JOINT ANNUAL HEALTH REVIEW 2014

Strengthening prevention and control of non-communicable diseases

Executive summary

The Joint Annual Health Review 2014-JAHR 2014 is the eighth annual review developed by the Ministry of Health in collaboration with the Health Partnership Group (HPG). In addition to providing updates on the current situation of the health system, including information about implementation of tasks and goals set out in the Five-year health sector plan 2011-2015, and progress towards achieving the UN Millennium Development Goals, the JAHR 2014 focuses on in-depth analysis of *"Strengthening prevention and control of non-communicable diseases"*. The report contains 8 chapters divided into three parts with the following main contents.

PART ONE: UPDATE ON THE SITUATION OF THE HEALTH SYSTEM

I. Health status and determinants

1. Health status

1.1. Basic health indicators

In recent years, the health status of Vietnamese people has improved considerably, in terms of life expectancy, infant mortality, under-five mortality, and child malnutrition. However, large disparities in health indicators across regions and population groups are a major issue of concern at present, especially lower health status in the Central Highlands and Northern midlands and mountain areas, the two most disadvantaged regions.

1.2. The burden of disease

In the period 1990-2010, the burden of disease, expressed in DALYs, caused by communicable diseases, maternal and neonatal health problems, and nutritional disorders decreased from 45.6% to 20.8%. At the same time, the burden attributed to non-communicable diseases increased from 42% to 66% of total DALYs. Among infectious diseases, maternal and neonatal health problems and nutritional disorders, the major disease burden is caused by HIV/AIDS, lower respiratory tract infections, tuberculosis, preterm birth complications, and helminths. Cancer, cardiovascular diseases (mainly causing premature deaths), mental and behavioral disorders, and osteoarthritis (mainly causing years of living with disabilities) are the leading causes of the burden of non-communicable diseases (NCDs). Three main causes of the burden of accidents and injuries are road traffic injuries, drowning, and falls.

Four major causes of the burden of disease among males are hemorrhagic stroke, road traffic injuries, HIV/AIDS, and lower back pain, while the burden of diseases among females is mainly due to depression, hemorrhagic stroke, lower back pain, and chronic obstructive pulmonary disease (COPD).

1.3. Some diseases receiving special attention

Several types of flu including influenza A (H5N1) and influenza A (H1N1) and some emerging diseases such as Ebola, MERS-CoV, influenza A (H7N9) and influenza A (H5N6) have potential to cause widespread outbreaks. The burden of vaccine preventable diseases remains high due to either unavailability of rubella vaccine, rotavirus vaccine, meningococcal vaccine, and pneumococcal vaccine in the extended immunization program (EPI) or implementation shortcomings of the EPI, for example, immunization against measles. HIV/AIDS and tuberculosis are two diseases with high prevalence and mortality rates. Some other communicable diseases have high prevalence including helminths, lower respiratory tract infection, and hepatitis A, B and C, or high case fatality rate, such as hand, foot and mouth disease.

The leading causes of death among infants under 7 days of age are preterm birth complications, congenital anomalies, and birth asphyxia and trauma. Meanwhile, lower respiratory tract infection, diarrhea, and drowning mainly lead to deaths among children aged 7 days to 5 years.

2. Health determinants

2.1. Demographic and socio-economic factors

Age structure, especially population aging, affects the burden of disease morbidity patterns and health care needs, which vary across age groups. Aging is a risk factor leading to many NCDs such as cardiovascular diseases, diabetes, and cancer. Thus, the higher the proportion of people aged 65 or older, the heavier the burden caused by these diseases. Women of childbearing age and children, account for 27% and 8.5% of the population respectively, have high demand for vaccination services, as well as reproductive and obstetric/pediatric health services.

Socio-economic development has positively affected people's health through improving nutrition and access to health information and services. However, it is also associated with pollution, unhealthy lifestyles and other factors harmful to health.

Disparities in health result from inequalities in access to quality health services, including preventive medicine services across regions with different levels of socio-economic development.

2.2. Environmental, lifestyle, and physiological risk factors

The leading risk factor for burden of disease in Vietnam is inappropriate diet, including both inadequate healthy items like vegetables and fruits and excess of unhealthy items such as processed meat and sugar-sweetened drinks. The second leading risk factor consists of physiological factors such as hypertension and high blood cholesterol. Other important risk factors include tobacco smoking, air pollution, and harmful use of alcohol and drug.

3. Challenges for the health system

3.1. Priority health issues

- *Communicable diseases* include diseases with high prevalence and mortality rates such as HIV/AIDS, tuberculosis, and dengue fever; eradicable diseases such as

malaria, Japanese encephalitis, rabies, and leprosy; emerging diseases with potential for widespread outbreaks such as those caused by MERS-CoV virus and Ebola virus, and some zoonotic diseases like influenza A (H5N1) and influenza A (H1N1).

- *Non-communicable diseases (NCDs)* accounting for a high burden of disease and death include: cancer, cardiovascular diseases such as hypertension and stroke, COPD, diabetes, mental and neurological illness, like schizophrenia and epilepsy, and disorders due to alcohol or drug abuse, and road injuries.
- *Diseases leading to high disease burden among children* including pneumonia, diarrhea, encephalitis, meningitis, hand, foot and mouth disease, congenital anomalies, encephalopathy due to birth asphyxia and trauma, and drowning.

3.2. Disparities in health status and health care across regions and population groups

- *Disparities in basic health indicators* including life expectancy, child mortality rates, the maternal mortality rate, and the malnutrition rates.
- Regional disparities in morbidity patterns, exposure to risk factors, and accessibility to quality health services require appropriate response of the health system.

3.3. Health determinants

- *Population aging* increases demand for health care and raises the burden for families with elderly members and the burden of health expenditure for the whole society, especially for spending on NCD treatment and end-of-life care. The current health care system is not responding adequately in the face of this rapid change.
- *Increased risk factors as a result of industrialization, modernization, and urbanization such* as air pollution, water pollution, food contamination, solid waste pollution, occupational diseases and accidents; stressful working environment, and problems posed by migration and urbanization.
- *Lifestyle factors*, especially inappropriate diet that is poor in healthy items and rich in unhealthy items, tobacco smoking, alcohol and drug abuse, lack of physical activity, and *physiological factors such as hypertension and high blood cholesterol.*

3.4. The provider service system remains limited

- *The service delivery system is fragmented and discontinuous*, especially between preventive and curative subsectors. Integrated care and continuity of care are not yet effectively implemented. There is substantial unmet need for NCD prevention.
- *The district and lower level health network remains weak and lacks* health manpower, means, and motivation to meet the increasing needs of people for health care, especially of the elderly, women, and children.

II. Update on the situation of the health system

1. Major tasks of the health sector in 2014

1.1. Health sector governance

- Submit the revised Law amending and supplementing some articles of the Law on Health Insurance to the National Assembly for approval; submit the drafts of the revised Law amending and supplementing some articles of the Pharmaceutical Law 2005, the Alcohol Control Law and the Population Law to the National Assembly for feedback.
- Complete draft decrees guiding laws that were promulgated in 2014 and circulars guiding the implementation of decrees.
- Submit the project on strengthening health inspection capacity 2014–2020 to the Prime Minister for approval, with a focus on inspection of policies and laws in the area of health insurance, social mobilization for health, regulation of pharmaceuticals and competitive tendering for drug procurement.
- Strengthen health sector administrative reforms. Implement the pilot project for assessment of patient satisfaction with state health services; and implement the Plan for the Project on strengthening civil service reform.
- Promote implementation of the Health Ministerial Directive No. 03/CT-BYT; increase effectiveness of hospital hotlines; and implement Circular No. 07 on the code of conduct of health officials, workers, and employees in state health service units.

1.2. Human resources for health

- Implement the pilot project on sending newly graduated doctors voluntarily to serve mountainous, border, maritime and socio-economically disadvantaged regions, with priority placed on 62 poor districts and implement temporary secondment of medical practitioners from higher levels to serve lower level medical care facilities.
- Submit proposal for starting salary and basic salary appropriate with characteristics of the health sector to the Government for approval and promulgation. Gradually incorporate salary into medical service prices according to the National Assembly Decree 85 and Resolution 68.
- Develop long-term plans for comprehensive reform of the health workforce training system, the quality accreditation system of health workforce training, and the quality accreditation system of medical training outcomes.

1.3. Health financing

- Focus on implementing Government Decree No. 85/2012/ND-CP. Develop and issue the medical service price schedule that incorporates all costs of providing services in hospitals that are capable of full cost recovery, including overheads, from collecting hospital fees. Adjust and supplement regulations on social mobilization for health and public-private partnership in state hospitals. Strengthen financial autonomy in state

service provision units. Gradually develop and implement the roadmap for adjustment of medical service prices according to Decree No. 85/2012/ND-CP.

- Reform methods of state budget allocation for health units on the basis of performance and outcomes. Reform provider payment methods. Develop and issue a mechanism for budget allocation for preventive medicine facilities and other health sector units including those involved in quality control, accreditation, population and family planning, and health education and communication.
- Concentrate on implementing the roadmap to universal health insurance; expand population coverage, service packages, and financial protection for the insured covered by health insurance; continue to implement Politburo Resolution No. 121-NQ/TW and National Assembly Resolution No. 68/2013/QH13 on health insurance.
- Ensure adequate funding for purchase of health insurance cards for the poor and beneficiaries of social welfare policies; gradually shift from supply to demand side subsidies by reducing direct provider subsidies and increasing full and partial subsidies for health insurance premiums; expand health insurance coverage to reduce the financial burden for people seeking medical care services.

