The Ministry of Health

INVESTING AND INNOVATING FOR

GRASSROOTS HEALTHCARE SERVICE DELIVERY REFORM PROJECT

SOCIAL ASSESSMENT REPORT

HANOI 12-2018

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ABBREVIATION

HI	Health insurance
M&C	Mother and child
PHN	Primary health network
HF	Health facilities
NCD	Non-communicable disease
EM	Ethnic Minority
NHS	National health survey
E&T	Examination and treatment
SA	Social assessment
ANC	Antenatal care
FGD	Focus Group Discussion
CHS	Commune Health Station
MOH	Ministry of Health
PH	Primary healthcare
DOH	Department of Health
PC	People's Committee
WB	World Bank
WHO	World Health Orgnization

I. INTRODUCTION

1.1. The project background

Vietnam has made remarkable progress in health outcomes over the past 20 years and access to basic health services is good. Life expectancy increased from 72.1 to 75.8 years, and is the highest in the region for countries at a similar income level.[1] Between 1990 and 2015, the child mortality rate fell from 51 to 22 per 1,000 live births[2] and the maternal mortality ratio fell from 139 to 54 per 100,000 live births.[3] In 2014, the proportion of births assisted by a trained staff was 93.8%[4] and the proportion of pregnant women receiving 4 or more antenatal care visits was 73.7% [5]. In 2015, the nationwide full immunization rate was 97.1% and exceeded 95% in 53 out of Vietnam's 63 provinces[6]. In 2014, 7.5% of people (7.8% in rural and 6.7% in urban areas) had at least one inpatient visit, while 33.5% (32.9% in rural and 34.9% in urban) had an outpatient visit in the previous 12 months[7].

However, disadvantaged groups – and especially ethnic minorities (EMs) and those living in poor, remote and mountainous provinces – have substantially worse access and outcomes. In 2014, child mortality rates in rural areas (26.5 per 1,000 live births) was more than double those in urban areas (12.9); child mortality rates in the remote mountainous provinces exceeded 50 but were less than 20 in the delta provinces.[8] Similarly, while the national under-five stunting prevalence was 24.6%, it reached over 35% in some remote mountainous provinces.[9] Full immunization rates fall to as low as 70% among disadvantaged groups, such as EM children (69.4%), the poorest quintile (72.2%), and those in mountainous provinces (such as the Central Highlands, 70.5%, and Northern Midlands and Mountains, 71.%)[10]. The proportion of births assisted by a trained staff was 68.3% among EM women and 73.4% among the poorest quintile, compared to over 95% among women in the remaining quintiles. [11] The proportion of pregnant women having 4 or more prenatal care visits was only 32.7% among EMs and 38.6% among the poorest quintile, but rose to 67% in the second poorest quintile and to 96% in the richest quintile.[12]

Population ageing, a disease burden increasingly dominated by non-communicable diseases (NCDs), and a growing middle class will present a new set of challenges to the health system. The multiple transitions – demographic, epidemiological, health financing – through which Vietnam is going, coupled with a shift towards more horizontal integration of care, could pose some risks to the sustainability of essential public health services. In this context, the Ministry of Health (MoH) and the World Bank are preparing the *Investing and Innovating for Grassroots Service Delivery Reform Project* to improve the efficiency of the grassroots health system.

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1 World Development Indicators 2017.

2 UN Inter-Agency Group for Child Mortality. 2015. Estimation. Levels and Trends in Child Mortality Report 2015. New York. UNICEF.

3 Alkema, Leontine, et al. 2016. "Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group." The Lancet 387.10017 (2016): 462-474.

4 GSO and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey 2014, Final Report. Ha Noi, Viet Nam.

5 GSO and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey 2014, Final Report. Ha Noi, Viet Nam.

6 These estimates are from administrative data. By contrast, household survey data show a full immunization rate of 82.4% (Multiple Indicator Cluster Survey 2013/14)

7 GSO, 2014. Result of the Vietnam Household Living Standards Survey 2014. Hanoi: Statistical Publishing House. 2016.

8 GSO, 2016. Statistical Yearbook of Vietnam 2015. Hanoi: Statistical Publishing House. (Table 35).

9 National Institute of Nutrition. 2016. Statistical data on child malnutrition 2015. http://viendinhduong.vn/news/vi/106/61/0/a/so-lieu-thong-ke-ve-tinh-trang-dinh-duong-tre-em-qua-cac-nam.aspx.

10 GSO and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey 2014, Final Report. Ha Noi, Viet Nam.

11 GSO and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey 2014, Final Report. Ha Noi, Viet Nam

12 GSO and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey 2014, Final Report. Ha Noi, Viet Nam

1.2. Higher Level Objectives to which the Project Contributes

The project will support the GoV in the strengthening and reform of PHC, which is a major strategic direction for the health sector. It will contribute to the realization of various of the government's PHC-related strategies and plans such as the Grassroots Masterplan, the Masterplan for Reducing Hospital Overcrowding, various disease-specific strategies (for example, for reproductive health and for NCDs), and on-going reforms related to the benefit package and health financing arrangements. Through investing in grassroots infrastructure as well as the scope and quality of CHS services, the project will help ensure readiness to shift service delivery from hospitals down to lower-cost facilities, increase the utilization of closer-to-home PHC services (especially for NCDs) on a timely basis and, thus, lower health care costs and increase the financial sustainability of the health system.

1.3. Project development objectives

In order to enhance overall health system efficiency, the project development objective is to improve the quality of the commune health system in the targeted provinces, including to take on a new role in the management of selected NCDs while maintaining historical strong performance in services related to maternal and child health (MCH) and infectious disease.

1.4. Project specific objectives

This project aims to strengthen the quality and efficiency of the grassroots (district and commune) health system in the project provinces. The grassroots system should be the foundation of the health care system, providing essential primary care (primary and secondary prevention) to the population. Right now, care provided at this level is often of inadequate quality and patients frequently bypass this level, resulting in an efficient service delivery structure that is overly hospital-centric**.** The project aims to improve the quality and efficiency of the grassroots system by enabling the CHS to take on a new role in managing non-communicable diseases (including hypertension, diabetes, and cervical cancer), while strengthening their existing role in managing infectious disease (including through immunization) and providing maternal and child health services.

Family medicine principles, which emphasize continuity of care and collaboration among different levels, will guide service delivery. Family medicine principles now form the basis of training for grassroots health professionals in Vietnam. In line with these principles, the project will seek to build stronger teamwork within facilities, horizontal integration across services, and vertical integration of service delivery across commune (health center) and district (hospital) levels. One example is having the commune level play a role in ensuring that children who are not born in facilities (hospitals) also get birth doses of vaccines. Another example is combatting the spread of drug-resistant TB by setting up a system whereby samples can be transported from commune-level to district hospital-level for MDR-TB testing.

1.5. Beneficiaries of the project

The project is pro-poor in terms of geographic scope. It will be implemented in 12 disadvantaged provinces, as well as 2 "frontrunner" provinces which were selected for their capacity to implement more ambitious reforms and innovations. Transparent, pro-poor criteria were used to identify the project provinces. First, exclusion criteria eliminated (i) the provinces that will be covered by the Asian Development Bank's (ADB) grassroots health project and (ii) the five major municipalities/cities because they are economically better off. Second, inclusion criteria were applied, namely that (i) at least two-thirds of project provinces should be among the poorest provinces (using the multi-dimensional poverty indicator), (ii) the provinces should represent the three main regions of Vietnam, and (iii) the provinces should be willing and able to participate in the project (which

includes accepting the on-lending ratios applied by the MOF and not have exceeded their provincial debt ceilings). The 12 disadvantaged provinces are Ha Giang, Bac Kan, Son La, Yen Bai, and Hoa Binh (in the north), Quang Binh, Quang Tri, Quang Ngai, and Ninh Thuan (in the central region), and Tra Vinh, Hau Giang and Bac Lieu (in the south). The two frontrunner provinces are XXX (central region) and Long An (in the south). All but one of the project provinces have poverty rates above the national average, 5 of the project provinces have poverty rates exceeding 2.5 times the national average. Within the selected provinces, the project will prioritize investing in CHS located in rural, remote communes (zones 2 and zones 3) that have not met the national CHS benchmarks.

The project will benefit all population groups in the selected project provinces, but children, women, the elderly, the poor and ethnic minorities are expected to benefit more than others. This is both because of the nature of the project interventions and the geographic location of the project provinces. Looking across the life-cycle and by gender, the grassroots health system tends to be used mainly by women of child-bearing age and young children (because the CHS have historically focused on reproductive and child health services), and also by the elderly (because the CHS are located within the community and are convenient and inexpensive for older people with limited mobility and financial means to use). That said, by expanding the CHS's role to also include the management of NCDs, the project will likely also lead to increased utilization of CHS by men (and even more elderly people) than before, thus helping to reduce the gender gap in utilization of basic CHS-level primary care services. The project will also disproportionately benefit EM populations, both because the targeted project provinces have higher concentrations of EM populations than most other provinces and because ethnic minorities tend to use the CHS for a greater share of their outpatient health visits than do the majority Kinh or Hoa population. Finally, the criteria for selecting project provinces, for selecting communes within project provinces, and the fact that poor people are more likely to use CHS services than better off people ensures that the project will be strongly pro-poor. Evidence for the utilization patterns described can be found in household surveys of health service utilization.

1.6. Project components

The project is financed by a combination of an IDA loan, various grants (from multilateral development partners, bilateral development partners, and the private sector), and counterpart financing, with a total value of 118 million USD. The project will include three components:

Component 1: Ensure service availability through improving the CHS infrastructure: This component will improve the quality of CHS infrastructure in the project provinces so that the CHS meet the national standards for CHS infrastructure. Targeted CHSs will be upgraded through either new construction, expansion, or renovation to a level that is sufficient to reach the infrastructure standards of the "commune benchmarks"[13] set by the MOH in 2002[14]. Within each province, the specific CHS targeted for investment will be based on provincial plans and complemented by a set of criteria that will help to improve the efficiency and equity of project investments.

Component 2: Ensure that facilities are equipped to deliver the tracer conditions and improve the quality of care provided: This component will support the equipment, training and other "soft activities" needed for the CHS, with the support of the DH/DHC, to manage the tracer conditions and improve the overall quality of care delivered. Essential equipment will be procured to enable the CHS and DHC to manage the tracer conditions. In addition, for child health (immunization), the component will also support improvements in the vaccine cold chain and, in so doing, leverage

[13] The commune benchmarks include items related to infrastructure, equipment, and investment. Consequently, the reason that a particular CHS has not reached the benchmarks could be due to inadequacies in infrastructure, or equipment, or human resources.

[14] If new standards are approved by CHS, then these will apply to the project sites.

further support from GAVI. For tuberculosis (TB), the project will also help to combat the threat of Multi-Drug-Resistant (MDR)-TB by increasing the availability of GeneXpert testing at the district level. This component also seeks to improve the competencies of grassroots health workers to provide services associated with the tracer conditions, in line with the principles of family medicine. The project will support the implementation of quality scorecards as an intervention to monitor and improve quality of care.

Component 3: Creating an enabling policy environment, piloting innovations, evaluation and project coordination

The project will organize its support around select "tracer conditions". These "tracer conditions" represent priority diseases or conditions that can be detected and treated at the commune level in line with the principles of family medicine, while also providing selective support to the district level to improve the vertical integration of care. The five tracer conditions which will be at the core of the project's activities include hypertension (new CHS role); diabetes (new CHS role); cervical cancer (new CHS and DHC role); Immunization and other early childhood interventions (existing CHS role); and Tuberculosis (existing CHS role). The project will operationalize interventions related to the tracer conditions in all project provinces, but not all provinces and districts will necessarily implement all tracer conditions related to the new role of the CHS. All participating project provinces and their districts will implement activities related to strengthening their existing roles. All project provinces, but not necessarily all of their districts, will take on the new role of managing hypertension and diabetes (within the project period). At least a sub-set of the project provinces will take on activities related to cervical cancer screening.

1.1. Ethnic minorities in the project provinces

Some project provinces have high rates of EM populations. In particular, Tra Vinh and Bac Lieu are inhabited by Khmer; Ninh Thuan by Cham and Raglai, Quang Tri and Quang Binh by Bru Van Kieu, Ta Oi, Co Tu and Chut; and Son La, Hoa Binh, and Yen Bai by Thai, Muong, Tay, Hmong, and Dao residents. The Khmer Muong, and Thai groups each have more than one million people while Chut has fewer than 10,000 people. Some EM groups, such as Ta Oi, Co Tu, and Chut, face very difficult socio-economic conditions.

1.2. Objectives of a social assessment

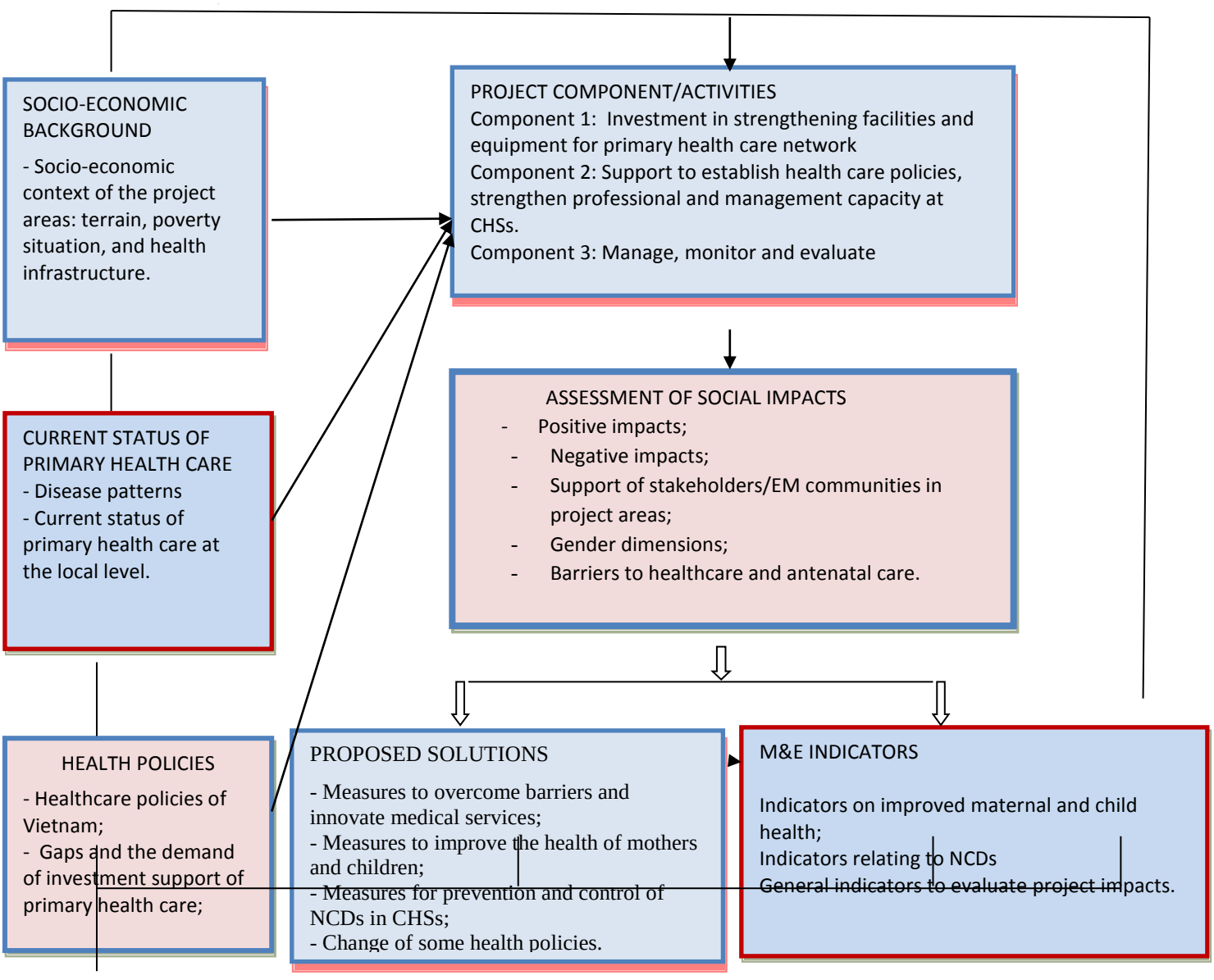
The objective of a social assessment (SA) is to evaluate the project's potential positive and adverse effects, and to integrate social background in project design to minimize negative social impacts and maximize positive social impacts.

