procedures remains slow.

## PART TWO: STRENGTHENING GRASSROOTS HEALTHCARE TOWARDS UHC

**The purpose** of the topical report in this year's JAHR is to recommend goals and solutions aimed at reforming and improving effectiveness of grassroots healthcare network performance, with an orientation towards universal health care (UHC) based on a situation assessment, analysis and selection of the optimal model for service delivery by the grassroots healthcare network.

### Chapter III. Grassroots healthcare and primary health care in Vietnam

***"The Grassroots healthcare network"*** concept used in this report includes villages, communes and districts. It is a system of healthcare organizations and institutions within a district, with close linkages between health facilities at the commune and district levels for implementing healthcare based on principles and values of primary health care (PHC). This concept is similar to the concept of ***"district health system"*** that is used in many countries.

### 1. Framework for developing the grassroots healthcare network and PHC in Vietnam

*Strengthening the grassroots healthcare network and strengthening PHC have always been prioritized in Vietnam's health development policy.* The VI$^{th}$ Communist Party Congress (1986) demanded "active measures and appropriate policies to rapidly strengthen the healthcare network, particularly at the district and grassroots levels." Resolution No. 04-NQ/HNTW emphasized strengthening of the grassroots healthcare network as an urgent

task. The Government issued policies regulating the local health system organization to deliver quality healthcare services closer to the people. The Strategy for the Care and Protection of the People's Health 2001 – 2010 set the target by 2010 of 80% of CHS having a doctor. Central Party Secretariat Directive 06-CT/TW in 2002 emphasized the responsibility of all levels of the Party, local authorities, sectors, and mass organizations in strengthening the organization and reforming the operations, improving quality and effectiveness of the grassroots health network.

The XI$^{th}$ Party Congress (2011) set out the following tasks: Overcome hospital overcrowding, particularly central and provincial hospitals; refine the organizational model and consolidate the grassroots healthcare network. Strengthen capacity of the CHS, complete district hospital construction. National Assembly Resolution 68/2013/QH13 stipulated that by 2020, investments in CHS in socio-economically disadvantaged areas should be completed. The National Strategy for Protection, Care and Promotion of the People's Health 2011 – 2020 and Vision to 2030 set out the task of consolidating and refining the grassroots healthcare network, reforming PHC; ensuring that 100% of communes have a CHS; harmoniously combining activities between healthcare units within the district. Conclusion 126-TB/TW dated 1 April 2013 of the Secretariat stipulated the refinement of the functions, tasks, organizational model and management mechanism for grassroots health care; supplementing, adjusting and issuing policies appropriate for the new requirements, ensuring stability, effective use of resources, encouraging health workers to work at the grassroots level.

## 2. Organization and performance of the grassroots healthcare network

### 2.1. Achievements and progress

***Vietnam has an extensive healthcare network*** with a CHS in 99% of communes. Some 78% of CHS have a doctor, 98% have a midwife or pediatric/obstetric assistant doctor, while 95% of villages are served by a village health worker (VHW). Almost all provinces have set up district health centers, with 460 serving the single function of preventive medicine and 233 serving both preventive and curative care functions. Some 668/693 districts (62 provinces) have population and FP centers.

***Grassroots healthcare network facilities, human resources and financing have improved.*** By 2014, 598 district hospitals and 103 regional polyclinics had received investments in new construction, renovations or upgrading. Many CHS have received investments for upgrading or new buildings from local budgets or external assistance.

In the 10-year period 2000 – 2010, HRH have grown 44% at the district level and 11% at the commune level. The number of health workers with high professional qualifications at these levels has grown by 40%. a pilot project sending young doctors to work in disadvantaged areas (in 62 poorest districts) is being implemented. Many policies have been implemented to attract health workers to the grassroots healthcare network.

Health insurance coverage has reached 75.3%. The poor and near poor account for 26% of all the people with health insurance, and receive state budget subsidies for their premiums. Many projects supporting disadvantaged regions and poor people are being implemented using ODA or NGO funding.

***Grassroots healthcare network service delivery has expanded.*** Preventive medicine and NTPs have been implemented and achieved promising results: dangerous communicable diseases have been effectively controlled, major epidemics prevented; NCDs, occupational disease, accidents/injuries and school health problems have been prevented or managed. NCD prevention and control programs have begun to be implemented at the commune

level. FP services are being implemented, and essential maternal and neonatal care services are being standardized. National commune health standards for 2001 – 2010 were replaced by the National commune health benchmarks for the period 2011 – 2020.

### 2.2. Difficulties, challenges

***Organization of the Vietnamese grassroots healthcare network is not yet stable.*** Over 10 years, regulations on the organization of the district health system have changed 3 times, creating disruption in organization, human resources and ability of the grassroots healthcare network to deliver healthcare services throughout the country.

***Service delivery capacity is limited while service quality is unregulated.*** CHSs can only implement about 52.2% of service items in the classification of all services by level of provider. Capacity to prevent illness, manage and care for health based in the community remains weak. Performance of CHS remains low while guidance monitoring and checking remain limited.

***Imbalance between higher and lower level facilities.*** Higher level hospitals are generally overcrowded; 54 to 65% of those cases could have been treated at lower levels. The proportion of insured patients seeking care at commune and district levels is 72%, while the share of health insurance reimbursements at these levels is only 32%. Some 72.6% of the population lives in rural areas, but only 41% of doctor and 18% of pharmacists serve these areas.

***There are inadequate linkages and collaboration between preventive and curative care,*** between levels of care, and between healthcare facilities to ensure PHC service delivery is comprehensive, continuous and effective. There is no mechanism for integrating health NTPs. Information linkages between different levels and facilities are inadequate.

***Policies for strengthening grassroots healthcare and PHC have not been fully implemented.*** In the past 10 years there has been almost no uniform investment in CHSs. Investment resources for the CHS have come mainly from local budgets or funds mobilized by the MOH from external assistance. Regulations on revenues and expenditures and recurrent expenditures of CHS are no longer appropriate.

***The financial mechanism for the grassroots healthcare network is inappropriate.*** Funding for PHC and other healthcare services has been fragmented and there remain gaps. The provider payment mechanism does not encourage productivity or effectiveness (both payments from health insurance and the state budget).

***Pharmaceuticals and medical equipment for grassroots health services do not meet needs.*** Many CHS lack pharmaceuticals for providing treatments according to lists of what should be available at the CHS, and lack equipment or have to rely on old, broken, unusable equipment so they cannot meet healthcare needs.

At the same time, the health system is facing many challenges, such as population aging, industrialization, urbanization, epidemiological transition with an increase in NCDs and difficult to predict changes in emerging diseases.

## 3. Priority issues

- ***Commune and district level capacity for implementing PHC and medical services face many limitations.*** The main reasons are that investments in physical infrastructure, equipment, staffing norms and mix at the CHS and district health centers have not been coherent, or appropriate to meet professional requirements or the needs for healthcare of the population; funding for regular CHS activities has not been assured.

- ***Performance of the grassroots healthcare network remains low,*** due to ineffective integration, comprehensiveness and continuity of care. The main reasons are the organization, functions and tasks of district and commune level health facilities have been unstable and inappropriate, lacking linkages and collaboration between levels and between curative and preventive healthcare services; Integrated care and patient-centered care approaches have not been fully applied; the financing and provider payments mechanisms (from health insurance fund) have not yet incentivized provision and use of grassroots level health services.
- ***Management and direction of activities of the grassroots healthcare network and PHC have many limitations.*** The main reasons are the lack of general orientation and strong, consistent measures for strengthening the grassroots healthcare network to reform service delivery that places PHC at the foundation; professional guidance, planning, monitoring and evaluation of performance of the grassroots healthcare network has many shortcomings; the information system is very weak and lacks linkages across levels; the roles of different levels of local authorities has received inadequate attention, intersectoral cooperation in health care at the grassroots level has been weakened and become ineffective.