1.4. Pharmaceuticals and medical equipment

- Ensure adequate drugs and medical equipment to serve prevention and treatment needs, implement effective measures to control drug prices.
- Strengthen inspection and surveillance to ensure drug quality; promote implementation of measures to ensure safe and rational use of drugs and to reduce over-prescription of drugs in state and private health facilities.
- Effectively implement competitive tendering for drug procurement following regulations in order to stabilize drug prices. Implement the campaign promoting "Vietnamese people to prioritize use of Vietnamese medicine".
- Develop action plans to implement the Strategy for the development of the pharmaceutical sector to the year 2020, with a vision to 2030.

1.5. Preventive medicine, epidemic control and food safety

- Continue to promote health education and communication; effectively implement national health target programs, prevent outbreaks of epidemics, and implement timely measures to control any outbreaks that do occur.
- Focus on guiding food safety and hygiene activities; implement EPI to sustain the high immunization rates; develop and implement activities for prevention and management of NCDs, occupational diseases, and injuries.
- Continue to implement prevention and control of HIV/AIDS effectively, scale up ARV treatment and methadone replacement therapy; implement 3 Reduction Goals, including reducing HIV prevalence, deaths from HIV/AIDS, and discrimination against HIV/AIDS patients; advocate the UN 90 90 90 goals for prevention and control of HIV/AIDS; implement the project for ensuring sustainable financing for prevention and control of HIV/AIDS.

- Develop plans to implement Governmental Resolution No. 05/NQ-CP and promote progress towards Millennium Development Goals (MDGs) for health.

1.6. Grassroots health care

- Complete legal documents on the organization and operation of the district health system, including functions, tasks and duties of district health centers and commune health stations; develop the project on strengthening capacity for the district health system in the new situation.
- Strengthen and complete the organization, infrastructure, equipment, health workforce, and operational mechanism of the district health system (including commune and village levels) to improve quality of primary health care services and to meet people's demand for health care; promote implementation of the Family Medicine project.

1.7. Medical services

- Speed up implementation of key infrastructure investment projects, including the construction of Tan Trieu facility of the National Cancer Hospital, the National Hospital of Pediatrics, and the Center for Child Oncology and Cardiology in Bach Mai Hospital. Begin construction of secondary facilities of 5 tertiary hospitals.
- Localities complete construction and put district and provincial hospitals into use by using funds mobilized from Government bond sales for the periods 2012–2015 and 2014–2016, local budget, and other legal sources.
- Concentrate on upgrading outpatient clinics, reducing patient waiting times, and reducing the number of visits per doctor per day; gradually reduce overcrowding and doubling up in hospital beds through speeding up implementation of 15 Satellite Hospital projects for specialties such as oncology, cardiology, pediatrics, obstetrics, surgery, and trauma.

1.8. Population-family planning

- Flexibly implement measures to ensure low and rational fertility levels, reduce the sex imbalance at birth.
- Recommend adjustment and supplementation of policies to take advantage of the period of "golden population" and to adapt to "population aging".

2. Implementation of the plan for the protection, care, and promotion of the people's health 2011–2015

2.1. Strengthen health management capacity

2.1.1. Achievements

The Ministry of Health in collaboration with other relevant ministries and sectors has developed and submitted *many legal documents and important projects* to the Government and the National Assembly for approval and promulgation. The Ministry of Health *has also strengthened the organization of MOH units* according to Decree No. 63 (2012) and continues to develop a MOH Circular on the functions, obligations, tasks, powers and the organizational

structure of the district health center. The Ministry of Health has developed a draft Decree on the organizational structure and management of commune health workers.

The Ministry of Health has reviewed and approved the Health Planning Framework and the Guidelines on provincial health planning and continues to organize training courses on *strengthening health management and planning capacity*. Some localities have started to develop the provincial health plan in accordance with this health planning framework.

The Ministry of Health has developed and *implemented health inspection plans,* and has proposed measures to fix loopholes in health policies, mechanisms and legislation. The Ministry of Health has also strengthened inspections to detect limitations in social mobilization for health and has issued Directive No. 05/CT BYT dated 22 May 2014 on *strengthening inspection and correction of social mobilization for health and provision of high quality health services for higher than official fees.*

2.1.2. Difficulties and shortcomings

Formulation of legal documents continues to lag behind plan deadlines. The organizational structure, functions and obligations of medical care facilities, especially at the district and lower level facilities, have not yet been adjusted and completed in order to respond to changes in morbidity patterns as well as to satisfy people's demand for health care. The district health system and primary health care remain weak and receive inadequate attention. There are few linkages between preventive and curative care, and between the commune, district, and provincial levels and the central level. There is no incentive for health planning reforms. Inspection and quality control remain largely ex-post passive activities, taking place after errors have already been made, rather than being pro-active to prevent errors. The number and training of health inspectors remain inadequate. Limitations remain in state management regulations on social mobilization for health and provision of higher quality services for higher fees.

2.2. Health human resources

2.2.1. Achievements

The number of health workers has increased over the years, reaching 7.5 doctors per 10 000 population and 2.01 university-trained pharmacists per 10 000 population. The number of health workers at the district and commune level has also risen. In 2013, 76.9% of the commune health stations were served by a doctor. The Ministry of Health continues to implement measures to improve the quality of the health workforce.

The number and the size of medical training establishments continue to increase. Some policies to manage and improve the quality of health human resources are being carried out, including issuing practice certificates and developing capacity standards. In order to improve communication between health workers and patients, the Ministry of Health has organized training courses on communication skills and professional ethics.

Some policies have been issued and implemented to strengthen capacity of health workers at lower levels and to appropriately distribute the health workforce across regions and specialties, including Project 1816 on temporary secondment of medical practitioners at medical care facilities, the satellite hospital project with medical technology transfer, the project encouraging training and development of health workers for selected specialties suffering

shortages of manpower and the pilot project on sending newly graduated doctors voluntarily to serve in mountainous and disadvantaged areas. The Decree on the organizational structure and management policies for health workers at communes, wards and towns has been developed and is expected to be promulgated in 2014.

2.2.2. Difficulties, shortcomings

The capacity of the health workforce remains unequal by region and specialty. Highly qualified health manpower is mainly concentrated in cities and economically developed areas. There is a shortage of health workers with university or higher education at the district and lower level facilities and in disadvantaged areas. The pilot project of bringing newly graduated doctors to serve disadvantaged areas does not provide a sustainable solution for the shortage of health workers in these areas. There have not been any significant changes in the mechanism for recruitment and use of the health workforce in localities while salary and incentive policies are not attractive enough to draw health workers, such as remote and mountainous areas. The implementation of the projects to strengthen capacity for lower levels still faces difficulty because the set of technologies that need to be transferred has not yet been determined or is not based on the existing infrastructure conditions at district and lower level facilities. The working environment in disadvantaged areas does not meet the requirements of health workers.

Management of the health workforce does not yet meet demands of society. Health worker conduct has led to dissatisfaction among patients and the whole society in recent years. The mechanism for managing medical care facilities and for deploying leaders and managers at all levels contribute to reducing the number and working time of health workers. The number of nurses per doctor remains low, despite the large number of nurses trained every year. The granting of medical practice certificates without time limits and without examination of practical skills has contributed little to ensuring standard basic quality of medical practitioners throughout the system.

2.3. Health financing

2.3.1. Achievements

In the context of macroeconomic difficulties, the Government has had to tighten spending. However, the state budget is still allocated for recurrent spending on health, including spending on medical examination and treatment, preventive medicine, salary reforms, implementation of national target programs, and subsidies for health insurance for entitlement groups according to the Law on Health Insurance. It is estimated that the annual state budget health spending growth in the period 2010–2013 was lower than the growth in state budget spending overall. However, the converse is seen in 2014. The total value of ODA remains stable. Spending on preventive medicine and health promotion has increased considerably over the years due to increased local spending. In 2011 spending on preventive medicine accounted for 69.8% of total state budget spending on health, 43.9% of overall health budget including payments by health insurance and hospital fees and 27.9% of overall health expenditure. The revised Law adjusting and supplementing some articles of the Law on Health Insurance was approved by the National Assembly on 13 June 2014. Social health insurance covers 68.5% of the population. The health insurance fund remains balanced. The Ministry of Health is concentrating on developing legal documents guiding implementation of Decree 85 on reforming the operational and financial mechanism of the health sector.

On the basis of a situation analysis and consideration of advice from both domestic and international sources, the committee drafting the revision to capitation payments is implementing various options as pilots, to serve as the basis for developing a circular guiding implementation nationwide. The pilot project of case mix payments continues to be implemented through activities that aim at strengthening capacity for case mix payments and developing professional procedures and clinical quality standards.

2.3.2. Difficulties, shortcomings

Macroeconomic difficulties have slowed growth in state budget spending on health. Insufficient funds have been allocated for implementing some health sector activities, such as health inspection, health statistics, health education and communication, and interventions to prevent and control NCDs in the community. Out-of-pocket spending on health increased to 49% in 2012 while state budget spending on health spending fell to 42.6%, rather low compared to the minimum planned target of 50%. Some localities have not allocated adequate funds for health care according to existing policies. Investment in district and lower level health care has been low and unstable. In 2014, funds for the national health target programs were cut, impeding implementation of health programs and projects, especially NCD prevention and control projects. Progress towards universal health insurance coverage has been slow. Some aspects of use and management of health insurance funds lack effectiveness and sustainability. The health management information system remains weak and fraud is still evident in use of health insurance funds.

Reform of provider payment methods has been slow and fraught with difficulties because it affects the interests of many stakeholders and requires their collaboration and consensus. Conditions for implementing new provider payment methods remain limited.