1.3. Scope of assessment

The SA were conducted in Son La (Northwest), Quang Tri (Central Region), and Tra Vinh provinces (Mekong Delta).

II. SOCIAL ASSESSMENT METHODS

2.1. The analytical frame



2.2. Assessment research methods

To collect socio-economic information at the household level fully and precisely, the participatory approach is used in this survey. Accordingly, desk review, qualitative methods and direct observation are applied to gather information.

2.2.1. Desk review

Based on the available material from the research and investment projects on health infrastructure in Vietnam in recent years, the team reviewed the documents related to the disease patterns, the demand for medical examination and treatment at the primary level, the necessity to invest in equipment and training of human resources at the local level. A review of the socio-economic situation in the project areas is based on national surveys related to disease patterns, and medical examination and treatment at the local level, such as the national survey on health, Vietnam Household Living Standard Surveys (VHLSS), and the Socio-economic Survey of 53 EM groups, and MICS.

2.2.2. Qualitative methods

The qualitative methods included to a wide range of research tools, such as in-depth interviews, focus group discussions (FGDs), and observation of health services and conditions in the project sites.

In-depth interviews and focus group discussions. As many as 14 FGDs, including 10 with villagers, were conducted in 5 communes in Tra Cu, Dakrong and Yen Chau districts in Tra Vinh, Quang Tri and Son La, and 4 FGDs with health workers in 3 district health centers. In Yen Chau district (Son La), where the district hospital was not merged with the district health center like the model at Dakrong and Tra Cu districts, 2 FGDs were conducted with staff from Yen Chau district's health center staff and hospital.

FGDs in each commune included: (i) key officers at the commune level and commune social organizations such as the Women's Union, and health clinics. In the mountainous province of Son La, village elders were engaged in FGDs; (ii) local people, including household representatives from Kinh and EM male and female groups, and those who have used health services at both district and commune levels.

FGDs at the district level included leaders from district health centers and poly-clinics, leaders/health staff from some divisions, such as those relating to obstetrics and gynecology, and clinical departments of NCDs, such as those relating to hypertension and diabetes, and staff from health planning divisions.

In-depth interviews: The informants included village midwives, pregnant women and with small children

from EM groups. The contents of the in-depth interviews were related to the project's impacts on EMs, and expectations of the interviewees toward the project's interventions.

Consultation with provincial health workers. Three consultations were held with managers from provincial health departments, who are in involved in professional activities in health and health care, and in planning and implementation of local socio-economic development. The objectives of the provincial consultations are to obtain background information on the overall performance of district centers and/or hospitals and advice on fieldwork sites, and to collect data on local healthcare.

2.2.3. Participants' observation

This method helps better understand the local contexts through observing actual conditions of health facilities and attitudes of health workers during examination and treatment. On a basis of the observation, the team further discussed with health staff how to upgrade facilities for better medical examination and treatment, particularly in screening for and treatment of NCDs at the commune level.

2.2.4. Survey sites and samples

Table 1: Sample

	Tra Vinh	**Quang Tri**	**Son La**
Consultation at provincial level	Director of Department of Health; heads of health divisions; Head of General Planning	Deputy Director of Department of Health, Head of General Planning	Director of Department of Health, and heads of district health divisions
FGDs at district health centers and hospitals	Hospital leaders; Heads of relevant departments (8 people)	Leaders of district health centers; hospital leaders and department heads (10 people)	Doctors; hospital leaders (6 people) District health center staff (4 people)
FGD at commune level	Kinh men and women	02 groups of health workers and commune leaders; Ta Oi female groups	Kinh people (5 people)
	01 group of Khmer women at childbearing age	01 group of Bru Van Kieu women	01 group of Hmong and Thai women
Interviews with key informants	Director of Department of Health; Head of Kim Son CHS	Officer of Dakrong district health center; Head of A Vao and Huc Nghi CHSs	Planning officer; Provincial Health Department; Health statistics officer from Yen Chau Hospital; Head of Chieng Hac and Sao Vat CHSs
Interviews with patients (NCDs) at district and commune levels	1 patient with lung disease in the district 1 female patient with hypertension and neuropathy in the commune	1 patient with hypertension in district hospital One EM female with early marriage, having new-born baby in district hospital	Two patients with NCDs in Yen Chau Hospital; 2 female patients with hypertension at Na Pa and Pa Vat communes.
Interviews with pregnant women at district and commune clinics	2 pregnant women visiting district hospitals for pregnancy check-ups	1 Ta Oi pregnant woman 1 Bru Van Kieu woman with a small child	2 Thai women who gave birth at Yen Chau District Hospital; 1 Hmong woman who gave birth at home in Hang Hoc village, Chieng Hac commune A young Hmong man who participated in birth delivery at home by his wife

III. GENERAL CONDITIONS IN PROJECT PROVINCES

3.1. Healthcare at national, provincial and district levels

3.1.1. Utilization of health services by type of health facilities.

According to VHLSS 2014, the proportion of people who received medical treatment in the 12 months prior to the interview was 37.2%, of which 33.5% had outpatient treatment and 7.5% had inpatient treatment. In terms of health facilities, the proportion of the people choosing state-owned hospitals was 43.1%; private health care 30%; and CHSs 20%. The rest went to regional poly-clinics, traditional medical practitioners, and others.

Table 2: Proportions of the people using health care services in the last 12 months before VHLSS 2014 by type of health facility, region and province

	By health facility						
	Total	***State-owned /Public hospital***	***CHSs***	***Regional poly-clinic***	***Private health facility***	***Traditional medical practitioner***	***Others***
Nationwide	**100.0**	**43.1**	**20.0**	**3.1**	**30.7**	**1.2**	**1.9**
Son La	100.0	88.0	6.7	3.0	1.6	0.0	0.6
Hoa Bình	100.0	85.9	7.1	6.0	1.1	0.0	0.0
Quang Bình	100.0	84.6	10.3	2.9	1.4	0.0	0,.8
Quang Trị	100.0	78.2	9.9	4.8	5.0	0.3	1.7
Thua Thien Hue	100,0	90.4	2.6	2.6	2.9	0.0	1.4
Ninh Thuan	100,0	79.2	5.6	8.5	4.2	1.0	1.6
Tra Vinh	100,0	93.9	1.6	0.0	4.5	0.0	0.0
Vinh Long	100,0	91.6	3.7	0.8	3.5	0.0	0.4
Hau Giang	100.0	92.2	2.0	0.4	5.5	0.0	0.0

Source: VHLSS 2014

However, looking at the picture of medical service utilization, three surveyed provinces had relatively high rates of patients choosing medical treatment in government hospitals, which was twice as high as the national average. The lowest rate was in Quang Tri, but also accounted for 78.2%. In contrast, the proportions of people using CHS services were very low, only 1.6% in Tra Vinh; 6.7% in Son La and 9.9% in Quang Tri.

3.1.2. Access to and utilization of maternal and child health services

- **Inequalities in access to maternal and child health care still exist**

Maternal and child health services are among the aspects that the proposed project is expected to improve and strengthen in the participating provinces. MICs data for 2014 show that improvements in maternal and child health services in disadvantaged areas are an urgent need to move towards equality, narrowing the gaps in the utilization of health services among Kinh and ethnic minorities, between Kinh women and ethnic minority women, and between the rich and the poor. In 2014, the proportion of deliveries attended by trained health workers was 93.8% nationwide, but only 68.3% for ethnic minority women and 73.4% % in the poorest quintile. The proportion of pregnant women receiving antenatal care for 4 times or more was 73.7% nationwide, but only 32.7% for ethnic minorities and 38.6% for the poorest quintile. Meanwhile, the proportion was 96% in the richest quintile. In 2015, full vaccination coverage was 97.1% nationwide and exceeded 95% in 53 out of 63 provinces. However, the full vaccination rate was low in disadvantaged groups, only 70%. For example, this rate of ethnic minority children was only 69.4%, and 72.2% in the poorest quintile. The rates for the Northern Mountainous and Central Highland provinces were only 71% and 70.5% respectively[15].

- **High rates of EM women giving birth at home have contributed to high infant mortality rates.**

One of the issues of primary health care is that antenatal and postnatal care pregnant women from EM groups is extremely difficult. The CEMA survey in 2015 showed that eight EM groups had over 70% births delivered at home in 2014. Ensuring safety for pregnant women and newborns is difficult in the absence of trained health workers and necessary equipment at the village level.

Table 3. The numbers and percentages of EM women giving birth in a health facility or at home

No	Ethnicity	Number of EM women coming to health facility for delivery	Number of EM women giving birth at home	Percentage of EM women coming to health facility for delivery (%)	Percentage of EM women giving birth at home (%)
EM[16]		**1,621,782**	**925,065**	**63.6**	**36.3**
1	Tay	298,764	64,289	82.2	17.7
2	Thai	160,229	215,494	42.6	**57.3**
3	Muong	220,924	59,057	78.9	21.1
4	Khmer	211,879	19,011	91.3	8.2
5	Nung	139,435	53,729	72.0	27.8
6	Mong	51,040	176,096	22.4	**77.4**
7	Dao	97,829	81,300	54.5	45.3
8	Cham	25,695	4,802	84.2	15.7
9	Raglay	17,148	8,140	67.6	32.1
10	Kho mu	4,368	12,019	26.6	**73.3**
11	Bru Van Kieu	9,434	5,563	62.7	37.0
12	CoTu	8,495	5,380	61.1	38.7
13	Ta Oi	7,362	1,814	80.2	19.8

[15] GSO and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey (MICs) 2014, Final Report. Ha Noi, Viet Nam.

[16] According to CEMA's socio-economic survey of EM groups, 2015.

No	Ethnicity	Number of EM women coming to health facility for delivery	Number of EM women giving birth at home	Percentage of EM women coming to health facility for delivery (%)	Percentage of EM women giving birth at home (%)
14	Gie Trieng	7,512	3,911	65.6	34.2
15	Xinh Mun	1,275	4,386	22.5	**77.4**

Source: CEMA, GSO, Socio-Economic Survey of 53 EMs, 2015

Birth deliveries at home without support of health workers, in addition to other factors, had increased the proportion of under-one and under-five mortality rates in some EM groups such as Hmong, Bru Van Kieu, Co Tu, Ta Oi, Chut, and Gie Trieng. According to CEMA, the mortality rates of children in these EM groups nearly doubled the national child mortality rate (14.9% of under-one and 22.44% of under-five mortality rate). Difficult living conditions, distances from home to district hospitals and other barriers relating to customs, malnutrition and diseases in under-five children from EMs have not changed considerably[17].

- **High rates of women with gynecological diseases, especially those from EMs.**

At the survey sites, the rates of women suffering from gynecological diseases were very high, especially in Dakrong district, Quang Tri province. According to a report by the District Health Center, about 55-60% of local women suffered from gynecologic diseases, such as vaginitis, and vaginal yeast infections. In Tra Cu district, Tra Vinh province, gynecological diseases accounted for about 44% of the total visits for health checks in district hospitals. In Yen Chau district, Son La province, the rate was about 40%. In the five surveyed communes, the rates of female sufferers visiting clinics were relatively high. At the Health Center in Huc Nghi Commune, Dak Rong district, Quang Tri province, the rate of women suffering from gynecological diseases made up 77% of the patients visiting the center. Of the 718 visits for gynecological check-ups in Kim Son commune, Tra Cu district, Tra Vinh province,[18] in 2017, 363 patients were treated, mainly with vaginitis, and provided with anti-inflammatory medicines. At the CHSs in Sao Vung and Chieng Ha communes in Son La province, the percentages of women with gynecological diseases, especially those from Hmong and Sinh Mun groups, were high. The incidence of vaginitis, as told by local midwives, was higher than 60%.

The high incidence of gynecological diseases in Dakrong district was attributed to bad living conditions relating to water and sanitation facilities for women. Especially, local women's awareness of hygiene was very limited. Most of EM women in Huc Nghi and A Vao communes used to work in gold mines and bathe in water polluted by gold treatment, therefore the rate of vaginitis infection was very high. For many H'mong women, due to high mountainous terrain, they often travel far away for farming. Water supply is limited, therefore they cannot bathe regularly. In addition to poor hygiene, high morbidity rates are also related to a lack of awareness and compliance with medical staff's instructions. Vaginitis and vaginal yeast infections are the most common but difficult to control and follow up in the community, as most women come to a health facility for check up and treatment only when they feel uncomfortable and patients do not strictly follow medical appointments with commune health workers.

[17] Committee for Ethnic Minorities, 2015. Socio-Economic Survey of 53 Ethnic Minorities in 2015
[18] Report of Kim Son Medical Station, Tra Cu, Tra Vinh for consultant group, December, 2017.

The surveyed districts of Dakrong, Tra Cu and Yen Chau, have made efforts to support examination and treatment of gynecological diseases at health facilities, but these efforts are not maintained every year due to limited budget. Although gynecological diseases are very common in some surveyed sites, cervical cancer screening is not available at district and commune health facilities. There has been no comprehensive statistics on cervical cancer screening at primary health care facilities.

- **Incidence/death caused by obstetric complications at the surveyed sites[19]**

According to Quang Tri DoH, the rate of obstetric complications per 1000 deliveries in 2017 was 14.3%. This rate was also much higher than the rate of obstetric complications in the Central Region (3.3%) and the rate of obstetric complications in the whole country (5.1%). The reason is that the number of patients who had to be referred from the primary level to the provincial general hospital was rather high. Due to long travel, the situation became worsened and often difficult to intervene, when patients were moved to higher-level health facilities, which resulted in high mortality rates. Meanwhile, according to a report by the Quang Tri DoH, only four district hospitals can handle caesarean section, three hospitals can carry out blood transfusion and provide both surgical services lactation and blood transfusion. Only three district hospitals can provide neonatal care. The remaining eight districts cannot provide services relating to cesarean section, blood transfusion and neonatal intensive care due to lack of equipment and qualified. In Yen Chau district, Son La province, due to poor transport conditions, long distances from provincial and central hospitals, the mortality rate remained at an alarming rate. In 2017, there were six maternal deaths at birth, with two at CHS and at home in Muong La district, one in Song Ma district and one in Moc Chau district. Causes of death include hemorrhage and eclampsia which are not treated in a timely manner. Improving the quality of healthcare services for women and children is an important need to reduce the incidence of obstetric complications and the maternal and child mortality rates.

3.1.3. NCDs/trace conditions at national level and SA provinces

According to MoH, in 2014, local authorities implemented activities to prevent and manage NCDs in the primary care network, such as cardiovascular diseases, diabetes, cancer, and mental illness, with encouraging results. However, many problems persist as a result of various constraints of the service delivery system, particularly the separation between preventive medicine and medical examination and treatment, and the unsatisfactory primary health network with inadequate manpower, facilities and motivation to meet the increasing local needs[20].