## Chapter IV. Determining a grassroots healthcare service delivery model

The JAHR has determined that the appropriate grassroots healthcare model is a ***"PHC-based model of service delivery."***

### 1. Basic features of PHC-based service delivery

- ***People-centered service delivery:*** Focus on meeting needs and expectations of individuals, families and the community, oriented towards forming healthy communities, not simply care and treatment of disease. The people need knowledge and support to be able to participate and take care of their own health. Health care must be linked with improving welfare, reducing poverty and developing safe communities.
- ***Equity in access to services:*** Ensure availability, accessibility, affordability and financial protection in accessing grassroots level healthcare services.
- ***Comprehensive service delivery, prioritizing prevention and control of NCDs:*** Provision of prevention, treatment, rehabilitation, palliative care and health promotion; paying attention to interactions between biological, behavioral and psycho-social factors. Effectively coping with growing trend in NCDs and unpredictable developments in emerging disease.
- ***Integrated, continuous care:*** Ensuring that the people receive continuous healthcare services at different levels of facilities and care levels throughout the life cycle. Ensuring continuity of information related to health care, and continuity in management of health problems.
- ***Ensuring service quality:*** Ensuring inputs for healthcare services, including human resources, physical infrastructure, equipment and pharmaceuticals; professional guidelines, quality management.
- ***Community involvement and intersectoral cooperation:*** Active participation of families, the community, local authorities, sectors, mass organizations in determining health priorities and activities that promote health.
- ***Effective management, professional guidance and supervision of the healthcare service delivery network:*** Stable policies and legal framework in place, appropriate

organization of health sector structure, guidance and supervision on professional activities for effective performance.

### 2. Grassroots healthcare network organizational model

- T***he grassroots healthcare network must be a system*** with coherent linkages between facilities within the district and those at higher levels, to supply services that involve cooperation between primary and higher levels and linkages with other sectors.
- T***he functions and tasks of district and commune level facilities*** include collaboration and work under the guidance and instructions of higher level organizations to provide comprehensive and continuous health services. Pay special attention to active care in the community. Ensure HRH are well trained and have adequate experience and skills to work in PHC through teamwork approaches.
- ***Ensure adequate financial resources for grassroots healthcare network*** activities with a provider payment mechanism to encourage provision of appropriate PHC services, including special attention to prevention and health promotion.

### 3. Conditions to implement the PHC-based service delivery model

***General conditions*** for overcoming the existing challenges from: (i) *systems aspects,* related to shortcomings in the policy system and management methods; (ii) *human resources aspects,* to counter trends towards greater specialization, and (iii) *organizational aspects,* due to lack of collaboration between stakeholders to implement the common goal of improving welfare and health of the people.

Concrete conditions include:

- Improve awareness and capacity for leadership and management for implementing service delivery approaches that place PHC at the foundation and that are people-centered.
- Strengthen management functions and accountability, consolidate the policy system towards supporting implementation of integrated people-centered service delivery.
- Ensure balance between PHC and hospital-based specialist care; encourage delivery of PHC, prevention, and health promotion services and community based care; pay attention to outpatient care and effective referrals.
- Deliver services based on needs of the population at different levels, implement continuous care, create effective linkages between the health sector and other sectors.
- Create an environment for changing the service delivery model that puts people at the center, is founded on PHC, including changes in policies, financial mechanism and resource allocations, based on high level political commitment, involvement of all related stakeholders and capacity for leadership and management at all levels.

## Chapter V: Priority issues and recommended solutions

### 1. Health and determinants

#### 1.1. Health priorities

***Growth in NCD disease burden,*** particularly hypertension, cancer, diabetes, COPD and asthma. Understanding about these diseases is limited, investments are not in line with disease burden and health system capacity to respond is weak.

***Communicable disease continues to prove a challenge,*** particularly HIV/AIDS, TB, malaria, dengue fever, hand-foot-mouth disease, vaccine preventable diseases and newly

emerging diseases. Control of these diseases is becoming more complicated because of the weak disease surveillance systems, drug resistance, high treatment costs, climate change, globalization and unpredictability of emerging diseases.

***Increase in effects of risk factors on health*** such as population aging, climate change and problems related to urbanization, industrialization and globalization, growth in environmental pollution, social vices and lifestyle behaviors that adversely affect health.

***Disparities*** across regions and socio-economic groups in health status, disease burden and ability to access healthcare services have not been reduced.

### 1.2. Orientation for solutions

- Implement strategies for comprehensive access including management and prevention of risk factors, screening for early detection of disease in the community for NCDs and intervention measures appropriate for each locality.
- Reform grassroots organizational models and PHC service delivery following an orientation towards comprehensiveness, continuity, strengthened linkages between treatment and prevention and between the grassroots and higher level facilities.
- Continue to strengthen coherent and sustainable grassroots level investments in physical facilities and human resources, particularly in disadvantaged regions.
- Strengthen surveillance systems for epidemics, ensure preparedness in terms of equipment and human resources to actively respond and control outbreaks. continue to implement effectively the EPI.
- Strengthen capacity of the health sector and intersectoral collaboration for control of climate change, master planning for industrial production, evaluating and monitoring effects of pollution due to industrialization and urbanization.
- Begin to implement sustainable development goals, paying special attention to mothers, children and the elderly. Study the mechanism and roadmap appropriate for integrating health NTPs into the routine PHC activities of the grassroots level.

## 2. Human resources for health (HRH)

### 2.1. Priorities

***HRH plans are not evidence-based,*** and are not suitable for ensuring balance between demands of the health system and outputs of training establishments. Information that is needed is not available for effective planning and policy formulation.

***Human resources quality is limited due to training that does not meet requirements:*** Competency based training and quality assurance of training are not yet effective because of limitations in guidance, monitoring, supervision and evaluation. Training curricula are not yet in line with international standards, in terms of approach, method and training contents.

***Geographic distribution of HRH is inappropriate; recruitment and deployment of human resources face many shortcomings:*** there are difficulties in recruiting HRH of good quality; disparities in number and quality of human resources across geographic areas, and between curative and preventive care, across specialties and over levels of the system persist. The main reason is that the remuneration is inappropriate, particularly for preventive medicine staff, especially in rural and mountainous areas.

### 2.2. Recommendations

***Measures related to HRH planning:*** Propose specific and appropriate goals and tasks for HRH for the upcoming 5-year plan. Ensure the gathering of monitoring and evaluation data. Develop technical and competency standards needed for each type of health occupation according to the Project on work positions and apply these to improve training quality.

***Measures related to human resources quality:*** Complete the system of policies on standards, benchmarks, concrete conditions for student recruitment and HRH training. Implement quality accreditation for training curricula in the health sciences, put in place standards for training based on required competencies and guided clinical practice in hospitals. Strengthen accreditation, supervision, evaluation of CME. Revise the Law on Examination and Treatment, implement regulations on time-limited medical practice certification and require participation in CME. Put in place a roadmap for organizing medical practice certification exams to ensure uniformity in basic competencies. Strengthen capacity of health statisticians, managers, planners, inspectors, drug quality control at all levels.

***Reduce regional disparities in quality and number of health workers:*** Complete policies and ensure compliance with regulations on recruitment, deployment, and enforcement of remuneration policies. Develop CME training plans and career development plans for health staff, with policies to encourage and make mandatory the participation of grassroots health workers in CME, strengthening CME in the workplace. Provinces with shortages of human resources must actively develop policies, remuneration policies, and priorities for recruitment of health workers that are appropriate with the requirements and specific conditions of localities.