The promulgation of legal documents guiding implementation of Decree 85 faces difficulty due to limitations in some policies such as social mobilization for health and management of public medical service prices. There are many problems affecting effective use of resources in state health facilities such as control of waste and shortcomings in managing doctor prescribing of drugs and services. The implementation of financial autonomy in state health facilities faces difficulty since resources to ensure financial balance, especially labor costs, remain inadequate.

2.4. Pharmaceuticals and medical equipment

2.4.1. Achievements

The task of ensuring adequate supply of essential drugs has been effectively implemented. Spending on drugs per capita increased from 22 USD in 2010 to 31.2 USD in 2013. Domestically manufactured drugs accounted for 46.2% of total drugs used in Vietnam in 2012, with two-thirds of the active ingredients included in the Vth essential drug list. The drug supply network in disadvantaged area is expanding. Vietnam produces 10 out of 11 types of vaccines used for the EPI. Use of traditional and herbal medicines is promoted through issuing of the list of essential traditional and herbal medicines, approval and implementation of the master plan for the development of medicinal materials, developing medicinal material growing areas in accordance with good practice standards, and strengthening management of the origin and quality of medicinal materials.

The drug market is generally stable. The drug consumer price index has been increasing more slowly than the general consumer price index. Drug prices in Vietnam are lower than in Thailand and China for the same drugs. The implementation of legal documents on control of drug prices and competitive tendering for drug procurement has shown initial improvements.

The Ministry of Health has been actively implementing the policy on comprehensive management of drug quality through applying Good Practice standards (GP's) and strengthening capacity for drug quality testing. In order to promote safe and rational use of drugs, the Ministry of Health has strengthened the role and activities of the Drug and Therapy Council in hospitals, implemented the national action plan to combat drug resistance, strengthened monitoring and surveillance of adverse drug reactions, and developed drug databases.

The Ministry of Health has collaborated with the Ministry of Finance to investigate research and recommend tax incentives for domestic medical equipment manufacturers. Currently, approximately 600 types of medical equipment are accredited and issued with licenses for circulation by the Ministry of Health. The health care network at all levels continues to be upgraded and expanded through Project 47 and Project 930 on building and upgrading some district hospitals, general provincial hospitals, regional hospitals, and certain specialized hospitals.

2.4.2. Difficulties, shortcomings

Many essential drugs are still not included in the list of drugs covered by health insurance, including drugs in the national health target programs like drugs for treating HIV/AIDS and tuberculosis. In addition, distribution of drugs to commune health stations is slow, inadequate and does not meet treatment needs.

Drug price controls at retail pharmacies that are not attached to medical care facilities face difficulties due to lack of effective mechanisms to assess the reasonableness of drug prices. Although drug prices can be controlled through bidding for drug procurement, there are still no measures to encourage doctors to pay attention to cost-effectiveness when prescribing drugs. Consensus has not yet been reached on the organization and distribution of responsibilities for implementing state management of drug prices.

Safe and rational use of drugs suffers from lack of information about drugs that are suspended from circulation, lack of monitoring of safe and rational use of drugs, and a shortage of university-trained pharmacists in disadvantaged areas. Regulations on developing a drug distribution model that is capable of ensuring drug quality remain inadequate. Management of quality of traditional medicines faces difficulty because it is hard to monitor the origin and quality of traditional medicines and medicinal materials. Many traditional and herbal medicine manufacturers are private household enterprises and their production facilities lack modern equipment.

Reduction in funds mobilized through sale of Government bonds has slowed the upgrading of district hospitals. Some projects are delayed until after 2015 or have had to be converted to other forms of investment, causing limitations in service delivery.

2.5. Health management information system

2.5.1. Achievements

In the last two years, a series of legal documents have been issued by the Government and the Ministry of Health, especially legal documents on strengthening general reporting for state

health facilities and private health facilities and applications of health information technology. In addition, the Government has promulgated regulations on penalties for administrative violations in health statistics and the Ministry of Health has issued a directive on strengthening health statistical information and the plan for development of the health management information system to the year 2020, with a vision to 2030. The Ministry of Health continues to improve and diversify information dissemination in various forms. Materials for training in basic health information are being standardized. Localities have used funds from the state budget and sponsors to implement training on basic health statistics for statistics workers at lower levels. The health sector is developing a databases of medical practitioners nationwide.

2.5.2. Difficulties, shortcomings

Demands of information users for monitoring, assessment and research on health are not being met. Regulations on dissemination of health statistics and databases are inadequate. Dissemination of health information suffers severe delays and the amount and forms of information are inadequate. Information from private health facilities and medical care facilities under other sectors is limited. Surveys assigned to the health sector by the Government have not been carried out due to a shortage of funds. Health statistics databases and national health databases remain inadequate.

There are not yet regulations on positions, titles, and statistical norms for statistics units in the health sector. The capacity of statistics and planning staff to synthesize reports, use and analyze data, and forecast health statistics remains weak.

Data is manually processed and aggregated at the district and lower levels. Application of information technology remains limited. There is not yet data aggregation software for commune health stations to report to higher levels. The coding of health facilities and professional standards needs to be completed in order to create conditions for the uniform application of information technology.

2.6. Health service delivery

2.6.1. Achievements

Preventive and primary health care activities are being implemented on a large scale. Recently, the health sector has focused on strengthening the health network in maritime areas. Population and family planning activities have been carried out effectively. Many localities achieve the targeted fertility replacement rate. Population growth has slowed and safe delivery to reduce the maternal and child mortality rate is being implemented widely. The number of medical care facilities providing traditional medicine services and the proportion of patients using the services has increased considerably. The Ministry of Health has updated many new technical procedures and extended use of many medical technologies to the grassroots level with reimbursed from the health insurance fund. The Ministry of Health is also implementing some models of chronic disease management and providing guidelines on piloting the Family Medicine model and a health care model for the elderly.

Many legal documents and policies guiding management of health service quality and reducing hospital overcrowding have been developed and implemented such as guidelines on quality control of laboratory testing, management of health care quality in hospitals and commune health stations, the project of reducing hospital overcrowding, the satellite hospital

project, the Family Medicine project, and Project 1816. In May 2014, there was generally no overcrowding in provincial and district hospitals. However, doubling or tripling up in hospital beds was still evident in some central hospitals. Quality monitoring tools have been developed and piloted. Schools and training centers for hospital management have been established and thousands of hospital management staff have been trained.

2.6.2. Difficulties, shortcomings

The targets for controlling some infectious diseases, such as reducing tuberculosis and halting HIV/AIDS, have not yet been achieved. The food hygiene and safety program remain unsustainable. Funds and health human resources for effective implementation of school health programs are still inadequate. The proportion of patients using traditional medical services remains low due to limitations in various regulations on these services. Regarding population-family planning, high fertility rates are still evident in some poor areas. The targets for reproductive health have not all been achieved. The sex ratio at birth has risen beyond the cap set out in the 5-year plan.

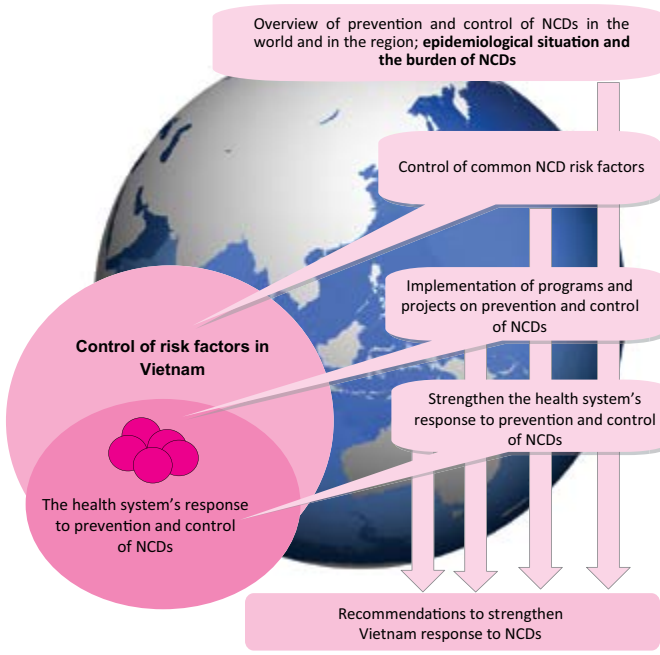
The quality of medical services remains poor. Overcrowding in tertiary hospitals, mainly in central hospitals, has not yet been resolved since patients are not confident in the quality of treatment at lower level facilities. Limitations in regulations on providing high quality medical services for those who can afford to pay in state hospitals, and in public-private partnership hospitals have not controlled over-prescription of drugs, laboratory tests and expensive technical services. Curative and preventive care services are not yet integrated. Health service provision remains imbalanced and lacks a linkage between levels. There is not yet continuity of care. Capacity of the district and commune level remains limited, especially capacity for management of chronic diseases. The Ministry of Health has not yet established an independent quality accreditation agency. Hospital regulations have not been updated since 1997 and the Ministry of Health has not provided official guidelines on the provision of many technical services. The demand for training on hospital management and quality management is not yet satisfied.

2.7. Implementation of the health-related MDGs

Although Vietnam has achieved or is capable of achieving most of the MDGs, there are still some goals that require greater efforts. By the end of 2013, the MDGs that had been achieved include reducing child malnutrition, reducing malaria prevalence and mortality rate, and increasing access to safe water and improved latrines. Some goals such reducing the infant mortality rate, improving access to antiretroviral drugs for HIV patients, and reducing tuberculosis prevalence are achievable if current rates of progress are ensured. Some indicators have shown improvements, including increased access to universal reproductive health (evident in the proportion of women receiving antenatal care, assistance at delivery by a skilled birth assistant, contraceptive prevalence rate and adolescent birth rates) and the increase in the proportion of female sex workers using condoms when having sex with their clients. Some goals will be hard to achieve by 2015 such as reducing the under-five mortality rate. Worrying trends include the slow increase in use of condoms among people who inject drugs and the recent decline in the proportion of children with HIV/AIDS who are receiving ARV therapy. Information is unavailable for measuring progress in achieving reductions in maternal mortality ratio.