According to a report by the World Health Organization (WHO), produced in 2014, the number of NCD patients had increased considerably. According to WHO estimates, mortality caused by NCDs accounted for 73% of deaths (379,000 out of 520,000 deaths) in Vietnam in 2012, with cardiovascular disease representing the highest proportion of 33%, cancer 18%, chronic obstructive pulmonary

[19] Refer to the data of obstetric complications in Quang Tri province - Appendix 1

[20] MoH, and Health Partnership Group "Joint Annual Health Report 2014 - Strengthening prevention and control of NCDs - Summary report", 2015.

disease (COPD) 7% and diabetes 3%. In 2012, the rate of NCDs was estimated to account for 66.2% of the total diseases due to all causes in Vietnam[21].

Based on WHO health statistics, 25% of the Vietnamese population suffered from hypertension but about 60% of the people with severe hypertension were neither diagnosed nor treated. Strokes, heart attacks and heart diseases caused by hypertension are among the top 20 causes of death in Vietnam. Each year, there are about 200,000 new cases and about 11,000 deaths. The cancer registry in Vietnam estimates that there are about 100,000-150,000 new cases and about 75,000 deaths each year. More than 70% of cancer cases are detected late, their treatment is no longer effective. The mortality rate for chronic obstructive pulmonary diseases is high, accounting for 5% of the total deaths from all causes[22].

From 2002 to 2012, the number of diabetes cases increased from 2.7% to 5.7% (around one million people contracted), but more than 70% of patients had not been diagnosed. Only 29% of people with diabetes and nearly 30% of people at risks for cardiovascular diseases were prevented and managed. Only around 31% of women aged 30-49 were screened for cervical cancer. Primary health care facilities, especially in most CHSs, did not provide preventive services for early detection and management of long-term treatment of patients in the community[23].

Emerging NCDs in the SA provinces

Health workers in the surveyed sites at the provincial, district and commune levels reported that NCDs, especially hypertension and diabetes, have been on the rise in recent years. A ranking exercise of the ten diseases with the highest incidence among medical examinations in 2017 by Tra Cu, Dak Rong and Yen Chau district hospitals showed that NCDs were in the top 10 diseases with the highest prevalence among examination cases.

Table 5: Top 10 highest prevalence diseases among outpatient cases in 2017 in the SA provinces

No	Tra Cu Health Center, Tra Vinh province	Dak Rong Health Center, Quang Tri province	Yen Chau Health Center,[24] Sơn La province
1	Baseless Hypertension	Sore throat	Sore throat and acute tonsillitis
2	Gastritis-colon	Tonsillitis	Transient anemia and similar syndromes
3	Normal birth- cephalic presentation	Pneumonia	Gastritis and duodenum
4	Open wound in the head	Bronchitis	Diabetes
5	Vestibular dysfunction, not specific	Gastritis-duodenum	Rheumatoid arthritis and other inflammation.
6	Chronic ischemic heart disease.	Hypertension	Flu
7	Upper respiratory tract	Intestinal infections	Upper respiratory tract infections

[21] WHO – NCD, Country Profiles, 2014, and WHO, Health statistics and information systems. Global Health Estimates for the years 2000 - 2012: http://www.who.int/healthinfo/global_burden_disease/estimates/en/

[22] MoH and Health Partnership Group "Joint Annual Health Report 2014 - Strengthening prevention and control of NCDs - Summary report", 2015.

[23] MoH and Partnership, Joint Annual Health Review 2014. Enhanced prevention and control of non-communicable diseases - summary report.

[24]Yen Chau district hospital in Son La province is being upgraded to become a second-class hospital, so it will not be merged with other health centers such as Tra Cu-Tra Vinh and Dak Rong-Quang Tri.

No	Tra Cu Health Center, Tra Vinh province	Dak Rong Health Center, Quang Tri province	Yen Chau Health Center,[24] Sơn La province
	infection, not classified.		and others
8	Other benign tumors of connective and soft tissue.	Diseases of obstetrics and gynecology	Bronchitis and acute bronchitis.
9	Gastritis and duodenum		Hypertension
10	Bronchitis (not defined as acute or chronic)	Musculoskeletal disease	Other diseases of nerve system

Source: 2017 ranking: 10 diseases with the highest rates among patients in the three district hospitals in the three provinces of Tra Vinh, Quang Tri, and Son La, provided by the provincial health departments in Dec 2017 and April 2018.

The health statistics on the three provinces also reflected increased incidence of NCDs, especially hypertension and diabetes. In Tra Vinh and Quang Tri provinces, cases of diabetes and hypertension among outpatients accounted for the highest proportion of cases of endocrine and metabolic diseases in hospitals. For example, in 2016, the number of diabetes cases in Tra Vinh provincial hospitals was 75,684 out of 93,584 total cases of endocrine and metabolic diseases. This figure was 52,098 cases out of the total of 62,037 cases in the first nine months of 2017. In 2016, the number of primary hypertension patients was 147,992 cases out of the total of 199,882 cases. In Son La, the number of diabetes cases in 2017 was 33,081, accounting for 58.6% of total cases of patients visiting hospitals for endocrine and metabolic diseases. The number of people diagnosed with hypertension was 29,079 cases, accounting for many diseases of the circulatory system[25].

The assessment also showed a similarity between some of the risk factors for increased NCDs / trace conditions in the local population participating in the assessment with increased risk factors for NCD at the national level. According to health workers in the study sites, the trend of increasing NCDs in these areas is related to some factors of behavior, and unhealthy lifestyle with considerable consumption of tobacco and alcohol. Smoking is habitual in the Bru and Van Kieu EM areas, for both men and women.

In the three provinces, especially in Son La and Tra Vinh,[26] local people eat substantial amounts of high-sugar starch (for example, the tradition of eating sticky rice all year round among the Thai EM in Son La province) and use considerable sugar in both eating and cooking. Son La and Tra Vinh have large areas under sugar canes, and their people consume considerable amounts of sugar cane.

3.2. Background informaton on the SA provinces

Three provinces were selected for the assessment, namely Son La in the Northern Mountains; Quang Tri in the Central Region; and Tra Vinh in the Mekong Delta.[27]

Tra Vinh is located in the Mekong Delta, southern Vietnam, on Highway 53, 130 km away from Ho Chi Minh City, covering an area of 2.2 thousand km2 with a population of around one million people. The plain is flat, and the population concentrate in hamlets. The Khmer group accounts for 30% of the province's population. The Gross Region Domestic Product (GRDP) growth rate reached 12.5%

[25]Provincial Health Statistics Report, 2016 and 9 July 2017 (provided by Tra Vinh Department of Health) and Son La Department of Health Statistics (4/2018).

[26]A Thai patient with diabetes, Na Pa village, Son La, said that on average, her family consumes about 10 kg of sugar per month for cooking and drinking lemonade.

[27] Socio-economic and health data are provided by the Department of Health of Son La, Tra Vinh and Quang Tri Provinces for evaluation by the end of 2017 and early 2018.

per year. The poverty rate in 2016 was 13.23% (35,506 households), while the near-poverty rate was 7.68% (20,600 households). The Khmer group has higher rates of poverty than other EM groups.

The province has 135 public health facilities, with more than 2,000 beds, with the rate of 20 patient bed per 10,000 people. The demand for medical treatment in 2016 increased by 11.05% compared to 2015. Medical facilities did not meet local needs of medical examination and treatment, especially inpatient medical examination and treatment. In 2017, there were about 2.2 million patient visits, including 145,000 inpatients, representing an increase of 2.5 times compared to 2016.

Tra Cu is a remote district, with the Khmer group accounting for 62.2% of the population. The poverty rate was 17.7%, and almost all people in this district were covered with health insurance. The district has 17 CHSs, with 10 new and seven degraded ones. No budget had been available for repairing and upgrading. Major diseases in Tra Cu district are infectious ones, such as dengue fever, and 'foot-and-mouth' among children. Diseases were subject to rapid speed of infection in the community, especially dengue fever. In recent years, NCDs have been on the rise, such as hypertension, and cardiovascular diseases.

Quang Tri province: Located in the North Central region, with a total natural area of 4.7 thousand km^2, Quang Tri has 10 administrative units, including one city, one town and eight districts (including two mountainous and one island districts), with a population of 616,670. The provincial population density is 126.7 persons/km^2, which is relatively lower than other provinces in the country. The province has three main ethnic groups, namely Kinh, Van Kieu and Ta Oi, accounting for about 9% of the total population. The average GRDP growth rate is 7.4% per year.

The province has 1,735 patient beds. In 2017, there were about 978 thousand visits, of which 150,000 were for inpatient treatment. In 2017, 92.2% of CHSs met national standards. However, facilities, especially medical equipment, are old and degraded. There was a lack of qualified staff in district health centres and CHSs, not meeting the increasing local demand for medical examination and treatment, especially in mountainous, remote and isolated communes of Dakrong and Huong Hoa districts.

Dakrong is a mountainous district, being listed among the poorest districts supported by the Government's Program 30A. The ethnic minority groups account for 30% of the district's population. The area of the district is very large, from the most remote commune (A Vao commune) to the district center is about 80km. The ethnic minority groups include Ta Oi and Bru Van Kieu, sparsely populated, especially along the 60-km border with Laos. With such geographical features and population, the disease pattern in the district is very complex.

Son La province: Located in the Northwest, this mountainous province has difficult terrain and transportation. Son La city is 320 km northwest of Hanoi. The natural area is 14,055 km2, and the population is over 1.2 million people. Son La province has 12 ethnic groups, including Thai, Kinh, Muong, Tay, and Dao, which represent 54%, 18%, 12%, 8.4%, and 2.5% of the provincial population, respectively. The other smaller ethnic groups are Kho Mu, Xinh Mun, Khang, La Ha, Lao, Tay and Hoa. In 2016, the GRDP growth rate increased by 7.32%; and the province's budget revenues reached 4,006 billion VND. The poverty rate was 31.91% in 2016.

As reported by the Department of Health, by 2017, the province had had 222 medical facilities, and 3,660 beds. The number of beds per 10,000 inhabitants was 23; and the natural population growth rate was 1.22%. In the same year, the rate of under-five stunting was reduced to 20.5%; and nearly 1.5 million visits were made, an increase of 16% over 2016.

Yen Chau district is located on Highway 6, 60 km from Son La city and 130km from Hanoi. The area of the district is mainly mountainous and divided markedly. The ethnic minority groups account for more than 80% of the district's population, chiefly Thai, Hmong, Kho Mu and Xinh Mun.

The Government of Vietnam has made great efforts to invest in health infrastructure in rural and mountainous areas with high rates of ethnic minority population. By 2016, 8,933 communes had had CHSs, with 69.8% meeting national standards for CHSs according to the criteria set for the 2016-2020 period. Nationally, the percentage of villages with village health workers/mid-wives reached 96.2% (93.9% in 2011), with the Northern Midland and Mountainous areas reaching the highest rates (98,8%). In the Central Highlands, this proportion increased sharply from 84.3% in 2011 to 96.1% in 2016[28], thanks to the policy on increasing village health workers.

However, in fact, many localities have not been provided with investments in road infrastructure, so local access to health facilities remains very difficult. The ethnic minority groups live in upland and remote areas, and most of the Dao, Hmong and Bru Van Kieu ethnic minority people still reside far away from health facilities.

Table 2: Average distances (km) from home to hospitals, clinics, and town centres/townships, by ethnicity

No	Ethnicity	Average distances (km) from home to		
		Hospital	Health station	Town/city centre
	Average for EM households	**16.7**	**3.8**	**9.1**
1	Tay	15.0	2.9	6.6
2	Thai	20.5	4.1	12.0
3	Muong	16.3	3.1	5.9
4	Khmer	8.6	2.9	3.4
5	Mong	27.8	7.3	17.0
6	Dao	24.6	6.2	12.1
7	Hre	17.1	3.4	10.3
8	Raglay	12.6	2.5	7.4
9	Bru Van Kieu	28.8	4.0	18.9
10	Co Tu	20.9	3.3	20.7
11	Ta Oi	22.6	2.3	20.9
12	Gie Trieng	22.4	2.9	23.5
13	Khang	31.3	5.4	18.9
14	La Ha	32.6	8.5	23.6
15	Chut	48.0	4.4	15.3

Source: CEMA, GSO, and the Socio-Economic Survey of 53 Ethnic Minorities, 2015

[28] Agricultural and Rural Survey 2016

IV. MAIN FINDINGS FROM THE SOCIAL ASSESSMENT

4.1. Broad community support for the project's positive impacts

The proposed project has received broad support from all stakeholders, from potential beneficiary communities, including EM groups, such as Hmong, Dao, Thai, and Xinh Mun in the North, Paco and Bru-Van Kieu in the Central Region, and the Khmer in the South. Community leaders, village elderly and village chiefs who attended the consultations spoke positively about the project, appreciated its benefits, and demonstrated their support for the project.

First, local people in general and EM communities in particular appreciate the role of CHSs as they are convenient not only for the sick but also for relatives visiting and taking care of patients when necessary. Intimacy and friendliness of the CHS staff are also the virtues that local people appreciate. They also said that costs of CHS's services are affordable. In addition, Hmong, Thai or Bru Van Kieu feel people more comfortable and secured when health staff can communicate with them in their own ethnic languages. However, some people prefer going to higher-level health facilities for medical treatment, especially when hospital is not far from their communes. They use the district hospital's health care services because they believe that the quality of health care provided by the district hospital is better than that of a CHS. In addition, district hospitals are considered to be better than CHSs for a number of reasons, such as adequate delivery facilities and better capacity of health workers to handle complicated birth deliveries. As local people appreciate commune health services, improvement of primary health services, especially health clinics, has met the expectation of communities to have friendlier and more convenient services.

Second, the SA showed that gynecological and stunting are two diseases that are considered prevalent among ethnic minority groups and hypertension, diabetes is also seen as a new disease in the community. Surveys data collected at the sites mentioned in section 4.4 have shown that approximately 70% of the women who go to health clinics are found to have gynecological diseases. Health workers at the CHSs believe that the causes of the disease are high in the study sites because of the lack of daily physical hygiene knowledge, working in unsanitary conditions (mud bathing, pond wading) and lack of clean water. In Son La, apart from the lack of knowledge about body hygiene, Hmong women are reported to suffer from gynecological diseases because they often live in high elevation terrains, thus lacking clean water, especially during the dry season. Meanwhile, the causes of malnutrition among ethnic minority children, identified by health workers due to several factors such as backward social custom of childbearing, child marriage, malnutrition during pregnancy, short breastfeeding time due to mother's early labor, and insanitary conditions for caring

> We are looking forward to this project. If the project is implemented, it will reduce the number of patients treated and monitored at the provincial level. At the same time, commune health clinics will be able to manage and care for patients with NCDs in the community which is beneficial for both the people and the health system. The project will help us to improve capacity in managing vaccination, immunization and reproductive health care, maternal and child health in the community, giving more opportunities for local people to use service packages and to enjoy better health care "(Leader of Tra Vinh DOH).
>
> "If CHSs are invested in by the state, if our village has a medicine cabinet for headache and flu or village health training is provided to support villagers, women will benefit most. We are very committed to supporting the project and are ready to assist when the project has specific requirements. " a Thai village chief, Na Pa, Sap Vat, Son La).

and nursing children. In addition, home births are common in some mountainous areas in Quang Tri and Son La[29]. Some recommendations for project implementation have been set out to address these causes and constraints. As district and commune health facilities currently lack quality equipment and human resources for maternal and child health care, the project creates an opportunity to help local authorities address barriers in providing maternal and child health services. In this way, the project will significantly improve management and care of pregnant mothers, birth delivery, prenatal and postnatal care and newborns, preventing stunting and contributing to narrowing the gap in accessibility to maternal and child care services between lowland and mountainous areas, as well as between Kinh women and EM ones.