## 3. Health financing

### 3.1. Priorities

***Health financing policies lack consistency and coherence leading to low policy effectiveness:*** Inadequate information and strategic objectives for health financing to orient development, monitoring and evaluation of health financing policy implementation. Some health financing policies and plans are inconsistent and lack flexibility, but have not yet been adjusted to respond to the problems that have arisen. Some priorities of the health system have not been allocated adequate funding like health statistics, accreditation, external quality assurance and ensuring training quality.

***Effectiveness in financial resource use has been limited*** due to the lack of appropriate incentives, slow reforms of health insurance provider payment mechanisms; non-evidence-based development and implementation of policies (diagnosis and treatment guidelines, health insurance package definition); lack of necessary conditions for implementation of the strategic purchasing function aimed at ensuring effectiveness in health insurance fund payments.

***Financial protection from health insurance remains low*** because of inefficiencies in health service delivery, leading to high OOP payments from insured patients. The OOP share of total health expenditure has not declined, while impoverishment due to health spending remains high. Progress towards the health insurance coverage rate target has been slow; enforcement measures to ensure compulsory coverage of the remaining uninsured individuals are difficult to implement. Depth of health insurance coverage is inadequate because the scope of the health insurance package has not been evaluated in relation to the needs of the people.

### 3.2. Recommendations

***Development of a health financing strategy:*** Develop a comprehensive health financing strategy that clearly states the goals and criteria to be met as well as coherent and effective measures to achieve those goals. Develop an appropriate plan for use as well as monitoring and evaluation of the utilization of financial resources. Advocate for continued increases in tobacco excise tax rates. Strengthen health financing policies and appropriate investments to improve quality and reduce disparities in health service quality at the commune and district levels.

***Improve effectiveness in use of health financing resources:*** Review and apply evidence-based evaluation methods when choosing drugs, medical consumables and technical services in the list covered by health insurance; implement HTA for new technologies and assess health care needs. Make transparent to the population what is covered in the health insurance benefit package, including PHC; reduce disparities in revenues across facilities. Strengthen monitoring and surveillance of costs and health insurance reimbursements; strengthen effectiveness in the mechanisms for inspections, checking and imposition of penalties. Adjust provider payment mechanisms appropriate for the transition period. Develop standards for services, particularly for expensive drugs and services. Control and effectively overcome adverse effects of hospital autonomy. Develop monitoring and evaluation indicators for performance efficiency of public hospitals to go along with strengthening hospital information management systems. Develop and issue national standard treatment guidelines.

***Improve health financial protection levels:*** Increase health insurance coverage through increasing the premium subsidy for the near poor, increase political pressure so localities achieve the goals of increasing health insurance coverage. Implement health insurance according to households following a clear roadmap. Strengthen the information database systems, speed up use of individual ID numbers, especially the national personal ID.

## 4. Pharmaceuticals, vaccines, infrastructure and medical equipment

### *4A. Pharmaceuticals, vaccines and biologicals*

#### 4A.1. Priorities

***Impediments to availability, affordability and accessibility to essential drugs:*** Domestically produced drugs do not yet fully meet the health care needs of the people. Disparities in availability and accessibility to essential drugs between different levels of the health system, particularly in remote and isolated areas persist. Prices of some drugs remain high, hindering access to the people.

***Rational and safe use of drugs is not yet assured:*** Inappropriate essential drug use occurs at all levels of the health system. The mechanism for controlling and coordinating development of drug lists and monitoring drug use remains weak. The risk of microbial resistance is rising because physicians prescribe more than necessary. Health facilities lack capacity and mechanisms to report and manage ADRs and errors in drug use.

***Quality management for modern pharmaceuticals, traditional medicine, biologicals and blood transfusions is not consistent:*** Resources for drug quality assurance remains limited. Control over sources and quality of herbal medicine ingredients is not yet effective. Regulations on quality and safety of blood products and blood transfusions are limited; no hemovigilance system has been set up.

### 4A.2. Recommendations

***Reduce impediments to availability, accessibility and use of essential drugs:*** Develop a roadmap for domestic drug manufacturing, with priority on healthcare needs of the population, particularly for NCDs. Collaborate to promote technology transfer for development and production of essential drugs for the health of the people. Strengthen the drug quality management system. Implement regular surveys on quality of a basket of essential drugs and disseminate the results widely. Continue the campaign encouraging Vietnamese people to prioritize use of Vietnamese medicines. Establish a central procurement system and centralized competitive tendering; develop a mechanism to supply essential drugs to remote and isolated regions. Implement regular drug price surveys and disseminate results, including the minimum and maximum prices found. Refine the mechanism and clearly assign managerial authority for controlling drug prices in the revised Pharmaceutical Law. Implement the national generic drug policy.

***Promote safe and rational use of drugs:*** Implement evidence-based selection of essential drugs through a national drug and therapy committee. Institutionalize surveillance over use and prices of drugs reimbursed by VSS. Establish a health technology assessment mechanism for essential drugs. Develop training materials and curriculum on clinical pharmacy, promote clinical pharmacy activities in hospitals. Develop a drug information system and ADR monitoring, invest in upgrading two national ADR centers in Hanoi and HCMC. Develop guidelines for good drug prescription practice. Revise and supplement regulations and strengthen implementation of regulations on good pharmacy practice. Complete regulations on pharmacovigilance, drug information and advertising.

***Manage quality of modern and traditional medicines and blood transfusion services:*** Strengthen capacity of pharmaceutical inspections at the central and local levels. Develop a roadmap for developing institutions and preparing to join the Pharmaceutical Inspection Convention Scheme (PIC/s). Develop a list of generic drugs and compulsory roadmap for achieving bioequivalence and bioavailability standards; develop three new laboratories in three regions and five regional drug quality assurance centers. Invest, upgrade and modernize centers for assessing bioequivalence and bioavailability of drugs in Hanoi and HCMC and the national vaccine quality assurance institute. Reorganize the blood transfusion service system.

## *4B. Medical infrastructure and equipment*

### 4B.1. Priorities

***Limitations in planning and control over investments in medical infrastructure and equipment:*** Master plans for construction and medical equipment are fragmented and out of date. Private sector facilities and equipment are not adequately considered in health sector master plans, while private sector investments rarely comply with master plans.

***Quality assurance, calibration and standardization of medical equipment at medical facilities are inadequate.*** Calibration and external quality assurance processes are not regularly implemented at many healthcare facilities. There are inadequate evidence-based standards or mechanisms for deciding on appropriateness of investments and use of medical equipment and technologies. Quality of medical equipment produced domestically is inadequate to meet requirements within the country or for export.

### 4B.2. Recommendations

***Develop a master plan and provide funding to invest in infrastructure and medical equipment according to evidence-based investment plans:*** Develop a geographic database

on disease patterns and capacity of facilities to respond, including medical equipment to aid in planning. Develop a master plan for infrastructure and equipment appropriate with needs, particularly for obstetrics, pediatrics, NCD management. Arrange a financing mechanism appropriate for implementing effectively the investment plans for infrastructure and equipment, which is built on an evidence base and considers both initial and maintenance costs, while taking into account the existing and planned private sector investments, paying special attention to the needs of the district and commune levels, particularly in poor areas and maritime areas.

***Strengthen methods to ensure quality and safety in use of medical equipment:*** Establish and strengthen capacity of the network of calibration and quality assurance centers. Issue regulations requiring compulsory external quality assurance and calibration of medical equipment for types of equipment that directly affect patient lives, but lack compulsory checking. Develop technical standards on physical infrastructure and medical equipment for maritime and mountainous areas.