PART TWO: STRENGTHENING PREVENTION AND CONTROL OF NON-COMMUNICABLE DISEASES

Analytical framework of NCDs in JAHR 2014



III. Overview of NCD prevention and control globally and epidemiology of NCDs in Vietnam

1. Prevention and control of NCDs globally and in Western Pacific region

1.1. The burden of NCDs

NCDs are a global challenge and causes a huge burden for the whole society and the health care system in high-income countries, as well as in middle- and low-income countries. Some 65.5% of the 52.7 million deaths worldwide in 2010 were from NCDs, an increase of 30% compared to 1990, mainly due to population growth and aging. Five of the 10 common causes of death and three of 10 causes of premature death worldwide are attributed to NCDs. It is estimated that the share of mortality attributed to NCDs will increase by 15% in the period from 2010 to 2020, equivalent to approximately 44 million deaths. The highest NCD share of total mortality is projected to be 20%, in Africa, Southeast Asia, and Eastern Europe.

The burden of mortality and disability caused by NCDs has increased considerably in recent years in most areas of the world. NCDs accounted for 54% of the total global burden of disease in 2010 and 55.1% of the total burden of disease in 2012. In most countries, except for those in Sub-Saharan Africa, at least 50% of the total number of years of life lost will be due to NCDs. The proportion of DALYs attributed to NCDs in middle and low countries is expected to increase from 33% in 2002 to 45% in 2030.

NCDs cause a huge financial burden, which continues to increase in middle- and low-income countries, causing a heavy burden on the macro-economy. NCDs can impede achievement of the MDGs and affect socio-economic development. NCDs are a problem for national development, not just a health problem.

Four main groups of NCDs have four common behavioral risk factors, including tobacco smoking, harmful use of alcohol, unhealthy diet, and physical inactivity. These risk factors can be prevented through effective intervention strategies such as 'best buy' interventions recommended by WHO.

1.2. Global and regional policies on prevention and control of NCDs

International organizations such as the UN and WHO have issued many legal documents and policies in response to the growing global influence of NCDs. These policies emphasize the importance of controlling risk factors and promoting healthy lifestyles. Among these are two important documents, including the WHO Global Action Plan for the Prevention and Control of NCDs 2013 and the Mental Health Action Plan 2013–2020. The WHO Western Pacific Region has also developed some important strategic documents on NCDs and mental illness such as the regional strategy for mental health since 2002 and the West Pacific Regional Action Plan for prevention and control of NCDs 2014–2020.

General principles of global and regional strategies on prevention and control of NCDs include national action, international solidarity, and multi-sectoral collaboration based on a human rights approach and evidence-based strategies, linked with universal health care.

WHO recommends member states to select policies and cost-effective interventions to achieve the goals of NCD prevention and control. Measures are divided into the following groups: (i) strengthening priority and capacity for prevention and control of NCDs; (ii) monitoring and research; (iii) controlling risk factors; and (iv) strengthening the health system to response to NCDs and mental illness.

2. The burden of non-communicable diseases in Vietnam

2.1. The disease burden

NCDs are growing rapidly in Vietnam. The NCD share of total deaths in the country rose from 56% in 1990 to 72% in 2010. Among total deaths from all causes, cardiovascular disease accounted for 30%, cancer for 21%, chronic respiratory diseases 8%, diabetes 3%, and mental illness 2%.

Some 56.1% of years of life lost (YLL) in 2010 were attributed to NCDs, with 35.1% among males and 29% among females. The highest YLL was due to cancer, with 19.2%, followed by stroke with 10.3%. Approximately 25.5% of total YLL are due to NCDs that receive

interventions while the remaining 30.6% are caused by NCDs for which direct intervention programs are not yet implemented.

Generally, NCDs caused 66.3% of total DALYs in 2010. Cancer and stroke are the two diseases causing the highest disease burden in terms of DALYs, accounting for 11 % and 5.8% respectively. It is noteworthy that NCDs for which national program interventions are in place are estimated to cause only 19.6% of total burden of disease in 2010. Few intervention programs are in place to reduce the burden of diseases caused by other NCDs.

2.2. Risk factors

Tobacco smoking

There has been a decline in smoking in Vietnam, but smoking prevalence remains high. In 2010, smoking prevalence, including pipe tobacco, among those aged 15 and older was 47.4% in men and 1.4% among females. Vietnam is among 15 countries that have the highest number of smokers in the world, with approximately 15.3 million adult smokers. Adolescent smoking prevalence remains high and adolescent smoking starts at an earlier age.

According to 2010 estimates, cigarette smoking caused 16.9% of total deaths, equivalent to 74 710 deaths, and 8.8% of the total burden of disease measured in DALYs. 97% of total deaths and 94% of total DALYs related to cigarette smoking was caused by NCDs.

Harmful use of alcohol

Consumption of alcohol per capita has increased rapidly. Annual consumption of alcoholic beverages by people aged 15 years and older increased from 3.8 liters in the period 2003–2005 to 6.6 liters from 2008–2010, with an average of 12.1 liters per year among males and 0.2 liters per year among females. The average beer consumption per capita in 2013 is estimated at 35.6 liters. Vietnam ranks the 1st in ASEAN and the 3rd in Asia in term of consumption of alcohol. On average, Vietnamese people spent nearly 3 billion USD per year , accounting for 1.8% of GDP on alcohol consumption.

An estimated 4.4% of Vietnamese people suffer from health problems as a consequence of use of alcohol. In 2010, an estimated 8.7% of males and 0.9% of females aged 15 or suffered from alcohol-related disorders; 5.9% of males and 0.1% of females aged 15 years or older were dependent on alcohol. Alcohol caused 5.7% of total deaths and 4.7% of total disease burden measured in DALYs in 2010. Approximately three-quarters of the burden of disease related to alcohol is caused by NCDs.

Unhealthy diet

Although there have been improvements in nutrition, there are some worrying patterns related to diet, especially NCDs. For example, average daily salt intake per capita amounted to 18-22 grams, 3-4 times higher than recommended levels. The proportion of those who eat less than five servings of fruits and vegetables each day is quite high, with 77.1% in urban areas and 83.7% in rural areas respectively while consumption of meat is higher and consumption of seafood is lower than recommended levels.

Imbalanced diet is a dominant feature of some regions and population groups, specifically excess energy consumption in children, overconsumption of trans fatty acids and saturated fats among students and urban residents and some groups of office workers. Meanwhile,

consumption of fruits and vegetables is lower than recommended amounts. People tend to select increasingly less healthy foods such as instant noodles and sugar-sweetened beverages. It is estimated that the burden of disease attributed to unhealthy diet in 2010 caused 23% of total deaths and 9.5% of total DALYs.

Physical inactivity

The proportion of people participating in regular exercise and sports is increasing, however the figure for 2013 was only 27.2%. The proportion of people getting sufficient physical exercise decreases by age and the percentage of females getting sufficient physical exercise is higher than males in all age groups. A survey shows that 34% of people do not participate in any physical activity with the main reasons as follows: no time 84%, reluctant to get up early for exercise 9%, and lack of sport facilities and spaces 2%.

Physical inactivity is an underlying cause of 2.8% of total deaths, equivalent to 12 648 deaths, and 1.5% of DALYs according to 2010 estimates. It is noteworthy that the burden of disease attributed to physical inactivity is only attributed to NCDs, especially cardiovascular disease, colon cancer, and diabetes.

Physiological risk factors

Hypertension is estimated to have caused 91 560 deaths in 2010 in Vietnam, accounting for 20.8% of total deaths and 7.2% of total DALYs, mainly due to stroke and ischemic heart disease. High blood cholesterol caused 1.4% of total deaths and 0.7% of total DALYs. Elevated fasting blood glucose and diabetes caused 6.3% of total deaths and 3% of total DALYs. Overweight and obesity were associated with 1% of total deaths and 0.9% of DALYs.

2.3. Economic burden attributed to NCDs and risk factors

Not only do NCDs cause a high burden of disease, but they also cause a considerable financial burden on the economy through direct costs that include direct spending on the treatment of NCDs and indirect costs due to the loss of productivity or income or sales of assets to pay for medical treatments, affecting not only the health system but also socio-economic development.

Total health costs and loss of productivity caused by three smoking- related diseases in Vietnam in 2005 was estimated to be at least 1.16 trillion VND or approximately 77.5 million USD. The economic burden caused by five group of smoking-related diseases including lung cancer, stroke, ischemic heart disease, chronic obstructive pulmonary disease, respiratory and upper gastrointestinal cancer 2011 was estimated at 23.14 trillion VND, accounting for 0.91% of GDP and 5.07% of health spending.

IV. Control of common NCD risk factors

1. Achievements

Control of risk factors is one of three main groups of measures recommended by WHO to control and prevent NCDs globally. Four risk factors receiving special attention include tobacco use, harmful use of alcohol, unhealthy diet and physical inactivity. In Vietnam there are many interventions related to these factors, with different levels of effectiveness.

1.1. Tobacco control policies

Policies on prevention and control of the harmful effects of tobacco are relatively complete, including the Tobacco Control Law, the National Strategy to prevent and control the harmful effects of tobacco by 2020, and legal documents guiding implementation of the law and strategy. Tobacco control policies include four highly effective interventions recommended by WHO, including: (i) increase tobacco taxes and impose special consumption tax on tobacco; (ii) enforce a comprehensive ban on advertising, promotion and sponsorship of tobacco; (iii) warnings about the harmful effects of tobacco; and (iv) protection of people from exposure to secondhand smoke. Other policies include banning purchase and sale of tobacco to persons under 18, establishing a National Fund for Prevention and Control of Harm from Tobacco, and developing guidelines for smoking cessation therapy.