Third, medical achievements in cancer prevention have proven that early detection of cervical cancer in women will increase the chance of curing this disease for them. However, in both rural and urban areas, many women, especially poor ones, do not have the opportunity. Health data in the surveyed provinces showed that the rate of gynecological infections is very high among women, especially in rural and mountainous areas[30], where they work in hard conditions in dirty water, or where water and sanitation conditions are limited. Screening for cervical cancer at the request of a patient is very limited because the screening service is only available at the provincial level and costs are quite high. Women have to pay in full without insurance coverage.

Local female respondents and representatives from local women's unions agreed that a model of combining cervical cancer screening and gynecological examination, as proposed by the project, would increase the number of women who can be diagnosed early, thus reducing the proportion of women who die from cancer. This model is seen as a practical benefit for women in general and for poor and EM women in remote communities, who are often unaware of the necessity to be screened for cervical cancer and also have no financial conditions to realise it.

Finally, NCDs, such as hypertension and diabetes, have emerged in both rural and mountainous areas for a variety of reasons, including changes of lifestyle and eating habits which has not received enough attention from local people. And women are no exception. Some statistics in the provinces showed that many women have been suffering from diseases such as diabetes and primary hypertension and have been treated in the higher-level health facilities, because CHSs could not detect early and provide adequate treatment[31]. Information obtained from community consultation and commune health staff also showed that current health facilities are inadequate (in terms of both personnel and equipment) for screening, treatment, and management of diseases. As a result, local people and health workers at all levels agreed that improvement of primary health care (at district hospitals, district health centers and CHSs), development of a district health service system supporting CHSs, and a new role for CHSs in early screening, management and treatment of hypertension and diabetes will contribute to promotion of early screening, follow-up, and treatment at communities which will help local people in general and women in particular to early detect diseases and to be managed and treated in accordance with local economic conditions and culture in each community.

In summary, through the project, the provincial health network in the project provinces will be strengthened and upgraded comprehensively both in terms of essential medical equipment and facilities and staff capacity. Investment in upgrading special health care networks in disadvantaged

[29]A report from the deputy director of Son La Provincial Department of Health showed that the proportion of women giving birth at home in the province in 2017 was 30%.
[30]Review the gynecological data in Part II.
[31] See Appendix 2 for the number of people who visit and treat in hospitals in Son La and Tra Vinh by gender in 2017.

areas will have direct effects on narrowing gaps in access to health services among EM groups and their regions, meeting the need for treatment in the new situation, as NCDs are becoming more common in rural and mountainous areas. Results from the project activities will contribute positively to poverty reduction measures and policies in the health sector. Strengthening capacity of CHSs will decrease local people's needs to go to higher-level health facilities, significantly reducing travel and accommodation costs during medical examination and waiting time. The effects of poverty alleviation and reduced burden of medical costs on local people living in extremely difficult, EM and mountainous areas are significant.

4.2. Negative/unintended impacts

As the project does not require land acquisition and resettlement, its negative impact is negligible. There may be some potential and unintended effects of the project activities on local people. In poor provinces, health expenditures are a burden on the poor. If CHSs and regional polyclinics receive additional services with modern facilities, the rates for service packages may increase, which in turn will affect poor households. However, in practice, most of poor and EM households in the project provinces have health insurance, therefore the magnitude of this impact is not significant.

From another perspective, surveying and assessment during the project design phase is very important for the investment components. It is also suggested that if the investment review is not careful and does not originate from actual needs of grassroots health facilities, wastage of equipment is also an undesired issue. Therefore, to avoid this impact, the design and construction processes should be implemented in a transparent manner to avoid wastage. (from FGD with Dakrong District Health Department, Quang Tri).

According to local consultations, in areas where CHSs are provided with obstetric ultrasound, patients and physicians often prefer ultrasound. This may satisfy patients' curiosity while it may also bring money to some doctors. Without proper management of this activity, ultrasonic abuse in certain types of illness, especially in obstetrics and oncology, can lead to ultrasonographic side-effects.

Other risks may arise after the project. After CHSs are provided with new equipment and health workers' capacity of medical examination and treatment is improved, people may still go to higher-level health facilities if some of the provisions in the health insurance policy are slow to revise. For example, the insurance policy provides for district-based drugs not allocated by the commune, as the time allocated for commune-level NCDs is too short (5 days) compared to the time of provision at the district level (30 days)[32]. These regulations, if not revised, may result in a fact that patients with type-2 diabetes or hypertension will still go to higher-level health facilities to get the medicines as they think it is better and more familiar because they used to take before. Therefore, to overcome these negative factors that may cause wastage in investment in CHSs, some health insurance policies should also be revised.

Government-funded projects only support construction and upgrading of equipment and facilities in some provincial hospitals and a few clinics that meet national standards. Many district hospitals have

[32]See Section 4.5. Barriers to examination and treatment of NCDs.

not been upgraded although their medical equipment is very old and not compatible with the enhanced professional capacity of trained medical staff. Meanwhile, the demand for medical treatment and primary health care, especially maternal and child health care, has been increasing. Despite some concerns about some potential negative impacts, the health authorities and communities agreed that investment in construction of facilities and provision of basic health care services is an urgent need to improve the delivery of the primary health care system in the national health system.

4.3. Barriers to accessing primary health care for mothers and children

There are many barriers to the care of mothers and children in rural and mountainous areas. In addition to poor socioeconomic and health infrastructure conditions in rural, mountainous and ethnic minority areas, cultural barriers, including habitual practices, are major obstacles, affecting access to health services for women and children, especially at the grassroots level.

(1) Outdated medical equipment for obstetric care and lack of training and regular practice for staff

The consultants' study of CHSs in Tra Vinh, Quang Tri and Son La provinces showed that almost all CHSs have been reconstructed under government-funded infrastructure rehabilitation programs. However, their equipment has been degraded and there is a lack of essential equipment in medical examination and treatment and obstetric care. For example, the equipment at Huc Nghi and Avao CHSs in Dakrong and A Vao districts, Quang Tri province, was purchased in the 2000s. There is a lack of equipment for gynecological examination, such as speculum, clips, and lamps while gynecological examination tables and delivery tables have been degraded, broken or rusted (see photos in the appendix). The sterilization equipment, such as autoclave and sterilizing oven, is inadequate, therefore cleaning of medical equipment is difficult, not meeting requirements of medical examination in the CHSs.

This is quite common in rural communes, and it is why people living in the vicinity of district hospitals go to such facilities to get services and contribute to the "over-crowding" there.

(2) EM women are not accustomed to antenatal care

A major challenge to mothers and their care of children in rural and EM areas is their self-handling of pregnancy and deliveries at home. EM women in remote areas do not visit clinics for pregnancy check-ups. They usually go a long way every day to farms and work hard there. As such, they are unaware of or simply skip examination and check-up during their pregnancy. In Dacron district, the rate of women attending all 3 pregnancy check-ups is only 80%. Women in some remote EM communities with poor road conditions often skip check-ups. The rates of women not taking antenatal care are 63.5% among Hmong, 55.9% among Khang, 41.3% among Dao, 30.1% among Hre, 28% among Bru Van Kieu, and 11.5% among Ta Oi.[33]

Giving birth at home is quite common among the Hmong and other EM groups in mountainous areas. This rate was 30% in Son La province in 2017, predominantly among Hmong women. EM women believe that giving birth is an important event with lasting impacts on their life and health. They have to follow strict rules related to the delivery. Some deliver at home as a tradition. Hmong women in labor often stay in a cubicle for delivery, with the witness of a loved person and a religious one. This

[33]CEMA, 2016, Report on the socio-economic survey of 53 EMs.

habit continues although CHSs may offer better care. If women decide to give birth at home, they do not benefit from sanitation or adequate medicaments.

Bru Van Kieu and Ta Oi women give birth in tents erected next to their homes. In preparation for the delivery, husbands usually make a tent for their wives. Women then help themselves, cutting their own umbilical and cleaning themselves. Bru Van Kieu people consider that giving birth is not a clean act, so women must do it in a separate tent to keep their houses clean. According to managers and health workers in A Vao commune (Dacron district), this practice is still very common, especially in villages located far away from CHSs.

(3) Early/underage marriage

Up to now, child marriage is still common, especially among some EM groups, such as Hmong, Ta Oi, Bru Van Kieu, and Chut. According to a socio-economic report prepared by CEMA, the Hmong have the highest rate of child marriage (59.7% with the singulate mean age at marriage (SMAM) being 18.9 years); followed by the Xinh Mun (56.3%, SMAM 18.8 years); the Kho Mu (44.3%, SMAM 19.3 years); the Khang (40.6%, SMAM 18.9 years), the Bru Van Kieu (38.9%; SMAM 20.4 years); the Gie Trieng (33.2%, SMAM 20.8 years); and the Ta Oi (28.2%, SMAM 21.7)[34]. Overall, the EM groups in the project areas have very high rates of child marriage.

In 2016, Huc Nghi and A Vao communes had 15 married couples aged between 14 and 17. Underage marriage was found among both girls and boys. Young girls become married and pregnant when they have underdeveloped bodies, insufficient knowledge of pregnancy and child care, and inadequate nutritional support for their babies. Low birth weight (LBW) is common in early marriages, which poses risks to both mothers and infants who do not have access to adequate and timely medical care.

(4) Poverty and malnutrition causing premature births and LBW

According to a health report in 2015, malnutrition rates vary in different regions but are high among EM groups. The prevalence of LBW remains high, at 12.3%, suggesting that nutritional care of pregnant women is still limited. This greatly affects physical stature and disease patterns of the adult population[35].

According to a CEMA assessment in 2015, many households in some EM groups had very low incomes, which mainly came from agriculture. Their livelihood relies heavily on natural resources. For example, a monthly per-capita income among the Hmong was VND 575,000, Kho Mu VND 511,000, Bru Van Kieu VND 600,000, Xinh Mun VND 620,000, and Ta Oi VND 940,000.[36] With such incomes, they can afford only basic food, but not additional nutritional needs for pregnant and breastfeeding women. Malnutrition contributes to a high mortality rate among infants aged under seven days in CHSs and District Hospital in Dacron disrict.

> *"LBW and miscarriage in Dacron district are quite common. These problems usually occur in connection with preterm delivery and among minor mothers. In addition, the rate of preterm labor is very high, especially in recent years, and the prevalence of premature babies has increased dramatically, which leads to very high infant mortality rates."* (FGD, Dacron Health Center)

[34]CEMA, 2016, Report on the socio-economic survey of 53 EMs.
[35]Joint Annual Health Review, p. 131.
[36]The income level is equivalent to 25 USD / person / month.

LBW, with newborns weighing between 2,500g and 3,000g, is still prevalent. During the 2014 – 2016 period, the prevalence of preterm births in Dacron district had been on the rise, while the underweight rate increased by 5% annually. The main cause of LBW included poor working conditions and maternal nutritional status. Only a limited amount of food can be found from natural resources. Many pregnant women suffer from malnutrition. The main food sources for the Ta Oi and Bru Van Kieu are forest vegetables and fish caught from rivers and streams. A lack of food supplements during pregnancy leads to poor health conditions and slow growth of a fetus.

(5) No or improper breastfeeding

Newborn care is a real challenge in mountainous and EM areas. In addition to the malnutrition of fetuses, inadequate infant care after birth and beyond is another problem.

Babies are not breastfed for the first six months in mountainous districts in Quang Tri and Son La provinces. A survey in Dacron district showed that most children were not breastfed adequately during the first month of life. According to Huc Nghi CHC staff, most of the children are born in temporary tents near their houses. The mother is left alone with the baby, without any family members who could provide support. Therefore, it is hardly possible to breastfeed babies, especially in the case of young mothers who give birth to first children.

Hmong, Ta Oi and Bru Van Kieu mothers only stay home for about 10 days after giving birth. After this short period, they usually go to far-away fields. Infants are usually kept at home with the father or grandmother. Women can only breastfeed their babies when they return home, usually in the afternoon. Therefore, after the first 10 days, babies are fed with other types of milk or food. According to the MICS report (2014), early introduction of food other than a mother's milk had slowed down growth of children and caused micronutrient deficiencies. Furthermore, the risk of malnutrition and stunting in a later stage of life would increase as a result (MICS, 2014, p.62).

Breastfeeding has been promoted as some projects have been implemented to raise awareness and change behavior of pregnant women and mothers. However, according to local health officials, breastfeeding became ignored after the projects terminated.

> *"We implemented a Save the Children project to promote breastfeeding during the first six months. The rate had increased to 37-42%, and in some cases to 60%. But after the project is completed, women have returned to old habits, and the rate of breastfeeding mothers went back to 10-15%. It is not easy to reach the target set by the health authorities."* (FGD Dacron Health Staff).

A major barrier to exclusive breastfeeding in the first six months is the diets that prevent mothers from consuming sufficient amounts of adequate foods. For instance, Khmer women are not allowed to consume some food during the first two weeks after giving birth. As a result, they do not have enough milk to feed their babies. Mothers and mothers-in-law usually do not give rich nutrient foods to daughters for the fear of diarrhea. Babies are fed with porridge or even rice soon after two to three months of age.

(6) Inadequate vaccination of babies due to home deliveries and mothers bringing babies to farms

In several EM groups, the rates of birth at home are rather high. As a result, the achievement of first vaccination in these groups fell far below the target set by MOH. According to the 2014 MICS report, 7.4% of newborns were not vaccinated against TB and hepatitis B, while this rate among Kinh

children was only 0.5%. In particular, only 44.5% of EM newborns received acute hepatitis B vaccine within 24 hours after birth while this rate among the Kinh newborns was 84%.[37]

In Son La province, the number of communes having less than 70% getting vaccination was 15 (out of a total 203 communes); and the number of communes having less than 70% children getting all types of vaccination was 29 out of 203 communes. The corresponding number of communes in Quang Tri province was 2/41 and 5/41 respectively, and in Tra Vinh 9/69 and 13/69.[38] It is interesting to note that Tra Vinh province, although not being located in a mountainous area, has achieved the lowest full vaccination rate.

It is common in the surveyed areas that children do not get the vaccination on schedule and according to prescriptions by MOH. The reasons include the fact that mothers bring their babies to fields. Mothers may stay in field areas for 1 – 3 months making themselves and cannot be reached by health staff. As a result, vaccination cannot always be given at the right time, especially in the case of repeat injections. In some cases, due to language barriers or illiteracy, EM mothers are not keen to take their babies to CHCs for vaccination. Moreover, it is the husband who decides if the baby should get the vaccination or not.

> *"The rate of vaccination within 24 hours of birth is low due to, amongst other things, the decision of the husband. Mothers may want their babies to get the vaccination, but they need to wait for decisions of their husbands. Otherwise, they would not let their babies get the injection. Or, they would not do either, if the husband does not take them to the CHC. The vaccination depends a lot on the husband"*. (TLN, a health staff in Dak Rông).

Another barrier to vaccination in remote areas is a lack of vaccine storage equipment. Vaccine is kept mostly in small fridges at CHSs making it only possible to give vaccinations there, but not in remote villages. Many CHCs do not have cold storage equipment. As a result, health staff combine vaccination rounds when they want to go out to more remote villages.

4.4. Barriers to examination and treatment of NCDs[39]

The findings of FGDs and in-depth interviews with local health workers and people, and health center surveys showed a range of barriers. Some are common to all types of diseases while others are specific to certain types of disease (e.g. Tuberculosis, or cervical cancer).