***Reform forms of investment and organization of domestic medical equipment manufacturing.*** Strengthen joint ventures and partnerships with foreign partners to research, transfer technology for increased domestic production of common medical equipment. Develop medical equipment lists and concrete roadmaps for investment in manufacture of medical equipment for the district and commune levels.

## 5. Health service delivery

### *5A. Preventive medicine and public health services*

#### 5A.1. Priorities

***NCDs are the main cause of burden of disease and mortality and are increasing rapidly yet have received inadequate attention and investments for effective control:*** Activities to control risk factors and prevent disease have not yet had a strong effect, risk factors remain prevalent, detection rates and disease management remain weak. Activities lack integration; grassroots healthcare services do not yet meet the need for effective, continuous and long-term management and care of people with NCDs. Funds for NCD activities are severely lacking and have been cut back substantially.

***Some infectious diseases with major impact on population health have not yet been effectively controlled:*** Vaccine-preventable diseases are still at risk of recurrence. some prevalent diseases lack effective methods for prevention. Mortality due to rabies remains high. The number of people living with HIV and the cumulative number of AIDS cases continues to grow; HIV/AIDS and viral hepatitis are still major concerns for community health. Drug resistance threatens sustainability of TB and malaria control. Dangerous and emerging diseases could spread to Vietnam and are difficult to control.

***Health risk factors related to the environment, lifestyles are hard to control effectively:*** Major regional disparities in coverage of sanitary toilets persist, with a relatively high share of households still not having any toilet. Food poisoning incidence remains difficult to predict, particularly for cases affecting fewer than 30 people. School health activities are still limited and have received inadequate investments. Climate change and natural disasters and difficulties in forecasting them requires full preparation for effective response; while industrialization requires greater environmental protection.

#### 5A.2. Recommendations

***Strengthening the system:*** Consolidate the preventive medicine network by reducing the number of agencies at the local level. Develop provincial preventive medicine centers

that meet national standards; implement the model of district health centers that satisfy both preventive and curative care functions. Consolidate and complete the CHS model appropriate with the region-specific benchmarks to ensure provision of services that fit with local needs.

***Professional capacity:*** Strengthen capacity of preventive medicine and grassroots health services to control risk factors and prevent NCDs; strengthen early detection and ensure disease management and continuous, long-term care for patients in the community. Maintain and strengthen capacity of the infectious disease surveillance systems to prevent, warn, detect early and respond to threats to health. Implement specific measures (guidelines, standard protocols) that can effectively control outbreaks of dengue fever, hand-foot-mouth disease, zoonotic disease, HIV/AIDS; drug resistant TB and malaria; put in place a policy aimed at preventing and controlling TB and malaria that is specifically designed for mountainous and ethnic minority areas. Maintain and strengthen national regulatory system for vaccines. Strengthen EPI, ensure that all children are fully immunized according to regulations and the vaccine schedule. Develop schools that promote health, develop behaviors beneficial to health and control diseases common among school children.

***Communication measures:*** Strengthen communication activities for policy advocacy; behavior change; develop a national policy on health communication; create an effective collaboration mechanism between the health sector and mass media.

***Financing measures:*** Prioritize investments in NCD prevention and control; state budget should focus on surveillance, prevention, early detection of disease. Create a mechanism to ensure delivery of continuous NCD prevention and control services at the grassroots level, particularly at the commune level. Allocate sufficient resources for prevention and control of epidemics, immunizations, prevention and control of HIV/AIDS, dengue fever, TB, malaria, food safety and school health.

***Long-term measures:*** Study and propose regulations to ensure children are fully immunized prior to entering school. Study to establish a community health promotion fund aimed at directly supporting NCD prevention and control and reducing other health risk factors. Consider development of a Law on disease prevention with the goal of comprehensively integrating the various fields and contents of preventive medicine.

### *5B. Medical service delivery, traditional medicine and rehabilitation*

#### 5B.1. Priorities

***The organization of medical service delivery does not yet effectively meet the population's healthcare needs:*** The organization of medical services network does not yet ensure comprehensive and continuous care. Social security and health care for the elderly have received inadequate investment to meet rapidly growing needs due to population aging.

***Large disparities in ability to provide basic medical services across levels of care and geographic region:*** Technical capacity and ability to provide quality and effective services at the provincial and district levels, particularly in disadvantaged regions remains limited.

***Medical service quality management fails to meet needs:*** Many necessary regulations and guidelines have not yet been issued or implemented including: independent quality assessment mechanism, medical practice certification mechanism that is time-limited and linked to CME; standard clinical treatment guidelines for assessment of quality; mechanism

to promote service quality improvement; mechanism for management and assurance of traditional medicine and rehabilitation service quality.

***Tertiary hospitals continue to be overcrowded while lower level facilities are not using their full capacity:*** Overcrowding has not yet been eliminated due to difficulties in ensuring quality of lower level services and health-seeking habits and behavior.

### 5B.2. Recommendations

***Service delivery organization:*** *Organize the medical services delivery network* appropriate for projected morbidity patterns, and with the aim of reducing regional disparities in professional skills, technical capacity and service quality and imbalances; strengthen PHC and grassroots level capacity. Develop a master plan for the medical services network for the period 2016 – 2025 and a vision to 2030. *Study to develop an optimal referral network,* simplify health insurance procedures, strengthen linkages between levels of care and ensure continuity of care.

***Medical service delivery capacity improvement in disadvantaged regions and access to specific types of services for target population groups and regions:*** Invest additional resources and supervise and promote technology transfer in all localities through rotations of health workers. Develop medical service competency standards for the commune level. Develop a long-term strategy for elderly health care; expand and diversify forms of services; continue to implement and extend the model of counselling and healthcare for the elderly in the community, pilot nursing home models through social mobilization efforts; strengthen training of health workers, train and guide family members to participate in health care of the elderly in the family and community.

***Quality management and improvement:*** Refine the system of medical service quality management at all levels; Develop a project to establish an independent organization for medical service quality certification; add new methods and instruments for medical service quality evaluation. Develop incentives to improve quality. Adjust the Law on Examination and Treatment towards evaluation of actual competencies, issuing and renewing medical practice certificates linked to CME. Complete the system for assessing patient feedback on medical service quality. Complete and apply appropriate provider payments to encourage reductions in use of medical services and promote disease prevention and health promotion. Develop national clinical guidelines and facility-based guidelines; determine criteria for use of expensive medical technologies. Create a policy to encourage development and strengthening of management, supervision on quality, safety and effectiveness of traditional medicine and rehabilitation in facilities and in the community

***Reduce hospital overcrowding:*** Effectively implement the project on reducing hospital overcrowding, expand the satellite hospital project to all provinces. Develop a mechanism to assess and evaluate the impact of policies related to reducing hospital overcrowding (e.g. management, finance, health insurance).

## *5C. Population-FP, reproductive health and MCH*

### 5C.1. Priorities

***Maternal and infant mortality remain at high levels,*** particularly in disadvantaged regions. The pace of reducing mortality rates has slowed, requiring more focused interventions.

***Child malnutrition, particularly stunting, remains high.*** This problem is tightly linked to nutrition of mothers during pregnancy and early child nutrition, and leads to

adverse effects on efforts to improve physical stature and constitution of the Vietnamese people.