1.2. Policies on control of harmful use of alcohol

The national policy on the control and prevention of the harmful use of alcohol to 2020 has been issued and the Law on alcohol control is being developed. Policies on control of harmful use of alcohol include three optimal interventions recommended by WHO, specifically: (i) increase taxes on alcohol; (ii) limit access to retail sales of alcohol; and (iii) ban advertising of alcoholic products. Other policies include planning the production of alcohol, controlling alcoholic beverage imports, developing food safety standards for alcohol; stipulating penalties for violations of the production and sale of alcohol, promoting IEC about the harmful use of alcohol, and providing guidelines on detoxification for alcoholics.

1.3. Policies on encouraging healthy diet

The National Strategy on Nutrition for the period 2011–2020, with a vision to 2030 includes goals for NCD prevention and control through healthy diet such as control of overweight, obesity, and blood cholesterol. The Ministry of Health has issued and implemented IEC on "Ten recommendations for proper nutrition", established the nutrition-medical diet department in hospitals, and provided training for nutrition staff. The Ministry of Education and Training has also included nutrition education in kindergarten curriculum. Some big cities have developed projects on cultivation and consumption of safe vegetables. The Ministry of Finance is recommending imposition of an excise tax on carbonated soft drinks.

1.4. Policies on promoting physical activity

Some policies on encouraging physical activity have been developed, including the campaign "All people imitate the example of Great Uncle Ho of doing physical exercises" and Project 614 on improving the stature of Vietnamese people. Many ministries, sectors and localities have developed projects and plans to strengthen physical education and sports training. Many health IEC programs on Channel O2TV broadcast important messages about healthy lifestyles in order to help people to protect and improve their own health, including through physical activity. Some new urban areas are planned to ensure compliance with regulations on allocating space for parks, recreation areas, and sport centers, and planting trees. Many private fitness and sports centers have been set up.

2. Difficulties, shortcomings

2.1. Policies remain inadequate, incomplete and limited

There are currently no policies or national strategies to encourage healthy diet and promote physical activity, especially to control common NCD risk factors. Current policies focus on Ministry of Health as the key player, when other ministries must also be involved. Nutrition policies still concentrate on prevention of malnutrition whereas policies on physical activity pay greater attention to competitive sports training activities rather than exercise for health for all.

The Law to control harmful use of alcohol is not yet completed. Only the strategy to control the harmful effects of alcohol to 2020 is being implemented, which has limited scope for regulation. There are no regulations limiting hours and places where alcohol is allowed to be sold. Policies on banning sales of alcohol to intoxicated persons are not yet in place.

Tobacco control policies still have some shortcomings such as tobacco tax being too low to affect retail tobacco prices to the extent that they deter consumption. Regulations on penalties for violations in tobacco control are still hard to implement.

Collaboration between ministries and sectors in formation of policies such as increasing excise taxes on alcohol and tobacco, planning production and sales of tobacco and alcohol, planning traffic, schools, and urban areas in order to prevent and control NCDs still faces difficulty.

2.2. Collaboration in implementing policies remain ineffective

Ministries, sectors, agencies, labor unions, and localities mainly concentrate on developing plans and organizing IEC rather than on monitoring and assessment of policy implementation as well as inter-sectoral collaboration. The main reason for this is lack of a focal point that is capable of and authorized to coordinate inter-sectoral activities for integration of prevention and control of common NCD risk factors. In addition, there is not yet a mechanism to encourage active involvement and tight collaboration between ministries, sectors, localities, agencies, and mass organizations in prevention and control of NCD risk factors.

Violation of regulations on control of NCD risk factors is still common, for example, violation of tobacco advertising at the point of sale, smoking in offices and public places, selling tobacco and alcohol to persons under age 18, food safety in artisanal production of alcohol, and use of alcohol during working hours. The main causes of violation are peoples' low awareness of the harm of risk factors, lack of knowledge about policies on controlling risk factors and low compliance with regulations, while inter-sectoral collaboration in inspection, monitoring and imposing penalties for violation has not been effective.

There is not yet an integrated system and a focal point for monitoring of common NCD risk factors, or a periodic reporting system with adequate monitoring indicators. Funds for conducting periodic surveys are inadequate. According to surveys carried out at different scales, monitoring of NCD risk factors remains limited (see Chapter III).

3. Priority issues

- Policies on control of NCD risk factors remain incomplete and limited.
- There is not yet a focal point or an effective mechanism for inter-sectoral mobilization and collaboration in implementation of policies on control of NCD risk factors.
- There is not yet a system of monitoring and assessment of risk factors and implementation of prevention and control of NCD risk factors.
- People's awareness and practice of control of NCD risk factors remains limited.

V. Implementation of the NCD prevention and control programs and projects

1. Achievements

Four projects on the prevention and control of NCDs, including hypertension, diabetes, cancer, COPD and asthma and the project for protection of mental health in the community and among children are components of the national health target program to the year 2015. Major achievements of these projects in recent years are as followed:

- The projects are increasingly scaled up at three levels, including the provincial, district and commune level.
- Health education and mass communication is increasingly implemented in various forms
- Provide training and strengthening professional capacity for a great number of health workers at all levels
- Provide passive screening for those at risk in the community at different scales.
- Develop and strengthen the network of screening, diagnosis, management of treatment at all levels.

2. Difficulties, shortcomings

- There is not yet a model, a focal point or a mechanism for integration of project activities. Projects are implemented vertically, lack linkages among each other and do not involve ministries, sectors and organizations outside of the health sector. There is not yet a system of monitoring of NCD prevention and control activities.
- The scale of projects, both in terms of geographic and population coverage, remains narrow and has expanded only slowly. The project on prevention and control of COPD and asthma is only implemented in 25 provinces and cities. The cancer registry is implemented in 9 provinces, covering 20% of the population. Other projects cover 63 provinces, however, the share of districts and communes involved in these projects remains low. Distribution of project coverage is still inappropriate as projects are mainly concentrate in big cities.
- Capacity for implementation of projects remains weak due to a shortage of health workforce at all levels, especially the grassroots level. Counseling, screening, diagnosis, and management of treatment is only implemented at the provincial level.

Specialized units are either incomplete in terms of the organizational structure, e.g. units needed for complete oncology departments, or lacking in essential medical equipment, e.g. COPD and asthma management units lack lung capacity measurement devices.

- Most projects pay more attention to treatment than prevention. Community screening is expensive, ineffective and hard to implement on a large scale, whereas screening programs involving people actively seeking screening services on their own after being informed of the benefits through IEC and opportunistic screening through regular medical care visits are not yet implemented. Counseling and screening are not yet reimbursed by health insurance.
- Funds for implementation of projects remain unstable and unsustainable. In recent years, funds for implementation of projects have been cut sharply, which forces projects to reduce scale and scope of operations.. It is likely that in 2015 no funds will be allocated from the state budget for implementation of these projects.
- Access to treatment drugs has been reduced because many projects have had to stop supply of drugs due to lack of funding, while drugs dispensed at project hospitals are not yet reimbursed by health insurance. Selection of the list of drugs for dispensing at the grassroots level remains inappropriate. Regulations on drug dispensing remain inappropriate because some of these diseases (e.g. hypertension) are not yet included in the list of chronic diseases allowing for dispensing of 1 month of drugs at a time. Drugs are not always available because of difficulties in the competitive tendering process for inexpensive drugs such as those for treatment of mental illness.
- Mental health is not yet integrated into prevention and control of NCDs. There is not yet a law on mental health.
- Content of counseling and IEC remains poor, unattractive, unspecific and hard to implement.

3. Priority issues

- Funds for implementation of projects have decreased sharply and are even at risk of being eliminated, resulting in cancelling of vertical programs, while their activities are not yet integrated into regular activities of the health system.
- No model has yet been developed for organization and direction of implementation of NCD prevention and activities in the coming years in which projects are integrated with each other and priority is placed on prevention and inter-sectoral involvement.
- Capacity for implementation of projects remains limited, especially at the grassroots level. Funding for implementation of models of community screening have been cut while the health workforce, medical equipment, IEC strategies for screening of NCDs at health facilities have not yet been ensured.
- Some regulations of health insurance do not meet special needs for examination and treatment of chronic diseases. For example, counseling and screening of NCDs are not yet included in the list of services covered by health insurance. Some essential drugs for treating NCDs are also not paid by health insurance. Some essential drugs for management of NCDs are not available at the grassroots level.

VI. Strengthen the health system's response to the prevention and control of NCDs

1. Health governance

1.1. Achievements

Policies and programs on prevention and control of NCDs, specifically projects on five diseases including cancer, diabetes, hypertension, COPD/asthma, and mental illness have been developed, promulgated and implemented in Vietnam.

1.2. Difficulties, shortcomings

Prevention and control of NCDs has not yet received adequate priority and political commitment commensurate with the burden caused by these diseases, and is not yet given a high priority in the socio-economic development plans of the Government and the Communist Party. There is not yet a comprehensive and long-term national strategy for prevention and control of NCDs that require involvement of the government and the whole society. The organization and direction of prevention and control of NCDs does not guarantee inter-sectoral participation, integration between NCD prevention and control programs, or linkage with other health care tasks.

There is not yet a comprehensive strategy for the prevention and control of NCDs, therefore, policies on controlling risk factors remain inadequate. The NCD prevention and control programs just cover 5 groups of NCDs, of which the disease burden accounts for approximately one third of total burden attributed to NCDs in Vietnam.