(1) Limited awareness and knowledge of NCDs

- ✓ **Unawareness of one's own conditions**

Unawareness of health conditions is a main barrier to early and timely treatment. Patients who took part in FGDs, whether they belonged to the Kinh or EM groups, stated that they were unaware of their health conditions. Initial symptoms of high blood pressure (hypertension), lung disease (pneumonia), and diabetes were believed to be those of other common diseases (cold, headache,

[37] Vietnam MICS Report 2014, p. 83

[38] CEMA, Report on socio-economic survey of EMs, 2015

[39] In this section, the assessment report on local non-communicable diseases/trace conditions will focus only on diseases and roles proposed to be played by CHCs such as hypertension, diabetes, cervical cancer screening and continued TB management, and provision of nutritional care, immunization and medical care packages for children. Package delivery, nutritional care and immunization for infants will be analyzed in Section 4.4 of this report "Barriers to accessing maternal health services in primary health center".

fatigue, and coughing). Therefore, they did not go to medical stations early enough. Only when diseases become more severe, to a more unbearable condition, they decided to visit doctors or were hospitalized as an emergency case. Only then had they discovered that the underlying condition is related to some dangerous disease, such as hypertension, pneumonia or diabetes.

> *"I had a lot of coughing, dizziness and headache 3-4 years ago. We all thought that it was a sore throat and I did not pay enough attention to it. I suffered from constant headache but did not think of hypertension. After a terrible headache, I was hospitalized. After examination, the doctor said that I need immediate hospitalization because my blood pressure was 200 mmHg"* (In-depth interview with a Thai woman, Na Pa, Sap vat commune, Son La province)".

Participants of FGDs in Yen Chau commune (Son La) and Kim Son commune (Tra Vinh) reported that diabetes was not common in their communities before 2005. That explains why there was little awareness of the disease in the communes. Tuberculosis and mental illness tend to have more visible symptoms. But hypertension, diabetes, and cervical cancer are often silent, therefore many people are unaware of their conditions.

> *"I've contracted diabetics for nearly a decade. When I first got the symptoms, I did not know what it was. I always felt thirsty; my mouth was dry; I lost weight, and always felt tired. But, I thought it was due to headache or dizziness. I took vitamins. That lasted for more than a year, and I lost over 10 kgs. I felt dizzy more often and even fell down while walking. My children brought me to Yen Chau Hospital. After taking a few tests, the doctor told me that I had diabetes and had to stay in the hospital.* **(**an elderly Kinh woman, FGD Chieng Hac commune, Yen Chau district, Son La)**.**

> *"I don't know", "do not know anything", "never heard about it" are common answers from H'mong women in Hang Hoc, Chieng Hac village, when they were asked "Do you know about the diseases relating to women, and hypertension and diabetes?"*

Survey results in the three provinces confirmed the findings of the WHO diabetes report and the 2008 National Survey of High Blood Pressure that awareness and efforts to control the hypertension and diabetes in Vietnam remain low. As many as 51.6% of the hypertension patient population (approximately 5,7 million people) were unaware of their conditions.[40] More than 3 million people contract diabetes in Vietnam, but 63.6% of them do not know about their conditions.[41] Limited awareness indicates the need for early screening.

- ✓ **The belief that NCDs are not dangerous**

Some health staff stated at FGDs that, in addition to limited awareness, people also believe that NCDs are not serious.

> *"People in my hometown are very careless. They often wait until it is too late because they do not fully understand seriousness of their problem. For example, I've just measured the blood pressure of a patient and found that it was very high, in the range of 220 mmHg – 230 mmHg. I asked him to stay in hospital immediately, but he wanted to drink first. "I cannot die yet, this is just a normal disease", said the man".* (Head of CHS - FGD in Sap Vat commune, Yen Chau district, Son La).

[40] Pham Thai Son, 2014. Hypertension management model, Presentation at the 14th National conference for Cardiovascular diseases, Ha Noi, 2014

[41] WHO. Health statistics and information systems. Global Health Estimates for the years 2000 - 2012: http://www.who.int/healthinfo/global_burden_disease/estimates/en/

In a different case, an elderly Thai woman who interpreted the words "living with diabetes" in her own way.

> *"I heard on TV that diabetes patients can live with the disease, so I think that it doesn't kill us instantly. It is not dangerous".* (In-depth interview, Na Pa village, Siep Vat commune, Son La).

A member of staff in charge of monitoring NCD/trace conditions at the district health center also expressed concern about limited attention and awareness of NCDs. That would have some undesired impacts on efforts to seek treatment.

> *"Being in charge of NCDs at the CHS, I find that people don't pay sufficient attention to these diseases, including those who have contracted them. Thanks= to our campaigns, people become more aware about it now. Patients understand more than others in the community, but they only go to the hospital when everything gets really bad. Many people think that it is harmless. Very few people understand consequences of NCDs, such as diabetes or cervical cancer."* (A health worker - Yen Chau - Son La Health Center).

(2) Many patients do not follow instructions of health staff on examination, follow-ups and treatment

- ✓ **Non-adherence to prescribed re-examination and medication schedules**

Compliance of instructions on examination, treatment and disease prevention is desirable. However, very few patients follow re-examination schedules and other instructions on disease preventive measures for diabetes and hypertension.

Health staff in Huc Nghi and A Vao communes reported that many hypertension patients do not follow medication schedules because they work far away from home or live far away from CHCs.

> *"Hypertension patients are invited to come to CHS on a monthly basis to get medicaments. But they don't show up regularly. Those who live nearby come more regularly. Others who live far away don't come every month. Some others, who work far away don't come either. But in the end, they all come back because their conditions get worse."* (Head of Huc Nghi CHC, Dak Rong District, Quang Tri)

> *"Sick people like us are expected to have tests and examination every month. But I have to work, and the trip is too long. It is not only me. Everyone else hesitates to go. We may even be asked to stay in the hospital. Who would earn an income if I stay in the hospital?"* (Female patient – Son La).

> *"I have to go to the district hospital. I cannot get the medicines at CHS. But I rely on my grandchildren to take me to the hospital. If they can take me there, I would go. I don't have so much money like Mr. V (another participant from the FGD), so I cannot purchase the medicines from nearby drug stores. So, I don't take medicine regularly."* (Elderly female patient, group discussion, Son La).

- ✓ **Failure to adhere to medical advice to prevent and mitigate high-risk factors.**

A doctor from the Dacron Health Center (Quang Tri province) said that local people still ignore risks of hypertension and keep drinking and smoking excessively. Both EM men and women smoke self-grown tobaccos. This is a deeply rooted habit that is not easy to get rid of. Health staff in two CHSs in Son La province stated that consumption of self-brewed corn alcohol is very popular. Patients keep

consuming alcohol, sweet foods, and sticky rice that cause and increase the severity of hypertension and diabetes:

> *"At ceremonies, women also drink a lot, maybe just slightly less than men. I have hypertension, but if there is any festival in the village, I also drink a dozen cups. I know it's not healthy, but it is hard to quit drinking."* (Thai women, Na Pa, FGD - Son La)

The habit of drinking sugarcane juice and eating sticky rice all year round makes treatment of diabetes less effective.

> *"Over the last two years, the number of diabetic cases received at our clinic has increased. The Thai people work hard and have an active life. But they eat sticky rice that has the highest sugar content of all rice varieties all year round. Sticky rice keeps people full for a long time. They don't need as much food as consuming other types of rice. Also, sugarcane is grown a lot in Son La. People get used to eating sugarcane. It is not easy to stop."* (FGD, Yen Chau hospital).

People are inadequately informed about the consumption of sticky rice and sugarcane juice. Communication has not reached remote villagers, especially Hmong (Hang Hoc village) and Thai communities which are 10 km away from the commune center.

> *"That is really scary. I didn't know it until you tell me. I have diabetes. As the doctor told me to reduce consumption of rice and sugar I switched to sticky rice and sugarcane juice. I didn't know that the risk has even increased."* (Elderly women, Kinh, Chieng Hac commune, Son La)**.**

(3) Financial burden of NCD treatment and its affordability

The extent of affordability of patients with NCD / trace conditions, whether they are covered by health insurance or not, have considerable impacts on their access to health services. According to warnings of WHO and other studies in Vietnam, the financial burden of NCD treatment seems to be beyond the means of poor households in the surveyed areas. The cost of chronic NCD treatment in Vietnam accounted for about 11% of the total family income. Together with other indirect costs, this presents a heavy burden for most low and middle-income families.[42]

Even insured patients have to spend extra cash each time they get treatment at district or provincial hospitals. Poor people in Dacron district do not go the provincial hospital for treatment, while most NCDs are not treated at CHCs, except hypertension.

> *"If needed, we transfer patients to the district level, but they don't have money to go."* (Huc Nghi CHC staff, FGD, Quang Tri).

Due to limited financial resources, poor patients who have tuberculosis do not stay in hospital until the disease is cured off. The Director of Tra Vinh's Provincial Health Department said:

> *"There are many tuberculosis patients in Tra Cu and other districts in Tra Vinh. It is especially worrisome since the bacteria are now drug-resistant. Many poor patients cannot afford a good nutrition scheme; at the same time they need to work hard to support their families. That is why they stop the treatment as soon as they get a bit better. They insist in going home, or decide to escape from hospital. Proper treatment of TB takes a long time. While the treatment cost may be covered by health insurance, poor patients still want to work. That is*

[42] Hyacinthe Tchwonpi Kankeu and associates "The financial burden from non- communicable diseases in low and middle income countries: a literature review" (http//www.health-policy-system.com (2013).

why they want to stop prematurely. Premature termination of medication makes the disease relapse and become drug resistant. Without proper control, the disease would spread in the community making the situation a lot more dangerous then."

Doctors at district hospitals and health clinics cited another reason to explain why patients of TB, diabetes or hypertension do not want to go to hospitals or do not like prolonged treatment period: their economic conditions. The extra spending on medicaments that are not covered by health insurance, meals, and transport has discouraged people from getting proper treatment.

> *"I have to go to the hospital several times a year during the last five years. Although I have insurance, I still have to spend millions of dong every time I go. It is really discouraging. But I have to take care of myself. How can I rely on someone else?"* (A male patient of chronic pneumonia getting treatment at the Department of Internal Medicine - Tra Cu district - Tra Vinh).

The road conditions, 8 km, from a Thai village in Son La to CHS are very poor. Elderly women, if they want to go to the health center, need to rely on their grandchildren. Due to some hardships, an interviewed lady stated that she would give up the treatment:

> *"I know that I need quality medicine, that I need to spend more and that I need to be more patient. But there are only few people in my family [who can help]. My husband has to do all the farming because I cannot do anything. My first son went to look for a job in the city but died in an accident. The younger one work in Hanoi. We had a bad corn crop last year. There was not a lot to sell and I don't have money for treatment. It is almost hopeless now. I hope my son would send me some money, but nothing is certain."* (Female Thai with hypertension, bronchitis, back pain – in-depth interview - Na Pa village, Son La).

Cervical cancers can be cured if it is detected early enough. But women need to do gynecological test or register for an annual cervical screening service. But gynecological screening and cancer screening can be done only at provincial hospitals in Son La, Quang Tri and Tra Vinh. Given the income level in rural and mountainous areas, the associated extra costs are substantial, but not covered by health insurance.[43]

(4) CHSs fail to meet the demand for NCD examination and treatment

- ✓ **Inadequate facilities for treatment of NCDs/trace conditions in most CHCs**

Communication and consultation on diseases and preventive measures are considered an indispensable activity in provision of medical services to NCD patients. Patients who need gynecological examination, TB examination, or hypertension often need specific consultation regarding food intake, exercise and preventive measures. They also need updated information on the diseases and medication. Tuberculosis and gynecologic patients often want private counseling.

The investments are not even among CHCs. There are new investments, less than 7 years, in A Vao and Huc Nghi (Quang Tri), and Chieng Hac (Son La). While the mentioned CHCs have 14 separate rooms for private consultations, other CHCs have fewer and smaller rooms. In such smaller CHCs, it is often the case that one room is used for multiple purposes, including gynecological examination, delivery and counseling. They do not have water tabs for hand cleaning. Old and poor-quality health advice posters are hung on walls. There are no private rooms for personal consultation in old CHCs.

[43] Service fee, as found by SA, usually varies between VND 1.5 – 2.0 million, excluding expenses for travel, food and treatment services.

Gynecological examination room and other generalist examination rooms, Sap Vat commune, Yen Chau district, Son La province.

Health check-up for children at Chieng Ha commune

✓ **Lack of patient's trust in service quality at CHCs**

FGDs, especially among the Kinh groups in the five surveyed communes, indicate that the service quality is not adequate due to a lack of specialized NCD equipment and skilled staff. This explains the low level of patient's trust in CHCs.

> *"Delivery of good health service relies on adequate equipment and skills, i.e. facilities and professional competence of medical staff. These are needed to treat diseases that you mentioned (NCD disease). As you see, there is nothing here in this CHC (Chieng Hac commune clinic). There is neither sugar content meter nor test equipment. How can diabetes and hypertension patients have any trust in the CHC service? There is no specialist doctor, either. How can medical staff examine patients, by watching them? What I mean is that patients would only come here for consultation if there is enough equipment and skilled staff."* (Elderly Kinh man, Chieng Hac commune).

✓ **Medical staff's inability to use simple equipment due to lack of training**

Blood pressure monitor is a basic tool that is needed not only for NCDs but also for antenatal care and many other diseases. However, due to lack of training, the village health workers, including the head, in Chieng Hac Son La do not know how to use the instrument. Therefore, they cannot help patients although the CHC has the equipment.

> "The province has received 17 blood pressure monitors recently. I don't know who the donor was. The monitors were provided to CHCs, but nobody can use the equipment because we have not been provided with any training." (Head of Chieng Hac CHC, Son La province).

✓ **CHCs failing to provide basic medicaments and simple glucose measuring meters**

There is no test equipment or medicament for diabetes in CHCs in the three provinces. Patients usually go a long distance to district hospitals for treatment.

> *"I have long contracted diabetes. I don't go to the CHC because there is nothing there. Nobody can tell me about my health status because they don't have test equipment. How can they give me any medication instruction? The only choice is to go to the district hospital although it is a long distance."* (Elderly woman, Chieng Hac - Son La)

Despite Circular 31/2011/TT-BYT stipulating that a number of diabetic drugs be made available at CHCs, the reality is a different story. A member of staff from Yen Chau district hospital explained:

> *"Diabetes drugs are on the list of insured drugs to be provided at CHCs. However, no CHC has requested such drugs. The simple reason is that CHCs don't have test equipment and cannot*

prescribe as a result. Some CHCs don't even have specialist doctors. All patients are referred to the district hospital." (Health staff, Yen Chau District Hospital, Son La province)**.**

"Prior to 2015 we had a simple blood glucose meter. Then we received one which now doesn't work anymore. So, in doubtful cases, we refer the patient to the district hospital. There is no way to measure anything or prescribe any drug." (Grade-1 specialist doctor, A Vao CHC head, Quang Tri Province)**.**

Worse than in Chieng Hac Commune (Son La), and A Vao Commune (Quang Tri), village health workers in other locations such as Vac Vap and many upland communes in Son La province do not have any medical equipment, such as scales, measuring tapes (for regular checkup of babies) and "clean delivery" packages. Blood pressure instruments are not available. At the Kim Son CHC (Tra Vinh province), basic tools such as scales, rulers, medical bags are not replaced on schedule. Medical staff are left with nothing that they can use.

Elderly Thai women in Na Pa village (Son La Province) found it a real challenge to go to the district hospital, which is 10 km away, on a monthly basis given poor transport conditions, especially in the rainy season.