***Ability to access, provide and use quality population-FP and MCH services among some population groups remains limited.*** Access to and use of antenatal and delivery care in some localities remains limited; there are inadequate services for screening and cost-effective interventions; the proportion of pregnant women and newborns who have undergone screening is quite low; unmet need for FP and the consequence of unwanted pregnancy remain high; ability to meet need for screening and treatment of reproductive tract cancers is limited.

***Imbalance in sex ratio at birth continues to worsen*** due to social pressure and cultural beliefs and lack of effective controls over use of sex-selection technologies.

### 5C.2. Recommendations

***Strengthen attention and leadership for population-FP, reproductive health and MCH at all levels, sectors and localities:*** Invest appropriate amounts of resources in program activities and study mechanisms for integration and collaboration with PHC activities at the grassroots level.

***Strongly promote interventions to reduce maternal and neonatal mortality:*** Continue to implement population-FP, reproductive health and maternal and child health policies including attracting obstetricians and pediatricians to work in disadvantaged regions, and policies for village birth assistants. Encourage culturally appropriate approaches for different ethnic groups, support for ethnic minority women to access and use available and friendly healthcare services to reduce maternal and neonatal mortality. Promote the auditing of maternal and neonatal mortality cases to understand the causes and draw lessons. Focus on implementing interventions that have been proven effective in healthcare and reduction of maternal and neonatal mortality. Strengthen checking and supervision for implementing clinical processes: prevent, detect, treat and refer emergency obstetric and newborn cases; improve collaboration between obstetricians, pediatricians and other specialists, and intensive care units.

***Implement methods to reduce child stunting:*** Develop long-term and medium-term plans to reduce stunting rates. Continue to focus on implementing interventions proven to be effective for improving maternal and child nutrition. Promote community mobilization to improving maternal and child nutrition.

***Strengthen accessibility of population and reproductive health services:*** *Increase access to good quality antenatal and delivery care:* continue to train and implement stipend payments for village birth attendants, implement early essential neonatal care nationally for low weight infants, kangaroo care for premature infants, integrated management of child illness, establish neonatal intensive care units. *Promote screening for congenital diseases and disorders:* Continue to implement available interventions such as folic acid supplements, vitamin K injections, rubella vaccinations; complete development of procedures and technical options for training health workers in techniques for prenatal screening and diagnosis and screening of newborns; strengthen the network and gradually transfer technology to provincial hospitals; expand premarital health checkups and counselling; Continue to implement interventions to reduce child marriages and consanguineous marriage; communicate and support pregnant women and newborns to access screening services, diagnosis, prioritize high risk groups; Organize treatment and provide training and guidance for child rehabilitation of disability. *Ensure provision of FP and reproductive health services for priority groups and regions:* Integrate, reorganize the

system of providing contraceptives and reproductive health services appropriate with the fertility rate in each region. Shift from a model of providing contraceptives for free towards one with partial cost recovery; Encourage and facilitate organizations and individuals to participate in providing population and FP services; strictly penalize violations in the population and FP policy.

***Increase effectiveness of interventions to reduce imbalance in sex ratio at birth:*** Strengthen and improve effectiveness of IEC, BCC. Strengthen checking, supervision aimed at stopping, detecting and severely penalizing sex selection behavior. Develop and implement policies to support improving the role and status of women and girls, particularly in families that only have girls

## 6. Health information systems

### 6.1. Priorities

***Supervision and implementation of the Comprehensive plan for development of the HIS remain weak,*** leading to inability to meet information needs for policy making and planning. Mortality and cause of death information are inadequate and inconsistent; patient records do not allow for continuous monitoring and effectiveness in providing health care. Information from patient records and administrative data are not analyzed or used effectively. Private sector data reporting is irregular and incomplete.

***Implementation of service delivery activities is not supervised adequately to ensure accountability for effective use of resources:*** Information on performance is not readily available for managers to use as evidence for determining where reforms and improvements are needed. Key performance indicators are not yet seen as prerequisites for performance evaluation, for results-based financing or other health financing policies.

### 6.2. Recommendations

***Measures related to implementing the Comprehensive plan for development of the HIS:*** Strengthen crucial health information sub-systems (cause of death, chronic disease registries); audit quality of data; organize surveys to periodically adjust reporting data; strengthen data collection and ensure compliance of the private sector in the HIS. Consolidate the patient records system: Periodically review the coherence and uniformity of instruments for gathering data and rationalizing patient records, primary information gathering forms and reporting forms used by health facilities. Strengthen application of IT: Develop the necessary foundation for an integrated HIS, and effectively use the IT systems to serve health statistics (software, databases, infrastructure). Strengthen measures to disseminate information to serve management, planning, policy formulation and professional activities.

***Measures to develop and apply key performance indicators:*** Develop a project for the HIS to monitor and evaluate implementation of the 5-year and annual plans.

## 7. Governance

### 7.1. Priorities

***Quality and effectiveness, efficiency of health policies and legislation are limited.*** Health policy are issued slowly, involve duplication and do not yet ensure consistency and coherence. Capacity of research units and policy formulation agencies remains weak, collaboration between units is limited. Information is inadequate and evidence not adequately persuasive for policy formulation. Efficiency and effectiveness of health policies is not high, particularly for plans and master plans due to not determining clearly resources

needed for implementation. Plans do not exist with adequate detail for implementation, policies are slow to be put into effect.

***Organization of the health system does not yet meet requirements in the new situation.*** The MOH and provincial health bureaus simultaneously implement state management functions and direct management of service delivery units, the amount of work is enormous, making it difficult to achieve effective performance. There is a need for adjustment in order to better implement the management role. The health facility network is scattered by administrative unit, reducing performance effectiveness. There is no mechanism to encourage, strengthen linkages and cooperation between units and between levels to ensure continuity in service delivery.

***The system and mechanism for inspection, checking, supervision of health sector activities is not yet effective.*** The health inspection network has inadequate inspectors and limited capacity. The role of political and social organizations in monitoring, supervising, criticizing health policies remains limited, capacity of various organizations does not yet meet requirements.

***Public administrative reforms in the health sector have not been implemented seriously enough.*** Administrative reforms are an important part of MOH working agenda and of healthcare facilities, but effectiveness has been limited. Resolution of these shortcomings must be resolved in the coming period.

## 7.2. Recommendations

***Improve quality of health policy formulation and effectiveness of its implementation:*** Strengthen capacity of policy formulation agencies; strengthen collaboration with research units to provide evidence for policy development. Include development of legislation as one indicator of quality performance. Prioritize investment in development, implementation and evaluation of policies. Mobilize participation and involvement of local authorities in implementing health policies, particularly for issues of high social importance, there is a need for intersectoral cooperation.

***Reform management mechanisms and organization of activities of health facilities:*** The MOH should continue to devolve authority, reduce the number of service providing units directly under its control. Strengthen the role of the provincial health departments in advising, organizing implementation, checking and supervision of health sector activities in the localities. Implement ranking of hospitals to encourage technical development; reorganize and reduce the number of units involved in preventive medicine activities at the province and district levels; comprehensively reform the grassroots healthcare system to strengthen linkages between levels, between areas of expertise and between facilities.

***Bring into play the role and improve effectiveness of health sector performance management by the inspectorate, and through checking and verification by professional associations:*** Continue to strengthen capacity of the health inspection network, particularly specialized inspectors, to have adequate ability for enforcement. Supplement regulations, strengthen collaboration between the MOH and professional associations in developing, monitoring and supervising implementation of policies. Create regulations on policy feedback, widely post response of policy formulating agencies to comments from stakeholders.

***Continue to promote public administrative reforms in the health sector:*** Continue to review legal documents related to health to simply or eliminate procedures that are no longer appropriate and are unnecessary. Simplify medical service administrative procedures and

processes, strongly promote application of IT in management to reduce hassles and to make it more convenient for the people to access and use health services. Strengthen information, IEC and bring into play supervision/monitoring by political, social organizations and the people in relation to administrative procedures in the health sector.