The organization and management of NCD prevention and control is incompatible with the principle of involvement of the government, society and multiple sectors. The NCD prevention and control programs and projects are fragmented and lacking in integration between programs as well as integration with general operation of the health system.

Investment in research activities on prevention and control of NCDs are not commensurate with the burden of NCDs. Research on NCDs remains inadequate and cannot satisfy demand for formulation and selection of evidence-based policies on the prevention and control of NCDs.

2. Health human resources

2.1. Achievements

The health workforce, including those involved in prevention and control of NCDs, continues to increase in size. There is no longer a severe shortage of health workers, except health workers specialized in mental health.

Health manpower specialized in NCDs benefit from incentive policies for health workers as well as incentives for some special fields. Health workers in the field of mental health are classified as the group receiving the highest priority remuneration.

Important contents related to NCDs are included in training curriculum for doctors and nurses. In addition to general basic nursing subjects, there are subjects on care for NCD patients

in the framework of university level nursing education. Many post-graduate training curricula in universities, institutes, and hospitals provide in-depth NCD knowledge and skills. Continuous medical education has been implemented in all NCD prevention and control projects of the national health target program.

2.2. Difficulties, shortcomings

Health workers specialized in prevention and control of NCDs are inadequate in number and quality. Health workers at commune health stations are not capable of management of NCDs and other chronic diseases. Deployment of NCD specialist health workers remains ineffective. There is no integration of tasks between health facilities within a level and at different levels, especially at the district level and below. Incentive policies for health workers and disadvantaged areas have been issued, however, there are still some limitations in the amounts and implementation.

There is not yet a mechanism to ensure uniform standards in quality of university training curriculum, particularly for medical students from disadvantaged areas with commitments to return and post-graduate medical training curricula. Thus, quality of new medical school graduates is not uniform. Training outcomes of projects and national target programs on prevention and control of NCDs remain limited. Continuous medical education for lower levels is provided separately for each disease. There is not yet integration in medical training. Training activities of some hospitals lack concentration and clear orientation.

3. Health financing

3.1. Achievements

The Government has allocated funds mobilized from the state budget, government bonds, and social mobilization for building, upgrading, and expanding oncology and cardiology hospitals. Funds from the state budget are still the main source of financial resources to ensure capacity building for health workers, disease screening, development of patient management models, IEC, monitoring and evaluation. The health insurance fund is an important financial source to support NCD examination and treatment services, including advanced technical services such as cardiovascular interventions, treatment of cancer by using radiotherapy and chemotherapy. Other financial sources for NCD prevention and control activities include funds from social mobilization for health, foreign aid funds and loans, and patient payments for medical services.

3.2. Difficulties, shortcomings

Funds for prevention and control of NCDs come from different sources that lack integration. Many NCD prevention and control activities are not yet reimbursed by the health insurance fund since health insurance does not cover preventive medicine or screening services. Capacity of the grassroots level remains limited. There are also some limitations in the list of drugs reimbursed from the health insurance fund.

Funds from the state budget for prevention and control of NCDs have been cut while the burden of NCDs is increasing. Limited financial sources for the prevention and control of NCDs have not been allocated or used to achieve the greatest effectiveness. That is because funds for

curative and preventive care are split and funds are mainly allocated for use by the higher level facilities. In addition, allocation of funds has not prioritized cost-effective interventions.

Provider payment methods do not encourage screening for early detection and early treatment for NCDs, nor do they provide appropriate incentives for health workers working in the area of NCD prevention and management (e.g. no encouragement to provide counselling). The existing financing mechanism and organization of the health system does not protect people from catastrophic health expenditure caused by NCDs

4. Drugs and medical equipment

4.1. Achievements

Most drugs for treatment of NCDs are included in the list of essential drugs and the list of drugs paid by health insurance. Drug price control is effectively implemented through bidding for procurement of drugs in state medical facilities. The list of medical equipment at all levels includes essential equipment for diagnosis and treatment of NCDs. The Ministry of Health has issued detailed guidelines on diagnosis and treatment for some NCDs.

4.2. Difficulties, shortcomings

There is not yet a policy on prioritizing use of and ensuring availability of generic drugs and essential drugs. The list of essential drugs for NCDs in communes and wards remains incomplete, especially diabetes medications, medications to treat COPD, and palliative care medications for cancer patients. Difficulties in access to drugs to treat NCDs are attributed to the following reasons: these drugs are not available in the health care facility network, especially in the commune health station; health insurance does not reimburse certain drugs that are supposed to be dispensed free-of-charge to patients through NTPs, even though budget cuts have forced NTPs to stop dispensing them; diabetes and hypertension are not on the MOH list of chronic diseases allowing dispensing of drugs up to 1 month at a time; few pharmaceutical manufacturers do not participate in the bidding for procurement of low cost drugs; and there is not yet collaboration between all levels. The list of standard medical equipment for commune health stations served by a doctor lacks some simple, essential medical equipment for implementing essential interventions to prevent and control NCDs.

5. Health management information and monitoring of prevention and control of NCDs

5.1. Achievements

The health management information system in Vietnam and health information sub-systems in hospitals have started to collect NCD data from hospitals. The cancer registry centers also receive data collected from hospitals. A national survey using STEPwise method has been carried out in Vietnam.

5.2. Difficulties, shortcomings

There is lack of updated, systematic, population-based information on changes of NCD risk factors, including behavioral and lifestyle risk factors and intermediate risk factors, and

on morbidity and mortality rates. Vietnam's monitoring and evaluation indicators of NCDs are not yet updated to be consistent with the WHO global NCD monitoring framework. Data and indicators of NCDs are collected from different sources and remain incomplete. Statistics on risk factors have not been integrated into the health statistics system. The civil registration system does not effectively record cause of death in the community. Quality and coverage of the cancer registry remains limited.

6. The service provider network for prevention and control of NCDs

6.1. Achievements

The network of medical facilities that provide diagnose and treatment of cancer, cardiovascular disease, endocrinology, tuberculosis and lung disease, and protection of mental health has expanded. Measures to strengthen capacity of the grassroots health care providers have been implemented. Counselling services, health education and IEC on prevention and control of NCDs have been implemented in various forms.

6.2. Difficulties, shortcomings

The health service delivery network is split and there is no integration between preventive and curative care and between different levels of health facilities, particularly between the commune and higher levels. There is little sharing of information about patients between levels. Continuity of care is not yet implemented. A patient-centered approach to prevention and control of NCDs is not yet ensured.

Essential, effective and feasible service packages for counselling, prevention, early detection, treatment and care for NCDs at the district and lower levels have not yet been defined. Distribution of responsibility for implementation of these service packages at the commune and district levels has also not yet been assigned.

The district and lower level facilities are incapable of providing essential services for prevention and control of NCDs due to limitations in professional capacity, drugs, medical equipment, and financial resources. Palliative care is not yet implemented at the grassroots level and in the community.

Limited health funds of some cities and provinces are spread too thinly as networks of specialized hospitals to provide treatment for NCDs, such as psychiatric hospitals, cancer hospitals, and tuberculosis and lung disease hospitals, continue to be expanded.

VII. Recommendations

1. Orient the health system to response to the current situation of diseases and risk factors

1.1. Develop appropriate strategies for priority disease groups

- Communicable diseases: implement vaccination programs, monitor epidemics, strengthen health IEC, implement screening for early detection and treatment to prevent spread of disease, address environmental factors.

- Accidents, injuries: Strengthen interventions to encourage people's compliance with the Law on Traffic Safety, including wearing helmets, not driving when intoxicated. Strengthen effectiveness of road emergency services.
- Non-communicable diseases: concentrate on prevention and control of risk factors and screening for early detection and effective management of NCDs.

1.2. Reduce regional disparities

- Develop appropriate strategies to reduce disparities in health measured by basic health indicators including life expectancy, infant mortality rate, maternal mortality rate, and child malnutrition rate. Ensure budget allocation priorities, develop cost-effective interventions appropriate with disadvantaged areas, and monitor and report on disparities to senior leaders to ensure accountability.

1.3. Control risk factors

- Develop a database of evidence of harmful effects of risk factors, encourage ministries and sectors to increase investment in implementing measures to reduce risk factors.
- Strengthen monitoring of risk factors such as tobacco smoking, harmful use of alcohol, unhealthy diet, physical inactivity, environmental pollution, and natural disasters. Monitor impacts of interventions on risk factors.
- Develop, adjust, and implement plans to response to risk factors on the basis of monitoring and assessment of impacts of interventions.
- Promote IEC to raise people's awareness and knowledge of risk factors and measures to respond to risk factors. Implement interventions to provide favorable condition for people to adopt healthy lifestyles.
- Develop and promulgate policies to ensure employers pay more attention to working environment and workers' health.

2. Implementation of the tasks set out in the 5-year health sector plan and the Millennium Development Goals

2.1. Strengthen management capacity of the health sector

- Improve capacity and quality of health strategies, policies and planning.
- Strengthen the role and capacity of the health sector for health management and planning.
- Strengthen, complete and stabilize health sector organizational structures from the central to local levels.
- Strengthen inspection, quality control and surveillance.
- Strengthen the participation of stakeholders in the policy-making process and in development and implementation of health plans.

- Promote appropriate social mobilization for health; encourage investment in health services from all economic sectors.

2.2. Health human resources

- Develop a health sector workforce of adequate size, ensured quality, balanced structure, and with a rational distribution to protect and care for the people's health.
- Continue to implement strategies for effective deployment of health workers.
- Continue to improve the quality of medical training establishments.
- Continue to strengthen management of continuous medical education.