"I cannot go to the hospital myself because I have back and leg problems. My husband or children must take me there. It is not convenient being dependent on someone's help. I hope that I can get the treatment near my home but do not know when this becomes a reality." (A Thai woman having diabetes and high blood pressure, Na Pa - Son La)

For elderly Hmong women who live even higher on the mountains, it is more challenging to visit doctors at CHCs or district hospitals.

"The Sap Vat village is high in the mountains. People can manage to walk in the dry season, but it is impossible to move around in the rainy season on a steep slope. It takes half a day of walking before anyone can reach the CHC. It is not easy to convince people to get an examination. Fortunately, we have no diabetes patient yet." (A CHC medical staff - Son La Province)**.**

However, even district hospitals face shortage of drugs and skilled staff as well.

"We are facing some challenges regarding cerebrovascular and cardiovascular treatment. We don't have enough specialist doctors or technicians. We have more and more cardiovascular and hypertension patients in recent years. We do have blood pressure measuring equipment, and blood glucose measuring meter, and heart rate measurement equipment. But we don't have specialist doctors, so most cardiovascular cases must be transferred to Tra Vinh or Ho Chi Minh City." (Doctor at Tra Cu CHS – Tra Vinh province).

"We don't have specialist doctors for cardiovascular disease, diabetes or high blood pressure. All patients are referred to the general internal medicine department. But as far as I know, we don't have insured diabetics drugs. In Son La Province, we don't even such drugs ready at all time." (Internalist doctor, Yen Chau Hospital)

People rely on personal connections, if they can, to help themselves.

"I have hypertension. Fortunately, my nephew is the head of a nearby CHC, who from time to time comes to look after me. Our own CHC is far away and staff cannot really help. They don't even know how to explain health conditions to patients. If you have a headache, what they do

is to give you some pills. So, I rely on my nephew's advice and purchase the drugs myself." (Female, Thai EM, FGD in Na Pa - Son La province).

Specific barriers to tuberculosis and cervical cancer treatment

- **Barriers against TB patients**

(5) TB patients' reluctance to have tests at district hospitals due to financial burdens

People suspected to have TB are referred to district hospitals because CHCs cannot do the sputum test. WHO warned that TB is returning in many countries. In 2015, MoH issued Decision 4263/2015/QĐ-BYT providing regulation on "The Directly Observed Treatment, Short Course" (DOTS). Accordingly, CHCs are supposed to follow the prescribed steps and test the sputum of patients in question. However, by 2018, CHCs in the five survey provinces had not done these tests but referred patients who had coughing and bleeding for longer than 3 weeks to district hospitals as per Moth's instructions in 2014.

It became evident from interviews that CHC staff are not yet capable of doing DOT or giving TB prevention counselling effectively. Several causes have been mentioned:

- Lack of test equipment[44] / sputum smear (no, or unusable microscope)
- Lack of sputum smear technician due to limited headcounts
- Lack of staff communication skills regarding TB preventive measures.
- Lack of private consultation rooms for TB patients while this group of patients wish to have some privacy.
- Lack of training given on community-based TB control resulting in poor records and evaluation, if any.

TB treatment entails a heavy financial burden for many patients, especially poor patients with no insurance. An average cost of a normal TB case is VND 50,000 per day. Apart from TB medicine, patients also pay for supplements, liver medicines, and symptom treatment drugs (for example, TB patients with diabetes or liver and kidney diseases). In drug-resistant cases, costs could increase dozens of times, while the prescribed duration of treatment can last as long as eight months (FGD with

A head of CHC stated:

"We trained staff on sputum testing but he has long moved to live in another province. There is no one here who can do the job. We have recently received a microscope but cannot do anything." (Head of CHC in Chieng Hac, Son La Province)

"We don't have many new TB patients now. Our patients are existing ones. But we cannot do the DOTS as required by MoH. We don't have staff; there is no annual training. We don't have any equipment, not even a microscope." (Head of CHC in Sap Vat, Son La Province)

The Director of Tra Vinh Provincial Health Department is very concerned about consequences of patients not going to the upper level for examination or are not cured off. That would make TB drug resistant. A return of TB to the communities would be disastrous.

[44] Sputum test by DOTS is a is a passive method to detect tuberculosis patients after a suspected cough for prolonged symptoms, coughing blood of people suspected of tuberculosis

"It is really hard to convince someone to go for examination in case he or she shows some indications of TB. They don't want to go a long distance to the specialist clinics, and often try to avoid it." (Director of the Tra Vinh Department of Health).

(6) TB patients are not covered with health insurance if they do not go to the listed hospitals or CHCs

Currently, costs of TB drugs and treatment are funded by the National Target Program for TB. Considering the current constraints, the resources of the national target program will be diminishing putting TB patients in an even more difficult situation. If they do not go to the listed hospitals, their treatment costs will not be paid by health insurance.

As of the beginning of 2018, basic TB drugs have not been paid for by health insurance. Persons wishing to have a TB test must go to registered health service providers which have signed contracts with Vietnam Health Insurance. If patients want to go to the district hospital, they need to be referred by CHC. Therefore, it is important for Vietnam Health Insurance to consider paying insurance at the commune level, and for MOH to issue guidelines for TB prescription at CHCs in order to achieve objectives of the national target program by 2020.

(7) Babies born at home do not benefit from TB vaccination

Reports submitted by CHCs taking part in this assessment show a small number of new TB cases, but CHC heads are worried about a likely bigger number of cases due to the alarming level of smoking, poor nutrition conditions and the fact that many people have not been diagnosed. Potential TB patients may pose high risks at home, especially in provinces like Son La where many mothers still deliver at home and babies do not get vaccinations as they should.

Data provided by two CHCs in Sap Vat and Chieng Hac communes (Yen Chau district) showed that there were 62 home delivery cases in the Hmong and Thai groups 2016 and 2017. As many as 17 of these 62 cases were attended by a medical attendant, but many babies were not brought to an immunization point in the village.

"They belong to a religious group whose belief is that one doesn't need medication; nor does one need to work; so they don't want to get any type of vaccination. Hmong mothers want their babies to get vaccinations, but they cannot do it without the consent of their husbands." (Sap Vat CHC head, Son La Province).

Health reports of Tra Cu District show that 100% newborns received VGB vaccinations in 2017, but only 84,5% received the same in 2016. There is an increased risk of infection in communities where there are silent patients. Treatment will not only be a financial burden on the families, but also reduce resources of society which would have been more effectively spent on TB prevention and treatment.

- **Barriers to detection and treatment of cervical cancer**

(8) Lack of CHC guidelines on screening for early detection

Without early screening, it is not easy to recognize symptoms of cervical cancer. As there are no obvious manifestations in early stages, patients often mistakenly consider cervical cancer one of the gynecological disease. The National Target Program for Cervical Cancer Prevention has set the target that by 2025, 70% of CHSs will be able to screen and detect early cervical cancer using Test VIA (Acetic acid precipitates and infiltrates abnormal epithelial cells - large nuclei or nucleus). However,

as of today, MoH has yet to issue guidelines for CHCs to conduct cervical cancer screening and examination.

As a result, people living in rural or remote areas, if they suspect their conditions, cannot find service providers. At the same time, CHCs rely entirely on campaigns and reproductive health teams from district health centers.

> *"I am the head of this CHS, but I am not a gynecologist myself. We have never received any guidelines on cervical cancer screening. CHCs cannot provide gynecological examination or treatment; nor can we diagnose cervical cancer. We rely on district population and family planning teams to do this job. But, we haven't seen them for three or four years. Probably they face funding problems."* (Head of Kim Son CHC, Tra Vinh Province)**.**

Participants in FDGs in Tra Vinh and Son La stated that it would be easier to recognize the symptoms of tuberculosis than those of cervical cancer problem. This is true to both patients and CHC staff. The Director of Tra Vinh Provincial Department of Health, who is the program director of "Cervical cancer screening for women in childbearing age",[45] said:

> *"The early symptoms of cervical cancers are often hidden. As a result, many people confuse them with gynecological issues when there is some itching or vaginal bleeding. Many are diagnosed with abnormalities and referred to district hospitals, but they don't follow up with the next visit. Ignorance has prevented women from treating the disease early on."* (Director of Tra Vinh Department of Health).

> *"Women in rural areas don't understand the cervical cancer. In an abnormal case such as discharge, they usually help themselves using hygienic liquids, or purchasing drugs from nearby drug stores as they would treat other gynecological diseases."* (Yen Chau Hospital staff - FGD).

A Hmong girl said, *"I have never heard of this disease (cervical cancer). I think that many other Hmong women don't know that either*" (Thao Thi C, 24 years old, Hang Hoc - Chieng Hac - FGD).

(9) Reluctance to have gynecological examinations resulting in reduced chance of early cervical cancer detection

Some Kinh and Khmer women taking part in FGDs stated that they were shy talking about genital problems or going to see doctors. Another factor contributing to their reluctance is the long waiting time. These, if not properly addressed, are major barriers to early detection of cervical cancer.

> *"Some people would go to CHC to get help. I know that many women have problems such as itching but don't tell because they are shy. We don't like to go to the hospital, partly because hospitals are too crowded. We only go there when it is getting really serious."* (FGD with Khmer women in Kim Son - Tra Vinh).

> *"No, I don't go to the obstetric examination. I need permission of my husband. But even if he lets me go, I don't want to go."* (A Hmong woman - Hang Hoc - Son La).

(10) Customs also limit chance of early detection among Hmong women

[45] A VND 500 million program funded by the provincial state budget to be implemented in 30 hamlets; each hamlet will provide 50 names of women in their productive age (15-49) for gynecological examinations and PAP Smear screening for cervical cancer.

As a tradition, Hmong women don't show their body to stranger even during examination or delivery. That has prevented them from having cervical cancer detected early on what is essential to increase the chance of successful treatment. A teacher in the Hmong area of Sap Vat said:

> *"EM groups such as the H'mong do not show their genitals to strangers. Water is scarce in the Hmong areas that are located high up in the mountains. That is compounded by the habit of inadequate body cleaning. One may have a shower or clean oneself every two to three days. Women don't go to doctors if they have gynecological problems. In many cases, the husband doesn't allow his wife to get examination. The Thais live in lower areas where water scarcity is no problem. But water is not clean. Diseases cannot be detected because women are afraid of having a checkup. They help themselves with pass-on experiences."* (Female, Kinh FGD, Sap Vat, Son La).

> *"Hmong women, if they see a male doctor, would run away. We need to mobilize female doctors. Even then, it is not easy to get them agree to examine. Note that they only come to the hospital when it is already very serious. Otherwise, they would have stayed home."* (CHC staff, Son La).

(11) Lack of medical staff with intensive cervical screening skills at district hospitals

Screening, under current conditions in Vietnam, is an effective way to avoid and treat timely cervical cancer. However, as cancer screening is not popular, a gynecological examination combined with PAP smear is considered a solution for early detection of cervical cancer. The assessment of the three survey provinces shows that women in mountainous and rural areas facing many challenges even if they go to district hospitals.[46]

According to representatives of the visited district hospitals, a particular barrier for women seeking early detection of cervical cancer is a lack of specialized cervical screening staff at district hospitals.

> *"We don't have enough equipment, but the bigger concern is a lack of trained staff who can perform cervical screening. We don't even have enough midwives. I am in the hospital management, but also have to help as a midwife. We serve thousands of women in the region but are facing a serious HR problem. Some wealthier patients opt to go to Hanoi for better treatment."* (Deputy Director of the District Hospital, Son La province).

The district hospitals in Tra Vinh province are facing the same problem. In Dak Rong district hospital (Quang Tri Province), trained staff have been transferred to take other jobs due to lack of equipment. They need retraining now if they want to resume their previous job of cervical screening. According to doctors, only provincial and regional hospitals are equipped sufficiently to perform cervical screening. But going to the provincial hospital is a serious challenge, especially for EM women due to their financial burdens and domestic workload.

(12) Constraints in implementation of health insurance policies: Inadequate drug distribution schedule does not support prolonged nature of NCD treatment at the commune level

While TB patients receive drugs every 30 days (under the National Target Program for TB Prevention), the drug distribution schedule for insured hypertension patients shows some shortcomings. FDG participants, from both Kinh and EMs, stated that patients would be referred back to the commune level after they have received treatment at the district level and their

[46]At CHSs of the three provinces, the obstetrician or midwife can only examine common gynecological diseases. If abnormal signs are found in the gynecological examination, they can only refer the patient to the district level.

conditions have been stabilized as a result. But the schedule for drug dispensing at the commune level may cause some adverse impacts.

The drug dispensing period following each examination is deemed too short and not aligned with the prolonged/chronic nature of NDC treatment. In Son La and Quang Tri provinces, drugs are provided enough only for five days, while Tra Vinh provided drugs enough for 10 days. Patients may not have drugs if they do not come back for examination during the next 5 or 10 days, unless they can afford drugs themselves. As a result, patients may need re-examinations too frequently. For that reason, the chance of incompliance with re-examination instruction may increase.

> *"I receive drugs enough for the next five days each time. It is too far to go back to CHC. If I run out of drugs, I purchase it myself, but only if I have money. If not, I would skip. If there is someone who can take me to CHC, then I would go. I know that skipping is not good, but I have no other choice."* (Thai women, Na Pa, Sap Vat - Son La).

> *"I think that the current practice is not adequate. Patients have to travel too much. If you are close to CHC, you can come any time, but if you live in a remote village, you cannot. Many people fail to comply with the medication schedule partly due to this practice. This needs to change."* (Male health workers - Health center - Quang Tri).

> *"The distance between CHC and the furthest village is 25 km, and the distance to the district hospital is 75 km. You can see that the drug dispensing practice causes inconvenience. It is a fact that many patients don't come to collect drugs."* (Head of A Vao health station).

Accordingly, patients go to CHC three or four times per month. Although they recognize the problem, CHCs still have to follow the rule. The head of a CHC explained:

> *"It is the rule of the health insurance service. If we don't follow, they wouldn't pay. As a rule, the maximum insured amount per doctor visit is VND 130,000. If you add examination fees to it, the total amount is VND 163,000. And the maximum time limit is five days. This is a new regulation to reduce the risk of insurance abuse. I also understand that there is a new rule applicable in the whole province. While hospitals at higher levels retain 80% of the insured drug costs, CHCs can disburse only 20%. As a result, the drug amount to be distributed to patients is very small."* (Head of Commune Health Station - Son La).

Facing the situation, patients have only two choices left—skip the medication or purchase drugs themselves. A Kinh person from Chieng Hac commune commented:

> *"I find it very troublesome. Long-term treatment needs long-term medication. We don't even receive drugs at CHC because they don't have the drugs. Think about going a long distance to the district hospital to receive a few capsules. I have a salary and can afford myself, but others in the EM communities cannot. The government should change this troublesome policy."* (Elderly man, Chieng Hac commune, Son La).

✓ **Different lists of insured drugs at the commune and district levels**

There are different lists of insured drugs for the same disease at the commune and district levels. Patients suspect as a result that district hospitals dispense higher quality drugs. They refuse to go to CHCs partly because the insurance service allows patients to go to either level. This is also the opinion of the Director of Tra Vinh Provincial Health Department:

> *"As an example, hypertension and diabetes patients may receive different drugs if they go to district hospitals. And once getting a different drug type at the district hospital, they don't*

want to go to CHCs anymore because they think that district hospitals provide better ones. This takes place in several locations. Another reason is that hospitals are nowadays compensated by the health insurance with reference to the number of insured patients they serve. As a result, hospitals seek ways to attract patients. Patients tend to compare district hospitals with CHCs. And if they need to go again, they will choose district hospitals." (Director of Health Department, Tra Vinh).