## Chapter VI. Recommendations for strengthening the grassroots health network

### 1. Objective

#### 1.1. Overall objective

Create a dramatic and comprehensive change in governance, organization, HRH, finance, physical infrastructure, equipment and operational mechanism of the grassroots healthcare network to improve capacity for service delivery that takes PHC as the foundation, is oriented towards UHC, and at the same contributes to reducing imbalances in the hospital-centered, fragmented service delivery system that lacks continuity between levels of care and between preventive and curative care, improve equity, quality and access to the entire health system.

#### 1.2. Specific goals

- Augment resources for the grassroots health network through capacity building, appropriately motivate grassroots health workers, strengthen financial resources and availability of necessary medicines, equipment and facilities.
- Strengthen capacity and performance of the grassroots network through adjustments in function, tasks, organization and operational mechanism of the CHS, district health center and district hospital; reform the financial mechanism and methods for promoting collaboration between facilities at different levels of the system, ensuring comprehensive, continuous and integrated healthcare service delivery.
- Strengthen leadership capacity and management of the grassroots health network; strengthen management information systems, reform planning, monitoring, supervision, and evaluation linked with grassroots healthcare performance.

### 2. Main solutions

#### 2.1. Leadership and management

- *Raise awareness and responsibility* of the Communist Party and authorities at all levels about the role of the ***grassroots health system as the foundation of the national healthcare system.*** Make strengthening the grassroots health network, and implementing people-centered models of service delivery based on PHC the key task of the health sector requiring continuous and sustainable implementation.
- The MOH should submit to the Government a comprehensive plan for strengthening the grassroots health network to promote PHC with an orientation towards UHC.
- Organize implementation to reform and refine existing policies and regulations on organization and activities of the grassroots healthcare network.
- *Review and adjust public policies that strongly affect grassroots healthcare, particularly financial autonomy policy;* regulations on intersectoral collaboration for formulating and implementing health policies.
- Develop and implement mechanisms and measures for collaboration and integration between health units, facility levels, programs and between treatment and prevention.

- Develop and implement policies and mechanisms that exploit the role of the private health sector and collaboration between public and private sectors in delivering PHC services.
- Continue to consolidate the healthcare steering committees at all local levels, put into play the responsibility of mass organizations, social and community organizations and the people.
- Develop and standardize the HIS to serve performance management of the grassroots healthcare network, linking information between levels of facilities and between facilities, to determine people's healthcare needs at each locality.
- Rely on the national benchmarks for commune health to develop and refine indicators to support strengthening of supervision and evaluation of the performance of the grassroots healthcare network.

### 2.2. Reform the organization and operational mechanism of the grassroots healthcare network

- Adjust the functions and tasks of grassroots health care in a context of changing epidemiology and morbidity patterns; operating like a center to implement linkages between grassroots and higher level facilities.
- Integrate the model and rationale of family medicine into the activities of the CHS.
- Determine the scope of grassroots healthcare services, including consideration of the particular conditions present in different regions.
- Set up a master plan for the grassroots healthcare network appropriate for different regions and changes in grassroots tasks and functions. Refine the district health center model for implementing both preventive and curative care functions.
- Expand the CHS and military-civilian cooperation clinic models in border, remote, isolated and maritime areas. Develop health-related activities in schools, offices, factories, with the orientation of strengthening PHC.
- Continue to strengthen and expand the VHW workforce, including village birth attendants in ethnic minority and disadvantaged areas.

### 2.3. Reform service delivery of the grassroots healthcare network

- Renovate forms of medical service delivery: pay special attention to strengthening health management, palliative care and rehabilitation at home and in the community, particularly for NCDs. Strengthen IEC for behavior change among the population. Apply models of household health management at the grassroots level.
- Ensure regular, continuous, comprehensive, community-based healthcare at the grassroots level, integrated and collaborative service delivery for all medical conditions (communicable, non-communicable and accidents/injuries)
- Strengthen capacity for detecting, screening and timely referrals of patients to appropriate higher level facilities for monitoring and treatment.

### 2.4. Develop human resources appropriate for requirements of the grassroots healthcare network.

- Develop and implement plans to meet human resource needs for the grassroots healthcare network appropriate with the model of PHC-based service delivery.
- Diversify forms of PHC health worker training, particularly in disadvantaged regions, prioritizing local residents.

- Reform curriculum and contents for training PHC health workers with an approach that focuses on capacities and teamwork.
- Implement CME, practical training, professional guidance, technology transfer from higher level facilities to the grassroots level. Pay special attention to implementing pre-service training programs.
- Implement regulations on social responsibility for newly graduated health workers after practical training of 18 months to have the duty to work at the grassroots level. Continue to implement temporary rotations of government health workers at CHS and of CHS workers at higher level facilities. Effectively implement policies to attract and retain health workers at the grassroots level.

### 2.5. Strengthen investment and reforms in the financing mechanism for the grassroots healthcare network

- Public finance is the primary financial resource for the grassroots healthcare network. Mobilize financial and technical support from domestic and foreign organizations and individuals. Appropriately augment state budget allocations for district and commune levels.
- Reform the financing mechanism oriented towards creating motivation for health workers to implement PHC; providing financial protection for people using health services; and especially contributing to improving quality and effectiveness and accountability for the health system.
- Speed up implementation of the universal health insurance roadmap, subsidize the near poor, and people working in farming, forestry, fishing and salt production.
- Reform state budget allocation to grassroots health care oriented towards results based activities and outputs. Reform health insurance reimbursement through capitation payments.
- Expand the model of state commissioning rather than direct provision of services and public-private collaborations for provision of public health services.

### 2.6. Strengthen IEC and BCC for investment and financing reforms for the grassroots health network

- Pay attention to implementation of IEC, disseminating knowledge of disease and risk factors to individuals and the community so they know how to care for their own health and so they make the right choices in use of healthcare services.
- Strengthen community-oriented IEC in order to provide information on reforms in health service delivery to gradually increase trust in the health sector and in the improvements of service quality at the grassroots health network.

| Monitoring indicators | Unit | Disag-gre-ga-tion | Year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (target) |
| ***Input and process indicators*** | | | | | | | | |
| ***Health financing, human resources and infrastructure*** | | | | | | | | |
| Health spending share of GDP | % | National | 6.36 | 6.20 | 5.97 | | | .. |
| Public share of total health spending | % | National | 46.55 | 45.23 | 42.56 | | | (>=50%) |
| Per capita health spending (current prices) | 1000 VND | National | 1579 | 1963 | 2184 | | | .. |
| | | National | | | 936.0 | | | |
| | | RRD | 890.4 | | 1162.8 | | | .. |
| | | NMMA | 454.8 | | 684.0 | | | .. |
| | | NCCCA | 642.0 | | 808.8 | | | .. |
| | | CH | 656.4 | | 789.6 | | | .. |
| | | SE | 939.6 | | 981.6 | | | .. |
| | | MRD | 741.6 | | 1003.2 | | | .. |
| Out-of-pocket share of total health spending | % | National | 44.84 | 45.58 | 48.83 | | | .. |
| Doctors per 10 000 people | Per 10 000 people | National | 7.2 | 7.33 | 7.46 | 7.61 | 7.8* | 8.0 (8.0) |
| University-trained pharmacists per 10 000 people | Per 10 000 people | National | 1.8 | 1.9 | 1.96 | 2.12 | 1.9* | 2.2 (1.8) |
| Inpatient beds per 10 000 people (not including CHS) | Per 10 000 people | Public | 21.7 | 22.5 | 23.5 | 24.2 | | (23) |
| | | Private | .. | .. | 1.1 | 1.1 | | .. |
| Proportion of CHSs served by a doctor | % | National | 70.0 | 71.9 | 73.5 | 75 | 78.0* | 78 (80) |
| | | RRD | 75.7 | 77.5 | 78.7 | 82.5 | | .. |
| | | NMMA | 61.9 | 63.5 | 66.4 | 67.3 | | .. |
| | | NCCCA | 66.2 | 66.0 | 68.8 | 69.0 | | .. |
| | | CH | 57.8 | 66.5 | 69.7 | 75.7 | | .. |
| | | SE | 80.5 | 85.0 | 83.4 | 69.0 | | .. |
| | | MRD | 80.7 | 82.2 | 87.2 | 75.7 | | .. |