2.3. Health financing

- Increase state public spending on health, increase public spending on health and reduce household out-of-pocket spending on health.
- Prioritize state budget allocations for preventive medicine, district and lower health facilities and primary health care; implement policies on social mobilization for health.
- Ensure sustainable development for health insurance.
- Continue to reform the operational and financial mechanisms of state health service facilities.
- Reform the provider payment methods.

2.4. Pharmaceuticals and medical equipment

- Ensure adequate essential drugs to serve treatment needs.
- Tightly control drug prices.
- Strengthen management of drug quality and safe and rational use of drugs.
- Promote development of traditional and herbal medicines.
- Strengthen domestic manufacturing of medical equipment.
- Improve infrastructure of health service facilities.

2.5. Health information system

- Complete policies and the comprehensive plan for the development of the health information system.
- Complete health statistics indicators, registers and reports for state and private health sectors.
- Strengthen the ability to meet needs of information and data users.
- Apply information technology in the health information system.

2.6. Health service delivery

- Revise and strengthen the grassroots health network.
- Promote preventive activities; effectively implement projects in the national health target programs.
- Complete policies, strengthen the service delivery network and effectively implement population-family planning and reproductive care activities.
- Improve the quality of health care services.
- Reduce hospital overcrowding.
- Strengthen hospital management capacity.
- Strengthen management of preventive medicine service quality.

2.7. Implementation of MDGs

Strive to implement 6 measures in Governmental Resolution No. 05/NQ-CP on promoting implementation of the MDGs for health, including:

- Raise awareness and strengthen the leadership of all levels of the Communist Party and government in the implementation the MDGs for health.
- Promote financial mobilization to implement the health-related MDGs.
- Strengthen international collaboration.
- Strengthen inter-sectoral collaboration and involvement of organizations and people in the implementation of the health-related MDGs.
- Effectively implement technical solutions in order to achieve the health-related MDGs.
- Consolidate and strengthen capacity of the health sector, especially the district and lower level facilities in mountainous, remote and isolated areas

3. Strengthen control of common NCD risk factors

3.1. Improve the legal system

- Strengthen capacity for policy advocacy.
- Gradually complete policies on control of common NCD risk factors.

3.2. Strengthen organization, direction and coordination of activities

- **Management agency**: Develop a model to unify management of risk factors through a focal point that is authorized to and capable of mobilizing participation of multiple-sectors and the whole society.
- **Coordination agency**: Develop an appropriate model of organization and strengthen capacity of coordination agencies for direction and coordination of risk factor prevention and control activities.

3.3. Monitor, supervise and assess risk factors

- Set up an effective monitoring system on risk factors and activities to prevent and control common NCD risk factors.
- Strengthen inspection and assessment of risk factor prevention and control activities.

3.4. Monitor implementation of regulations on controlling risk factors

- Promote health IEC as well as dissemination of regulations, e.g. on tobacco control.
- Strengthen inter-sectoral collaboration in inspection and imposing penalties for violations in order to raise people's awareness and practice for prevention and control of risk factors.

4. Implementation of the national health target programs on prevention and control of NCDs

4.1. Integrate programs into the health system

- Promote and integrate IEC on prevention and control of NCDs with other health IEC programs.
- Integrate services for management and treatment of NCDs into the health service delivery system, especially into the grassroots health network.
- Supplement the list of provider services reimbursed by health insurance with some services for prevention and control of NCDs, including counseling and screening for early detection of NCDs.
- Train and develop health workers for prevention and control of NCDs. Promote and diversify forms of training to improve knowledge of general practitioners, nurses, technicians, and pharmacists about prevention and control of NCDs at lower levels, especially the grassroots level. Provide training on cardiology, oncology, endocrinology, pulmonary disease, and mental illness.

4.2. The project on the prevention and control of hypertension

- Integrate the pilot model of hypertension screening into regular examination and treatment for those aged 40 or older;
- Provide treatment for hypertension at the grassroots level, especially commune health stations according to MOH Guidelines on diagnosis and treatment of hypertension (2010) for people who do not have complications. Develop professional procedures for detection, management and treatment of hypertension in commune health stations, and integrate these into the national commune health benchmarks.
- Focus management of hypertension on lifestyle changes, specifically, weight loss for overweight or obese people; smoking cessation; increased consumption of fruits, vegetables, and low fat dairy products, reduced consumption of saturated fat; reduced salt intake; increased consumption of potassium; participation in regular physical exercise; and limited consumption of alcohol.

- Consider and make adjustments to hypertension medications included in the list of drugs covered by health insurance at the commune level. Select hypertension medications on the basis of evidence of effectiveness and safety and regulations on longer period of drug dispensing for treatment of chronic diseases

4.3. The project on prevention and control of cancer

- Strengthen cancer registry and management; assess the effectiveness of the Action plan for cancer prevention and control. Promote epidemiological studies on prevention and control of cancer and complete the national data system for cancer.
- Continue to invest in construction of facilities for diagnosis and treatment of oncology at central and provincial levels; strengthen professional capacity through the Satellite Hospital project and technology transfer.
- Implement screening for early detection of cancer on a large scale for some types of cancer that can be detected early such as breast and cervical cancers. Develop guidelines, train health workforce, and consider necessary conditions to include cancer screening services in medical services paid by health insurance.
- Concentrate on cancer prevention activities such as smoking cessation, reasonable consumption of alcohol, limited use of solid fuel for indoor cooking, weight loss, increased consumption of vegetables, high fiber food and calcium, limit intake of beef, processed meat, sugar-sweetened beverages, and salt; and increase compliance with regulations on labor protection when working in hazardous conditions;
- Establish units that provide palliative treatment and care at existing cancer prevention and control facilities. Develop a model of care for late-stage cancer patients.

4.4. The project on diabetes prevention and control

- Concentrate on diabetes prevention activities such as smoking cessation, reduced alcohol consumption, weight loss, diet rich in whole grains and reduced consumption of red meat, processed meat, and sugar-sweetened beverages.
- Shift diabetes screening activities towards proactive screening and opportunistic screening that is integrated into the regular examination and treatment process. Implement diabetes screening at commune health stations that are capable of testing blood glucose levels.
- Complete the network of diabetes prevention and control, including diabetes treatment facilities and diabetes prevention facilities in the community.
- Develop and scale up nutritional counseling rooms for diabetes patients at hospital clinics and commune health stations.

4.5. The project on the prevention and control of COPD and asthma

- Strengthen prevention and management activities at the district and commune levels. Concentrate on prevention activities, such as smoking cessation, limiting use of solid

fuel for indoor cooking, compliance with labor protection measures when working in environments with particulates.

- Adjust and supplement the list of drugs reimbursed by health insurance for outpatient treatment of COPD and asthma at all levels;
- Equip the grassroots health facilities with standard pulmonary function monitors and bacterial filters to facilitate accurate diagnose and better management of patients. Equip the provincial level and some regional general hospitals to treat patients with respiratory failure with non-invasive ventilators and invasive ventilators.

4.6. The project on the protection of mental health in the community and among children

- Develop the National strategy on mental health for the period 2015-2020. The Ministry of Health should recommend that the Government and the National Assembly develop a Law on mental health that places emphasis on strengthening protective factors and reducing risk factors in communities, schools, families, and workplaces.
- Establish the National Steering Committee on Mental Health to strengthen leadership, management, and effective inter-sectoral collaboration on mental health.
- Develop and standardize training materials and training text books on mental health care and social care. Finalize development of standard professional and technical procedures for screening, diagnosis and treatment of mental disorders.
- Review the current financial mechanisms to ensure sustainable financing for mental health care from health insurance and the state budget.
- Provide social and mental health care services that are comprehensive, integrated, and community-based, especially mental health care services for children, women, the poor and victims of natural disasters;
- Develop and complete policies to shift care and treatment of some mental illness from specialized facilities that provide long-term treatment to non-specialized facilities and to the community.
- Develop a network of social workers and clinical psychologists to meet the needs for mental health care and social care.
- Conduct epidemiological research and a survey on mental disorders in Vietnam. Strengthen the system of information, evidence and research on mental health. Develop and implement the framework for monitoring and evaluation of strategy implementation.

5. Strengthen the health system's response to NCD prevention and control

5.1. Health governance

- Complete the organizational model for directing prevention and control of NCDs with involvement of representatives of relevant ministries, sectors, and social organizations

to strengthen inter-sectoral collaboration, to allocate funds, and to assign staff responsibility for direction and management of NCD prevention and control activities.

- Integrate NCD prevention and control activities into the grassroots health network. In the first stage, implement strategic plans for strengthening capacity of the health service provider system that centers on primary care in parallel with integration of components of vertical programs.
- Activities that can be integrated with NCD prevention and control programs in the first stage are IEC, continuing medical education to strengthen capacity, and screening for early detection.

5.2. Health human resources

- Appropriately deploy the health workforce for prevention and control of NCDs. Specifically, the grassroots health facilities should effectively implement primary care for prevention and control of NCDs. Higher levels should provide professional support and training, monitoring and intensive treatment. Increase incentives to encourage health workers at the grassroots level.
- Strengthen continuing medical education activities; integrate these activities into the national target programs, projects, agencies in accordance with the needs of each level; monitor the quality of continuing medical education; determine clear outcome objectives. Prioritize training of grassroots health workers, coordinate training with post-training support and supervision.
- Develop incentive policies to encourage grassroots health workers to attend continuing medical education courses, strengthen training and continuous support in the workplace for village health workers. Implement measures, such as time limits on medical practice certificates, skill examination requirements for issuing certificates and mandatory continuing medical education participation for recertification, to compel health workers to participate in continuing medical education.
- Provide professional development support for health workers in the field of NCD prevention and control at the workplace, for example, through technology transfer and the satellite hospital project.