Staff at Yen Chau district hospital said that drugs are dispensed for a period of 30 days, with an exception of two hypertension drugs— Nifedipine and Amlor that are provided for five days only. This difference is drawing patients to district hospitals because of their perceived higher quality drugs and the longer dispensing interval.

Heads of CHCs in Son La Province advised that they receive drugs from district levels depending on the treatment schedule of each disease and on the drug availability at the district level. As a result, some patients may not receive the drugs they need at the district hospital. Access to drug is not the same everywhere. While patients in Sap Vat commune largely receive what they need, patients in Chieng Hac commune have a lot to complain. *"I have hypertension, but only get cerebrovascular medication. So, I have to go to the district hospital"*, said a patient.

(13) Very few CHSs can provide prevention, early detection and community-based long-term management services

- ✓ **Active screening has not replaced passive screening, and there is no integration of exercise and treatment**

It is common that patients only come to CHCs in their later stage (passive way) and then are referred to district hospitals. When their conditions are stabilized, they are referred back to CHC again. Doctors at the Dacron District Health Center believed that this practice is inadequate. It is very much like treating a normal disease and hence not effective.

NCDs develop gradually over a long period. Early detection strategies (screening), monitoring, and medical and non-medical treatment need to be put in place. Treatment procedures need to be developed for each type of NCD and start at the community level and CHCs.

"We need facilities. We don't need medicaments. These diseases don't require medicaments to cure. They are only supplements. We need facilities for daily exercise. In addition, one can take medicaments at home, and take care of the nutritional regime. This needs to be done in a professional manner and investments. In CHCs, we only have some beds. Patients can come and lie but cannot do much on the beds. That is how I see it." (Director of the district health center - Quang Tri).

Sharing the same view, other heads of CHC found it important to detect the diseases early on, regularly monitor every development, and at the same time do proper exercises. However, many CHCs are too small having no separate rooms for specific functions such as examination and communication. There is no way that they can implement the full procedures, for instance as prescribed by MOH procedures on NCDs since 2010.[47]

[47] Of the five visited CHCs in the three provinces, only Chieng Hac CHC (Yen Chau, Son La) has been upgraded recently where there are separate rooms for different purposes. Other CHCs have to use rooms for multiple purposes. There is no tap water in the CHCs.

> *"As you can see, we have only one room for all purposes. We provide all examination, consultation and treatment services here, in this room. How can we raise awareness of the patients? Beds are in poor conditions. On elderly examination days, we don't even have enough seating places. We need to erect additional tents for patients. Forget about inviting women to gynecological examination or cancer check-ups because there is no private room for them."* (Head of Sap Vat Commune Health Station – Son La).

There is a lack of resources at the commune level for both NCD prevention and communication.

> *"Our annual recurrent budget is VND 25-30 million. Part of that, VND 3-5 million, is provisioned for communication. This is far from enough. Most NCD communication activities take place at the commune level such as the NCD Day, the No-Smoking Day, and the Cancer Prevention Day. But all we can do is to spread information. We receive support from the National Target Program on TB regarding the TB communication. Hypertension management has only started at the commune level recently. We want to improve this, but it is really a challenge."* (Commune leaders and CHC heads)

Respondents also raised issues of insufficient management, and supervisory and treatment capacity of commune and village health staff.

> *"If you want patients to come, you have to understand how to communicate, how to consult, and you have got to do the basic things such as measuring blood pressure when needed. But here in the village, our health staff cannot do it. They don't know how to explain hypertension, heart diseases, or diabetes to potential patients because they haven't been provided with training on it."* (Chieng Hac Village Health Staff, FGD in Son La).

The lack of a disease management system has resulted in an inadequate management system that does not meet requirements regarding record keeping, monitoring and evaluation of the disease development.

> *"Our job is to manage hypertension and diabetes patients in the commune. We also need to help people aged 60 and older. But we can only do it twice a year and dispense insured drugs on a monthly basis. Monitoring relies on record keeping which we have delegated to the village level because they are closer to patients. But village health staff don't have any equipment. They also have to do a lot other jobs while their remuneration is very modest.[48] In the end, many quit after a short period though they do their jobs well."* (Head of CHS Sap Vat, Son La).

(14) The MOH strategy for improved NDC prevention and control (2015-2025) requires CHCs to manage and monitor NCDs/trace conditions in the community. Records are prepared manually. A new approach is required to manage, supervise, and train human resources. Investments are needed to meet the new requirements. If health staff improve skills, patients will trust them and come to CHC to get support. Only that way, can CHCs meaningfully play their role to support the development of the health system at the grassroot level.

4.5. Gender-related issues

4.5.1. Gender analysis

[48] Village health workers in Son La Province have to do all jobs, from health monitoring, communication, promotion of preventive health to vaccinations, maternal and infant nutrition, but only receive a monthly remuneration of VND 600,000 (USD 28)).

This section provides overall analysis of some gaps in maternal health and nutrition status between women and children from ethnic minority groups and their Kinh counterparts. More specifiic information on these issues in the survey sites of the social assessment that have been presented earlier in this report will not be repeated.

There are the inextricable links between gender and health; both the biological and social construct of gender influence health outcomes. Women and men are biologically different, which affects their health needs and outcomes differentially.49 Maternal mortality is a key example where—despite being preventable—the women continue to suffer from excess premature death due to the risks of pregnancy and delivery. Poor health and nutritional status of a woman during pregnancy contributes not only to poor birth outcomes for the woman, but also increases risk of fetal growth restriction, neonatal mortality, micronutrient deficiencies, and stunting in the child at age two.50

The project will make a clear contribution to improving overall outcomes and closing inequities in maternal health and nutritional status for poor and ethnic minority women and children in Vietnam. Driven by economic growth and access to high quality health services (particularly among the wealthy), the country has successfully reduced mortality and improved the nutritional status of women and children. However, national averages mask persistent disparities for vulnerable groups. Between 1990 and 2015, the child mortality rate fell from 51 to 22 per 1,000 live births51; however, in 2014, child mortality rates in rural areas (26.5 per 1,000 live births) was more than double those in urban areas (12.9) and exceeded 50 in remote mountainous provinces exceeded but was less than 20 in the delta provinces.52 In the same 25 year period, the maternal mortality ratio from 139 to 54 per 100,000 live births,53 but remains elevated relative to the average for upper middle income (41) and high income (10) countries.54 While the national under-five stunting prevalence was 24.6%, it reached over 35% in some remote mountainous provinces.55

Increasing access to and utilization of maternal, newborn, and child health services can accelerate improvements in health and nutrition outcomes for vulnerable populations.56 Antenatal care (ANC) provides a platform for important interventions, including health and nutrition promotion, screening for and diagnosis of pregnancy risks, and disease prevention. Through timely and appropriate evidence-based practices, evidence has shown that ANC can save maternal and newborn lives.57 ANC also provides the opportunity to communicate with and support women in a critical time in their own life and in the life of their fetus. Furthermore, ensuring access to skilled birth attendance, facility-based maternity services, and essential obstetric care that is effective and of

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[49] Health, Nutrition, and Population Global Practice, World Bank. 2016. Implementing the World Bank Group Gender Strategy in Health, Nutrition, and Population: Follow Up Note. Washington, DC: World Bank.

[50] Black, R. E., C. G. Victora, S. P. Walker, Z. A. Bhutta, P. Christian, M. de Onis, M. Ezzati, S. Grantham-McGregor, J. Katz, R. Martorell, R. Uauy, and Maternal and Child Nutrition Study Group. 2013. "Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries." *The Lancet* 382: 427–51.

[51] UN Inter-Agency Group for Child Mortality. 2015. Estimation. Levels and Trends in Child Mortality Report 2015. New York. UNICEF.

[52] General Statistics Office. 2016. Statistical Yearbook of Vietnam 2015. Hanoi: Statistical Publishing House. (Table 35).

[53] Alkema, Leontine, et al. 2016. "Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group." The Lancet 387.10017 (2016): 462-474.

[54] World Bank. 2017. World Development Indicators. Online: www.data.worldbank.org. Estimates are for 2015.

[55] National Institute of Nutrition. 2016. Statistical data on child malnutrition 2015. http://viendinhduong.vn/news/vi/106/61/0/a/so-lieu-thong-ke-ve-tinh-trang-dinh-duong-tre-em-qua-cac-nam.aspx.

[56] World Health Organization. The Global Strategy for Women's Children's and Adolescents' Health (2016-2030). Geneva: World Health Organization.

[57] WHO. 2016. WHO Recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization.

good quality can help reduce maternal and newborn mortality.58 Regardless of delivery in facility or in the community with postnatal care contacts with women and children provides the opportunity for early identification of post-partum issues and the provision of preventive and promotive interventions for the mother and child. Routine immunization can reduce child morbidity and mortality, and immunization points serves as the contact point for essential nutrition and child health interventions.

In Vietnam, increasing utilization of essential maternal and child health services—as well as a focus on reducing inequities in the utilization is necessary to close the gaps in outcomes, particularly for ethnic minority populations. In 2014, the proportion of births assisted by a trained staff was 93.8% nationally, but 68.3% among ethnic minority women and 73.4% among the poorest quintile.59 60 The proportion of pregnant women receiving 4 or more antenatal care visits was 73.7% 61 but only half that (32.7%) among ethnic minorities and 38.6% among the poorest quintile, rising to 67% in the second poorest quintile and to 96% in the richest quintile.62In 2015, the nationwide full immunization rate was 97.1% and exceeded 95% in 53 out of Vietnam's 63 provinces63. However, full immunization rates fall to as low as 70% among disadvantaged groups, such as ethnic minority children (69.4%), the poorest quintile (72.2%), and those in mountainous provinces (such as the Central Highlands, 70.5%, and Northern Midlands and Mountains, 71.%)64. Increasing utilization for these populations will contribute to improving women's endowments for those with lagging outcomes.

Strengthening the grassroots-level of health service delivery will be essential to improve maternal and child health outcomes.65 There are multiple supply- and demand-side constraints to utilization of essential maternal and child health services that are particularly salient for the poor and EM populations. Rural women, in particular, face barriers in the availability, accessibility, and quality of adequate health services.66 Basic infrastructure, equipment and competencies are lacking in many communes. In 2016, only 69.76% of rural communes met the 2014 national commune health benchmarks.67 Moreover, those largely structural benchmarks do not provide any assurance that the commune health stations can deliver quality, integrated health services. Capacity to prevent, detect and manage chronic NCDs68, identify pregnancy risks during antenatal care, and provide timely response and transport in case of obstetric emergency, for example, is weak. As 2015 Facility Survey shows, there is a substantial gap between the knowledge and actions ("know-do" gap) of CHS health workers when it comes to the management of common conditions69. Promisingly, there is recent evidence that demonstrates that improvements in the supply-side of health services can lead to increasing supply of health services can stimulate demand: analysis of 2015 Health Facility Survey data shows that CHSs which (i) meet national benchmarks related to building areas and (ii) have

58 World Health Organization. 2016. Standards for improving quality of maternal and newborn care in health facilities. Geneva: World Health Organization.

59 General Statistics Office (GSO) and UNICEF. 2015. Viet Nam Multiple Indicator Cluster Survey (VN MICS) 2014, Final Report. Ha Noi, Viet Nam.

60 GSO and UNICEF. 2015. VN MICS 2014, Final Report. Ha Noi, Viet Nam

61 GSO and UNICEF. 2015. VN MICS 2014, Final Report. Ha Noi, Viet Nam.

62 GSO and UNICEF. 2015. VN MICS 2014, Final Report. Ha Noi, Viet Nam

63 These estimates are from administrative data. By contrast, household survey data show a full immunization rate of 82.4% (MICS 2013/14)

64 GSO and UNICEF. 2015. VN MICS 2014, Final Report. Ha Noi, Viet Nam.

65 The National Strategy for Population and Reproductive Health for the period 2010-2020 (Prime Ministerial Decision 2013/QD-TTg of 2011)

66 UN Women and FAO. 2014. Policy Brief and Recommendations on Rural Women in Vietnam. Hanoi: UN Women and FAO.

67 Central Steering Committee for the Census of Rural areas, Agriculture and Aquaculture. 2016. Preliminary report of the Results of the Census of Rural areas, Agriculture and Aquaculture. Hanoi: Statistical Publishing House.

68 General Administration of Preventive Medicine (Ministry of Health). 2015. Vietnam National Survey on the Risk Factors of Non-Communicable Diseases (STEPS).

69 World Bank 2016. Quality and Equity in Basic Health Care Services in Vietnam: Findings from the 2015 District and Commune Facility Survey

adequate equipment have a higher utilization rates70. Furthermore, quality monitoring under a pilot performance-based financing scheme found that it improved the quality scores of the CHS from 78% to 88% over two years71. Improving the quality of services provided to women and children is a critical next step in accelerating reductions in morbidity and mortality.72

The project will contribute to closing priority gender gaps by focusing on the poorest provinces (which have relatively high share of EM beneficiaries) and targeting the level of facilities that are disproportionately used by ethnic minorities, women, and children. The project will prioritize investing in CHS located in rural, remote communes that have not met the national CHS benchmarks. Moreover children, women, the elderly, the poor and ethnic minorities are expected to benefit more than others. Looking across the life-cycle and by gender, the grassroots health system tends to be used mainly by women of child-bearing age and young children (because the CHS have historically focused on reproductive and child health services), and also by the elderly (because the CHS are located within the community and are convenient and inexpensive for older people with limited mobility and financial means to use). Ethnic minorities tend to use the CHS for a greater share of their outpatient health visits than do the majority Kinh or Hoa population (50% of outpatient contacts in the most mountainous provinces are at CHS compared to 23% nationally). That said, by expanding the CHS's role to also include the management of NCDs, the project will likely also lead to increased utilization of CHS by men (and even more elderly people) than before, thus helping to reduce the gender gap in utilization of basic CHS-level primary care services. Finally, the criteria for selecting project provinces, for selecting communes within project provinces, and the fact that poor people are more likely to use CHS services than better off people ensures that the project will be strongly pro-poor.

The imbalance of the sex ratio at birth (SRB): The imbalance of the SRB emerged in Vietnam later than in other countries in the region, as result of the wider availability of ultrasound technology73. It is coupled with decreased fertility rates, especially in the Northern and Northern Central Region and major cities. Within a short period of time, the SRB increased from 106 in 2000 to 110.5 in 2009, 112.6 in 2013, and 115.1 in 2018.

According to the data from the General Department for Population, the SRB in the project provinces had been 118 in Sơn La; 119.9 in Hòa Bình; 115.3 in Quảng Ngãi; 112.2 in Quảng Trị; 117.5 in Ninh Thuận, 110.6 in Bắc Kạn, and 110.64 in Trà Vinh. In Quang Tri, although CHSs have not been provided with ultrasound machines, it is rather common that pregnant women go through ultrasound checks to verify the sex of the fetus in district hospitals and private health clinics with ultrasound machines, though these health facilities are far away (30 km). Abortions are conducted in many cases if the sex of the fetus is not as expected. In Kim Son commune, Tra Vinh province, provision of information of the sex of the fetus through ultrasound services is prohibited in district hospitals. People turn to nearby private clinics to verify it at a very affordable cost of 70,000 VND per check. Many local women had gone through five to six ultrasound checks during their pregnancies, to learn about the health and sex of the fetus. Theravada Buddhism does not allow women to take abortions if they know that the sex of the fetus is female. Generally, sons are preferred given their high roles in the community, religious and cultural alike. Meanwhile, in Yen Chau district, Son La province, pregnant women do not use ultrasound service often due to unavailability of nearby service points.