| Monitoring indicators | Unit | Disag-gre-ga-tion | Year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (target) |
| Proportion of CHSs served by an obstetrics/pediatrics assistant doctor or midwife | % | National | 95.6 | 95.3 | 96.4 | 96.0 | 98.0* | 96 (>95) |
| | | RRD | 92.5 | 95.3 | 92.2 | 93.3 | | .. |
| | | NMMA | 95.3 | 89.7 | 95.1 | 91.3 | | .. |
| | | NCCCA | 96.6 | 90.5 | 94.5 | 96.1 | | .. |
| | | CH | 96.7 | 99.2 | 97.0 | 99.6 | | .. |
| | | SE | 97.5 | 100.0 | 99.1 | 99.2 | | .. |
| | | MRD | 97.3 | 99.1 | 96.7 | 100.0 | | .. |
| Proportion of rural villages served by a village health worker | % | National | 97.5 | 96.9 | 96.6 | 91.5 | | (90) |
| | | RRD | 98.4 | 97.9 | 98 | 96.1 | | .. |
| | | NMMA | 97.8 | 96.2 | 96.3 | 94.0 | | .. |
| | | NCCCA | 98.2 | 98 | 97.9 | 88.9 | | .. |
| | | CH | 97.2 | 98 | 98.1 | 92.1 | | .. |
| | | SE | 99.9 | 99.9 | 96.6 | 100.0 | | .. |
| | | MRD | 92.4 | 92.5 | 90.8 | 81.9 | | .. |
| Proportion of communes meeting national commune health bench-marks (new benchmarks applied since 2011)<br>Data for 2011 – 2012 represent a mix of the old and new benchmarks | % | National | 80.1 (2001 – 2010) | 76.8 | 73.4 | 42 (50) | 55* | 60 (60) (2011-2020) |
| | | RRD | 91.1 | 89.6 | 90.3 | 36.6 | | .. |
| | | NMMA | 74.3 | 61.9 | 53 | 29.2 | | .. |
| | | NCCCA | 73.8 | 72.5 | 68.5 | 36.8 | | .. |
| | | CH | 64.7 | 61.1 | 61.9 | 37.2 | | .. |
| | | SE | 87.5 | 90.2 | 90.7 | 66.9 | | .. |
| | | MRD | 86.5 | 88.6 | 87.1 | 43.1 | | .. |
| Number of drug outlets per 10 000 people | Per 10 000 people | National | 5.0 | 4.6 | 4.4 | 4.5 | 4.7 | |
| Outpatient consultations per 10 000 people | Per 10 000 people | National | 3980 | 3988 | 4417 | 4555 | | .. |
| Inpatient admissions per 10 000 people | Per 10 000 people | National | 1370 | 1374 | 1486 | 1488 | | .. |

| Monitoring indicators | Unit | Disag-gre-ga-tion | Year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (target) |
| Average length of inpatient stay | Days | National | 7.35 | 6.83 | 6.89 | 6,92 | | .. |
| | | Central | 10.3 | 9.41 | 9.51 | 9.51 | | .. |
| | | Sectoral | 11 | 6.55 | 8.53 | 8.53 | | .. |
| | | Prov. and dist. | 7.1 | 6.61 | 6.57 | 6.60 | | .. |
| Proportion of people having medical treatment in the past 12 months | % | National | 40.9 | | 39.2 | | n/a | |
| Proportion of women giving birth who had 3 or more antenatal visits over 3 trimesters | % | National | 79.2 | 86.7 | 89.4 | 84.5 | n/a | >90 (80 or 87*) |
| Proportion of pregnant women fully vaccinated against tetanus | % | National | 93.5 | 94.6 | 95.5 | 95.7 | 82.2 [MICS] | .. |
| Proportion of children under age 1 who are fully immunized *(7 vaccines in 2010 and 8 vaccines in the period* 2011 – *2015)* | % | National | 94.6 | 96.0 | 95.9 | 91.4 | >90* | >90 (>90 for 8 vaccines) |
| | | RRD | 98.6 | 98.2 | 97.7 | 94.0 | n/a | (>95) |
| | | NMMA | 94.5 | 94.5 | 95.5 | 90.6 | n/a | (>90) |
| | | NCCCA | 97.3 | 95 | 97.1 | 90.9 | n/a | (>95) |
| | | CH | 93.8 | 95.4 | 96.5 | 81.8 | n/a | (>90) |
| | | SE | 94.1 | 96.8 | 93.3 | 93.0 | n/a | (>90) |
| | | MRD | 88.1 | 94.8 | 95 | 91.6 | n/a | (>90) |
| Proportion of women giving birth who were assisted by a trained health worker | % | National | 97.1 | 97.2 | 97.9 | 97.8 | 98 | 98 (96 or 98*) |
| Proportion of mothers and newborns given postpartum/ postnatal care | % | National | 87.8 | 87.2 | 87.3 | 87.9 | 91.2 | (85) |
| Health insurance coverage rate | % | National | 60.3 | 65.0 | 66.4 | 68.5 | 71.0* | 75.3 (70) |
| Proportion of people seeking inpatient or outpatient care who have health insurance or fee exemption card | % | National | 66.7 | .. | 72.1 | .. | | |
| | | Poorest | 74.1 | .. | 81.5 | .. | | |
| | | Near poor | 61.2 | .. | 67.7 | .. | | |
| | | Average | 60.4 | .. | 66.6 | .. | | |
| | | Above average | 66.6 | .. | 69.4 | .. | | |
| | | Better off | 70.9 | .. | 75.3 | .. | | |