5.3. Health financing

- Increase funding for NCD prevention and control activities from the state budget, health insurance funds and the national fund for tobacco control.
- Revise Joint Circular No. 09/2009/TTLT-BYT-BTC dated 14 August 2009 guiding implementation of health insurance in order to adjust allocation of health insurance funds appropriate with the needs for care and treatment of NCDs at commune health stations.
- Place high priority on allocating funds for preventive medicine, health promotion, primary health care, and monitoring of NCDs.

- Revise the Law on Health Insurance and guidelines to expand health insurance coverage for services that meet the needs of NCD prevention and control. Determine basic service packages for NCD prevention and control on the basis of evidence of cost effectiveness.

5.4. Drugs and medical equipment

- Develop and standardize the list of NCD medications to revise the health insurance drug formulary, supplement the list of drugs reimbursed by health insurance with NCD medications needed to implement essential interventions in prevention and control of NCDs at the district and lower levels, taking into consideration WHO recommendations;
- Review regulations on competitive tendering for drug procurement, ensure appropriate measures for procurement of specific low cost drugs for hypertension and mental illness and rare drugs for cancer treatment to ensure availability of necessary drugs.
- Update the list of chronic diseases to facilitate prescription and dispensing of drugs for managing hypertension, diabetes and COPD.
- Adjust and supplement the list of standard medical equipment at commune health stations served by a doctor to implement essential interventions in NCD prevention and control, with reference to WHO recommendations.
- Supplement policies on drug access and priority use of generic drugs and essential drugs in the revisions to the Pharmaceutical Law.

5.5. Health information system for NCD surveillance

- Consolidate and refine the monitoring system for NCDs and risk factors: i) update monitoring indicators of NCDs and risk factors on the basis of the WHO monitoring indicator framework, ii) strengthen the hospital reporting system, particularly reporting on the situation of NCDs by age and gender, iii) train statistics staff and introduce appropriate incentive policies to improve the quality of the cancer registry.
- Consider monitoring of mortality in the community through mortality statistics in commune health stations, e.g. review the registry book on cause of death A6/YTCS, official forms, guidelines and procedures for reporting mortality, strengthen capacity of statistics staff and quality of statistics and recording at commune health stations in the period until the vital records system in the community is functioning.
- Conduct a survey on NCD risk factors by using STEPwise method in 2015.

5.6. Health service delivery

- Develop regulations on management, updating, exchange and storage of information on NCD patients in the health care network and between health service providers to satisfy the needs for continuity of care for NCD patients.
- Ensure conditions (in terms of health manpower, drugs, equipment, and financing) necessary for providing essential NCD prevention and control services, including palliative care.

- Strengthen capacity of general hospitals and integrate NCD prevention and control activities into provincial hospitals instead of building more specialized hospitals.
- Develop and implement the project of reform of health service delivery at the district level or lower with a primary care foundation, collaboration and integration of preventive medicine, health promotion, health care, and rehabilitation to ensure linkage and support between levels.
- Develop essential service packages for prevention and control of NCDs, including essential service packages for mental illness, for the district and commune levels in the period 2015–2020, in accordance with WHO recommendation.

Appendix: Monitoring and Evaluation Indicators

Monitoring Indicators	Unit	Year					
		2009	2010	2011	2012	2013	2015 target
Input and Operation Indicators (Health financing, Health human resources, and health infrastructure)							
Health spending as a share of GDP	%	6.6	6.36	6.20	5,97	..	..
Share of public spending on health of total health expenditure	%	42.2	46.55	45.23	42,56	..	≥50%
Per capital total health spending (current prices)	1000 VND	1263	1.579	1.963	2,184	..	..
Out-of-pocket share of total health spending	%	50.5	44.84	45.58	48,83	..	..
Number of doctors per 10 000 population	Doctor	6.59	7.2	7.33	7,46	7,5	8.0
Number of university-trained pharmacists per 10 000 population	Pharma-cist	1.77	1.8	1.9	1,96	2,01	1.8
Number of state hospital beds per population (excluding beds in CHS)	Hospital bed	20.8	21.7	22.5	23,5	24,2	23
Number of private hospital beds per 10 000 population	Hospital bed	0.68	..	..	1,1	1,1	..
Proportion of commune health station with a doctor	%	67.7	70.0	71.9	73,5	76,9	80

Monitoring Indicators	Unit	Year					
		2009	2010	2011	2012	2013	2015 target
Proportion of commune health stations with an obstetric/pediatric assistant doctor or midwife	%	95.7	95.6	95.3	96,4	97,3	>95
Proportion of villages with a village health worker	%	96.6	97.5	96.9	96,6	91,5	90
Proportion of communes meeting commune health benchmarks (data 2011-2012 mixed new and old benchmarks)	%	65.4 (2001-2010)	80.1 (2001-2010)	76.8	73,4	42	60 (2011-2020)
Ratio of retail pharmacies per 10 000 population	Retail phar-macy	4.9	5	4.6	4,4	4,5	..
Outcome Indicators (Access to health services; safe and quality)							
Number of visits per 10 000 population	Visit	3770	3980	3988	..	..	..
Number of inpatients per 10 000 population	Visit	1330	1370	1374	..	..	..
Average length of inpatient admission	Days	6.9	7.35	6.83	6,89	..	..

Monitoring Indicators	Unit	Year					
		2009	2010	2011	2012	2013	2015 target
Proportion of people with medical visits in the last 12 months	%	..	40.9	..	39,2	..	..
Outcome Indicators (Coverage, impact of interventions, risk factors and behavior)							
Proportion of pregnant women who have received antenatal care at least once every three months	%	..	79.2	86.7	89.4	84.5	80 (87*)
Proportion of pregnant women who have received full tetanus vaccination	%	93.7	93.5	94.6	95.5	95.7	..
Proportion of children under age 1 year who are fully immunized (with 7 types of vaccine in 2010 and 8 types from 2011-2013)	%	96.3	94.6	96.0	95.9	91.4	>90
Proportion of deliveries assisted by skilled attendant	%	94.4	97.1	97.2	97.9	97.8	96 (98*)
Proportion of women and newborns receiving postnatal care	%	89.2	87.8	87.2	87.3	87.9	85
Proportion of women aged 15-49 using contraceptive methods	%	..	78	78.2	76.2	77.2	70.1

Monitoring Indicators	Unit	Year					
		2009	2010	2011	2012	2013	2015 target
Proportion of the population covered by health insurance	%	58.2	60.3	65.0	66.4	68.5	70
Proportion of inpatients and outpatients covered by health insurance	%	..	66.7	..	72.1	..	..
Impact Indicator (health status)							
Average life expectancy: National (male/ female)	Age	72.8 (70.2/75.6)	72.9 (70.3/75.7)	73.0 (70.4/75.8)	73.0 (70.4/75.8)	73.1 (70.5/75.9)	74
Annual reduction in fertility		Up 0.9	Down 0.5	Up 0.5	Down 0.3	Up 0.1	Down 0.1
Total fertility rate	Children	2.03	2.00	1.99	2.05	2.10	1.86
Maternal mortality rate	Per 100 000 live births	69	..	..	..	..	58.3
Infant mortality rate	Per 1000 live births	16.0	15.8	15.5	15.4	15.3	14.8
Under-five mortality rate	Per 1000 live births	24.1	23.8	23.3	23.2	23.1	19.3
Tuberculosis detection rate (all types)	Per 100 000	114.1	113.9	114	113.9	..	..
Tuberculosis detection rate (AFB+)	Per 100 000	52.2 (59.6)	52.7 (60.0)	57.7	57.5	..	..
Tuberculosis cure rate AFB+ (DOTS)	Per 100 000	90.6	90.5	90.8	91.1	..	..
Proportion of smokers (age 18 or older)	%	..	47.4	..	..	..	..

Monitoring Indicators	Unit	Year					
		2009	2010	2011	2012	2013	2015 target
Proportion of households using improved latrine	%	48	51.4	71.4 (63%)	..	67	65
Proportion of households using improved drinking water	%	79	75	89.4 (90%)	..	94	85
Proportion of medical facilities whose medical waste is treated	%	74	..	..	..	..	80
Proportion of women aged 15-49 whose needs for family planning is not met	%	..	..	4.3	..	..	..
Dengue cases per 100 000 population	Per 100 000	12.2	14.8	16.1	..	..	..
Malaria detection rate	Per 100 000	70.8	62	51.6	49	..	<15 (2020)
Leprosy incidence rate	Per 100 000	0.04	0.04	0.04	0.03	..	0.2
Leprosy detection rate	Per 100 000	0.41	0.41	0.43	0.34	..	0.3
Population growth rate	%	1.06	1.05	1.04	1.06	1.05	0.93
Population	Million people	86.02	86.9	87.84	88.77	89.71	<93.0
HIV detection rate	Per 100 000	16.1	15.9	16.1	15.9	..	..
HIV/AIDS prevalence rate	Per 100 000	187	211.3	224.4	237.5	242.2	<300.0

Monitoring Indicators	Unit	Year					
		2009	2010	2011	2012	2013	2015 target
Food poisoning	Victims	5212	5397	4700	5541	5558	..
	Incidents	152	173	148	168	167	..
	Deaths	35	49	27	34	28	..
Malnutrition rate of children under age 5 (underweight)	%	18.9	17.5	16.8	16.2	15.3	15
Malnutrition rate of children under age 5 (stunning)	%	31.9	29.3	27.5	26.7	25.9	26
Sex ratio at birth	Boys/ 100 girls	111	111.2	111.9	112.3	113.8	≤ 113
Financial protection							
Proportion of people suffering from catastrophic health expenditure (total out-of-pocket household spending on health account for 40 % or higher affordability of households)	%	5.5 (2008)	3.9	..	4.2	..	..

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