| Monitoring indicators | Unit | Disag-gre-ga-tion | Year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (target) |
| Contraceptive prevalence rate (women aged 15 – 49) | % | National | 78 | 78.2 | 76.2 | 77.2 | 75.7 | 70.1 |
| ***Impact indicators*** | | | | | | | | |
| ***Health status*** | | | | | | | | |
| Life expectancy at birth | Years | National | 72.9 | 73.0 | 73.0 | 73.1 | 73.2 | 73.3 (74) |
| | | Male | 70.3 | 70.4 | 70.4 | 70.5 | 70.6 | |
| | | Female | 75.7 | 75.8 | 75.8 | 75.9 | 76.0 | |
| Annual rate of decline in fertility | ‰ | National | Fall 0.5 | Fall 0.5 | Rise 0.3 | Rise 0.1 | Rise 0.2 | Fall 1.0 (Fall 0.1) |
| Total fertility rate | Average number of children born per woman | National | 2.00 | 1.99 | 2.05 | 2.10 | 2.09 | 2.1 (1.9) |
| | | RRD | 2.04 | 2.06 | 2.11 | 2.11 | 2.30 | |
| | | NMMA | 2.22 | 2.21 | 2.31 | 2.18 | 2.56 | |
| | | NCCCA | 2.21 | 2.21 | 2.32 | 2.37 | 2.31 | |
| | | CH | 2.63 | 2.58 | 2.43 | 2.49 | 2.30 | |
| | | SE | 1.68 | 1.59 | 1.57 | 1.83 | 1.56 | |
| | | MRD | 1.80 | 1.80 | 1.92 | 1.92 | 1.84 | |
| Maternal mortality ratio | Per 100 000 live births | National | .. | .. | .. | .. | .. | 58.3 (58.3) |
| Infant mortality rate | Per 1000 live births | National | 15.8 | 15.5 | 15.4 | 15.3 | 14.9 | 14.7 (14.8) |
| | | RRD | 12.3 | 12.5 | 12.3 | 12.2 | 11.8 | |
| | | NMMA | 24.3 | 23 | 23.5 | 23.2 | 22.4 | |
| | | NCCCA | 17.1 | 17.1 | 17.1 | 17.0 | 16.6 | |
| | | CH | 26.8 | 24.3 | 26.4 | 26.1 | 25.9 | |
| | | SE | 9.6 | 9.3 | 9.2 | 9.1 | 8.8 | |
| | | MRD | 12.6 | 12.2 | 12 | 12.0 | 11.6 | |
| Under-five mortality rate | Per 1000 live births | National | 23.8 | 23.3 | 23.2 | 23.1 | 22.4 | 22.1 (19.3) |
| TB case detection rate (all forms) | Per 100 000 people | National | 113.9 | 114 | 117 | 113.9 | | |

| Monitoring indicators | Unit | Disag-gre-ga-tion | Year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (target) |
| Pulmonary TB (AFB+) case detection rate | Per 100 000 people | National | 52.7 (60.0) | 57.7 | 57.5 | 56.4 | | |
| Cure rate for new cases of pulmonary TB (AFB+) | Per 100 000 people | National | 90.5 | 90.8 | 91.1 | 90.5 | | |
| Smoking prevalence rate (18 years and older) | % | National | 47.4 | .. | .. | .. | .. | |
| Proportion of rural households using improved sanitation facility | % | Rural | | 55 | 57 | 60 | 63 | (68.5) |
| Proportion of rural households using improved water source | % | Rural | | 79.7 | 80.5 | 82.5 | 84.5 | (78.5) |
| Proportion of rural population using a sanitary toilet | % | Rural | 67 | 72 | 70 | | 74 | (65) |
| Proportion of rural population using clean drinking water | % | Rural | 87 | 89 | 88 | | 89 | (85) |
| Proportion of medical facilities whose medical solid waste is treated according to national environmental standards | % | National | .. | .. | | | .. | (80) |
| Unmet need for family planning (women aged 15 – 49) | % | National | .. | 4.3 | .. | .. | 6.1 | |
| Dengue fever new case detection rate | Per 100 000 people | National | 146,69 | 78.08 | 96.98 | 74.78 | 31.7 | 88.8 |
| Malaria incidence (passive detection) rate | Per 100 000 people | National | 62.0 | 51 | 49 | 39 | 27 | (<15; 2020) |
| Leprosy prevalence rate | Per 100 000 people | National | 0.37 | 0.36 | 0.30 | 0.25 | | (0.2) |
| Leprosy new case detection rate | Per 100 000 people | National | 0.41 | 0.43 | 0.34 | 0.29 | | (0.3) |
| Population growth rate | % | National | 1.07 | 1.05 | 1.08 | 1.07 | 1.08 | 1.07 (0.93) |
| Population | Million people | National | 86.9 | 87.86 | 88.81 | 89.76 | 90.73 | 91.7 (<93.0) |
| | | RRD | 19.9 | 20.1 | 20.3 | 20.5 | 20.7 | |
| | | NMMA | 11.2 | 11.3 | 11.4 | 11.5 | 11.7 | |
| | | NCCCA | 19.0 | 19.1 | 19.2 | 19.4 | 19.5 | |
| | | CH | 5.2 | 5.3 | 5.4 | 5.4 | 5.5 | |
| | | SE | 14.5 | 14.8 | 15.1 | 15.5 | 15.8 | |
| | | MRD | 17.3 | 17.3 | 17.4 | 17.4 | 17.5 | |
| | | Urban | 26.5 | 27.8 | 28.6 | 28.9 | 30.0 | |
| HIV detection rate | Per 100 000 people | National | 15.9 | 16.1 | 15.9 | 12.9 | .. | |

| Monitoring indicators | Unit | Disag-gre-ga-tion | Year | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (target) |
| HIV/AIDS prevalence | Per 100 000 people | National | 211.3 | 224.4 | 237.5 | 242.2 | 246.9 | 252.2 (<300.0) |
| Food poisoning | Cases | National | 5397 | 4700 | 5541 | 5558 | 5203 | 4273 |
| | Incidents | National | 173 | 148 | 168 | 167 | 194 | 140 |
| | Deaths | National | 49 | 27 | 34 | 28 | 43 | 20 |
| Malnutrition rate of children under age 5 (weight for age) | % | National | 17.5 | 16.8 | 16.2 | 15.3 | 14,5 | 14.1 (15) |
| | | RRD | 14.6 | 14.2 | 11.8 | 10.9 | 10.2 | |
| | | NMMA | 22.1 | 21.2 | 20.9 | 19.5 | 19.8 | |
| | | NCCCA | 19.8 | 17.8 | 19.5 | 16.5 | 17.0 | |
| | | CH | 24.7 | 23.8 | 25 | 21.8 | 22.6 | |
| | | SE | 10.7 | 11.3 | 11.3 | 8.0 | 8.4 | |
| | | MRD | 16.8 | 15.4 | 14.8 | 13.8 | 13.0 | |
| Stunting rate of children under age 5 (height for age) | % | National | 29.3 | 27.5 | 26.7 | 25.9 | 24.9 | 24.2 (26) |
| | | RRD | 25.5 | 24.8 | 21.9 | 20.8 | 20.3 | |
| | | NMMA | 33.7 | 32.4 | 31.9 | 30.6 | 30.7 | |
| | | NCCCA | 31.4 | 29.7 | 31.2 | 27.7 | 28.1 | |
| | | CH | 35.2 | 35 | 36.8 | 32.9 | 34.9 | |
| | | SE | 19.2 | 21.5 | 20.7 | 16.5 | 18.3 | |
| | | MRD | 28.2 | 26.8 | 26 | 24.5 | 24.0 | |
| Sex ratio at birth | Number of boys born for every 100 girls | National | 111.2 | 111.9 | 112.3 | 113.8 | 112.2 | 112.8 (≤113) |
| | | RRD | 116.2 | 122.4 | 120.9 | 124.6 | 118.0 | |
| | | NMMA | 109.9 | 110.4 | 108.2 | 112.4 | 116.1 | |
| | | NCCCA | 114.3 | 103.3 | 112.1 | 112.3 | 105.5 | |
| | | CH | 108.2 | 104.3 | 98.4 | 114.1 | 108.0 | |
| | | SE | 105.9 | 108.8 | 111.9 | 114.2 | 108.9 | |
| | | MRD | 108.3 | 114.9 | 111.5 | 103.8 | 114.1 | |
| ***Financial protection*** | | | | | | | | |
| Proportion of households facing catastrophic spending (out-of-pocket spending exceeds 40% of capacity to pay) | % | National | 3.3 | | 2.5 | | 2.3 | |

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# JOINT ANNUAL HEALTH REVIEW 2015

## Strengthening primary health care at the grassroots towards universal health coverage

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