[70] World Bank 2018. Factors associated with utilization of health care services at Commune Health Stations in Vietnam: a study used secondary data from the 2015 Vietnam District and Commune Health Facility Survey (in progress)
[71] World Bank 2018. The Experience of Result-Based Financing in Vietnam: A case study from a pilot in Nghe An province under the Central North Region Health Support Project
[72]UNICEF and WHO. 2017. Tracking Progress towards Universal Coverage for Reproductive, Newborn, and Child Health: The 2017 Report. Washington, DC: UNICEF and WHO.
[73] Policy Brief, Factsheet and Country Profile on Gender bias sex selection: Available (2017 and 2018).

In face of the situation, the Central Party Committee's Resolution 21, dated Oct. 25, 2017, regarding population work in the emerging context, set the reduction of the SRB to an acceptable level as one of the key objectives. It calls for reviewing and improving the legislation to ban selection of fetus sex and prevent the abuse of technology to do it. In 2016, the PM approved a project to rectify imbalance in sex ratio at birth for the 2016-2025. In pursuance of this decision, MoH launched a project the same year to address the issue across the country for the same period.

4.5.2. The project's proposed interventions to reduce the identified gender gaps

The proposed project will contribute to closing gaps in women's endowments in health. The objectives and activities of the project are in line with the directions described in the World Bank's gender-related strategies. These include the WBG Gender Strategy, the East Asia Pacific Regional Gender Action Plan (RGAP), and the draft Vietnam Country Gender Action Plan FY18-22 which identifies maternal mortality and childhood stunting for poor and ethnic minority women and children as a key area of focus. Indeed, ethnic minority women face a double challenge of exclusion and risk of being left behind by the rapid changes in Vietnam's economy. On several measures, they fare worse that their ethnic majority peers and enabling them to participate more equitably in a changing economy will require reducing these gender gaps, including gaps related to access to health care services that can reduce mortality[74]. While much progress has been made at the national level in Vietnam, there are still important gaps in ending preventable maternal mortality and improving child nutrition, most importantly among poor and ethnic minority populations, and cervical cancer risk is a growing concern. Women's access to health services that can reduce mortality is constrained by both supply-side and demand-side factors.

The project will finance activities to overcome the supply-side barriers to accessing evidence-based reproductive, maternal, and child health interventions, as well as address the growing burden of cervical cancer in Vietnam. The focus on strengthening commune health services in poor and rural areas, with also have a high concentration of ethnic minority populations, is expected to have a disproportionate impact on women and children (especially those who are poor and from ethnic minorities) because they use the commune health stations more than other demographic groups. The infrastructure investments provided under Component 1 will ensure that basic physical quality standards are met for health services and provide a foundation for adequate service delivery; the investment in equipment, training, and quality monitoring under Component 2 will include a focus strengthening adherence to clinical guidelines for priority maternal and child health services that have been showing to have a measurable impact on reducing maternal and child mortality[75]. In particular, the inclusion of a "child health "tracer condition will provide the opportunity to strengthen delivery of commune-level interventions for the prevention of maternal mortality and improvement in child nutrition across the continuum of reproductive, maternal, newborn, and child health services. The "cervical cancer" tracer condition aims to provide access to essential screening services that are currently not available to most women in Vietnam.

The gender-related dimensions of the projects results will be monitored. The results framework will monitor multiple steps across the theory of change, from outputs (facilities upgraded to standards relevant for delivery of tracer condition services and providers trained in delivery of these interventions) to outcomes (increased utilization of evidence-based maternal and child health and immunization services with known effectiveness in reducing maternal mortality and child stunting).

4.5.3. Quick assessment of risks for gender-based violence (GBV) under the project

[74]Committee on Ethnic Minority Affairs (CEMA). Survey on the Socio-economic Situation of 53 Ethnic Minority Groups in Viet Nam 2015.

75 Chou, D., B. Daelmans, R. Rima Jolivet, M. Kinney, and L. Say. 2015. Ending Preventable Maternal and Newborn Mortality and Stillbirths. British Medical Journal 351: h4255.

The task team carried out a quick GBV risk assessment in the project using a tool provided by the Bank. The exercise resulted in the score of 10, which falls in the LOW-RISK category (ranging from 0-12.25), according to the guidance note attached to the tool. The following actions are suggested for the project to consider during the project preparation and implementation:

- A Code of Conduct is included in bidding documents; and
- An orientation workshop to sensitize all stakeholders on GBV.
- Strengthening GRM by developing a web page on the MoH or PPC's site that will include project related information and on GBV. The web page will have names, telephone numbers and e-mail addresses of contact persons.

V. RECOMMENDATIONS

5.1. For maternal and child care

1. Obstetric equipment should be provided to district hospital and health centers, including examination and sterilization equipment for CHSs;
2. Cold storage equipment should be provided to carry out mobile vaccinations to villages to ensure that MOH regulations are complied with. It is especially important to provide vaccination to newborns delivered at home;
3. Obstetric skills training and knowledge transfer should be provided to obstetricians and midwives; technicians should be trained to use new equipment at the district level;
4. Health staff, midwives, doctors who are members of EM groups or speak EM languages should be trained so that better help can be provided to EM patients; it is necessary to integrate communication on maternal and child care with malnutrition preventive activities;
5. CHC staff should be trained on skills in maternal health monitoring, child nutrition monitoring and health management at the commune level; and
6. Database should be developed to manage and monitor health at the commune level to detect diseases early enough at the commune level.
7. It is important to raise public awareness of the value of daughters and negative implications of the skewed SRB for society, such as anti-social behavior. Health workers should be engaged in these campaigns. And innovative measures are needed to prevent identification of the sex of the fetuses during pregnancies.

A SUMMARY OF RECOMMENDATIONS FOR MATERNAL AND CHILD CARE

	PREPRATION FOR CHANGE					CHANGE MANAGEMENT AND MONITORING	
Maternal and child care	**CHC infrastructure**	**Communication**	**Equipment**	**CHC staff training**	**Policy change**	**Monitoring indicators**	**Sources of data**
Obstetric examination and treatment	Setting up specialist obstetric rooms	Integrating awareness of reproductive health care in communication activities	Investing in obstetric and gynecological examination and treatment equipment: examination and treatment kits, gynecological examination tables, birth delivery tables, lamps, steam machines or sterilizers; ultrasound machines, cervical screening machines	Providing professional skills in examination and treatment of gynecological diseases in CHS Skills for early detection of cervical cancer	Expanding examination and treatment of some gynecological diseases in CHCs	Number of gynecological patients monitored and supervised a**t** CHCs Number of early detections of gynecological cases and cervical cancer symptoms	Annual reports submitted by district hospitals and district health centers

	PREPRATION FOR CHANGE					CHANGE MANAGEMENT AND MONITORING	
Maternal and child care	**CHC infrastructure**	**Communication**	**Equipment**	**CHC staff training**	**Policy change**	**Monitoring indicators**	**Sources of data**
Malnutrition prevention	Construction of kitchen/ cooking rooms for patients	Providing communication materials on malnutrition prevention		Providing skills for early detection and first aid in cases of low birth weight		The rate of child patients monitored for malnutrition in CHCs Weight and height at birth of babies under 2 The rate of newborns breastfed and exclusively breastfed for the first six months The rate of women giving birth at CHSs	
Vaccination		Providing adequate vaccine information	Investing in cold vaccine storage device for injections in remote villages			Proportion of children vaccinated The rate of children being examined and treated for common diseases in CHS	

5.2. For managing, monitoring and treatment of NCDs[76]

With reference to the feedback and suggestions gathered from FGDs and in-depth interviews on how to improve prevention and treatment of NCDs/ trace conditions as well as to strengthen the role of CHCs, the consultants would like to recommend the following:

Firstly, *it is important to improve procedures of early detection, control, treatment and monitoring of NCDs / trace conditions at the commune level. It is aimed at increasing the rate of early detection and integrating medical treatment with physical therapy depending on each type of NDC.* Both the supply and the demand sides need to be well coordinated, i.e. efforts are needed on the sites of both CHCs and users of health services. More specifically:

- Community awareness on NCDs should be raised so that potential patients would be more proactive and take screening measures early on. It should be avoided that patients wait until they see clinical symptoms before seeking medical services.
- Health staff, upon receiving training, will provide guidance to community members on doing simple checks at home such as: measuring blood pressures, blood glucose content, early recognition of tuberculosis, gynecological diseases, and cervical cancer symptoms. Targeted communication on the increased risks such as smoking and drinking, inadequate nutrition shall be implemented in selected locations such as Quang Tri (smoking hazards), or some districts in Quang Tri, Son La, and Tra Vinh (sugarcane consumption and drinking).
- Potential and existing patients will better understand the needs of continued treatment until their diseases are cured off. Discontinued treatment would increase the risk of drug-resistance. Patients will have to understand that they must strictly follow doctors' instruction of having monthly re-examinations and daily medications.
- In EM communities such as Hmong, Dao or Bru Van Kieu with limited Vietnamese language, it is important to have materials with more illustrations to improve communication. It is also important to have village health staff who can speak EM languages and can communicate when patients seek advice and counselling.
- Health organizations can consider cooperating with mass organizations, such as the Elderly Association, international and domestic NGOs, to implement successful health management models (with regards to health management, monitoring, physical therapy of hypertension and diabetes patients). Several health management pilots are funded by WHO in Quang Nam, Ha Nam and Can Tho[77]. Upon the project completion, workshops should be conducted to draw lessons for further scale-up in other provinces.

Secondly, *an adequate financial mechanism and health insurance compensation should be developed to remove the financial burden of NCD screening and treatment on patients. At the same time, CHCs need more resources for NCD prevention activities.* The following would need to be implemented**:**

- Vietnam Health Insurance and MOH are recommended to add early detection screening (cervical cancer, TB), several types of drug (tuberculosis, gynecological treatment, hypertension, etc.) to the list of prescription drugs covered by health insurance. Considering that several national programs such as the TB program, the cancer screening program, the population and family planning program will terminate soon, it is important that such cost items be covered by health insurance to provide continual service to patients.
- The drug dispensing schedule should be revised jointly by MOH, DOH, and Vietnam Health Insurance. The current five-day or 10-day interval is not adequate. The schedule should consider specific requirements of each type of treatment. Patient's benefits should also be

[76] Refer to Appendix 4 on Local Initiatives

[77] Refer to Appendix 3 - NCD management model in Can Tho – sponsored by WHO

considered. Management of insurance claims and health spending allocation practices should not cause adverse consequences for patients. If patients face inconvenience or excessive travel, they would give up treatment. Some villages are located 7-10 km away from the nearest CHCs and there is no motorized connection. Travel is a challenge for such communities. This should be addressed as a priority.[78]

Thirdly, *more investment is needed to upgrade CHCs, such as improvement of facilities, equipment, basic drugs, and capacity of medical staff. CHCs should be able to detect diseases early, provide counselling and treatment services and maintain health management models (medical treatment plus physical therapy, exercise). Communication will play a key role in encouraging people to visit health stations to do tests and early screening. But, first, health services need to improve to increase the trust of communities and encourage them to use services in CHCs.*

Requirements for resources and HR:

- **New construction and upgrade of facilities**: It is important to have private rooms for gynecological examination, delivery, tuberculosis examination, communication, and private counselling. It is also important to have clean tab water at CHCs. Private rooms also make EM women more comfortable coming to the CHC for treatment.
- **Equipment**: The new role of CHCs necessitates provision of equipment and device such as rapid diabetes diagnostic machines and blood pressure meters for village health staff and CHCs, microscope and sputum smear glasses; gynecological examination tables; lamps gynecological examination lamps, and others.
- **Capacity building**: Health staff, especially those working at CHCs, need better skills and knowledge to work on NCDs. It is important to provide specific training and manuals for each type of disease. The following should be considered: training on cancer screening, especially cervical cancer; sputum smear tests or TETS techniques such as VIA for CHC staff where possible; quick blood glucose measurement on simple glucose meters for all CHS staff; training on measuring blood pressure on digital blood pressure meters.
- Other important issues including communication and consultation skills on NCDs given limited capacity of village health staff. In addition, as community-based NCD detection, and treatment management are still new, substantial training and communication are needed for health staff at all levels.
- **Several basic insured drugs (such as diabetes, hypertension drugs, and TB drugs will be added soon)** need to be provided promptly and consistently at both district and commune levels. If different types of drugs are provided at different levels, patients tend to trust the higher level more than the lower one. That would be a threat to the health system itself, including this project. If that happens in regions with more favorable transport conditions, people would simply skip CHCs and go straight to district hospitals.
- MOH is recommended to issue guidelines on prevention, detection, management and treatment of NCDs at each level to establish professional standards and M&E indicators. Only then should technical guidelines be issued. Several targets on NCD prevention and early detection have been included in strategies and directives, but no corresponding implementation guidelines have been issued for CHCs. For instance, guidelines for cervical cancer and diabetes screening should be urgently completed and promulgated for implementation by CHCs.

Fourthly, *management software is needed to support consistent monitoring and treatment of NCDs by all CHCs. Health staff will record data and perform the monitoring function with the help of computer software, instead of relying on manual work as has been the case in several communes in Son La.* Monitoring and evaluation will be simpler and more accurate.

[78] Refer to Appendix 4 – Local Initiatives

Lastly, *due attention should be paid to financing issues.* As a rule, the local NCD sub-committee submits an annual budget estimation to DOH which further submits it to the Provincial People's Committee for approval. In addition, health agencies need to find ways to mobilize additional resources for various NCD communication activities, such as sport events and community activities. Efforts to prevent and control NCDs require considerable resources which cannot be met by MOH alone.

Summary of recommendations for the reform of NCD prevention, management and treatment:

SUMMARY OF RECOMMENDATIONS ON IMPROVING PREVENTION, MANAGEMENT AND TREATMENT OF NCDs

The new and strengthened role of CHCs in community-based prevention, management and treatment of NCDs (hypertension, diabetes, cervical cancer, and TB) in the project

Type of diseases	PREPRATION FOR CHANGE					CHANGE MANAGEMENT AND MONITORING	
NCDs	CHC infrastructure	Communication and consultation[79]	Equipment	CHC staff training	Policy change and development	Monitoring indicators	Sources of data
Hypertension and diabetes	Separate examination rooms Separate private consultation rooms Separate communication rooms	Promotion of medical treatment and physical exercises, change of life style Promotion of compliance with doctor´s instruction	Blood pressure meters for village health workers Simple blood glucose test meters for CHCs Communication materials.	Early screening skills Skills to use blood pressure monitors and simple gauges. Management and monitoring skills Team skills to form patient groups	Disclosure of the NCD drug list to be dispensed at CHCs 30-day interval of insured drug dispensing at the commune level. Insurance to cover NCD screening cost	1. Number of NCD patients screened annually at CHCs, disaggregated by gender: 1.1. Patients with hypertension detected; 1.2 Patients with diabetes detected 2. Number of NCD patients managed at CHSs, gender-disaggregated: 2.1. Hypertension patients. 2.2. Glycorrhea patient	Annual reports of district hospitals and health centers

[79]The MOH proposal does not support the communication activities. However, every year, under the guidance and financial allocation of district health centers, commune health stations conduct communication activities on agreed topics, including topics on prevention of NCDs.

Type of diseases	PREPRATION FOR CHANGE					CHANGE MANAGEMENT AND MONITORING	
						3. Change of drug dispensing schedules at CHSs 4. The number of patient clubs / teams formed	
Cervical cancer		Communication on importance of early screening	VIA test equipment	Cervical cancer early screening skills Communication skills	Insurance to cover costs of cervical cancer screening services.	5. The number of women screened for cervical cancer in the project provinces	
TB		Communication on risks, importance, and prevention of TB	Sputum specimen test equipment	Test / examination skills		6. Number of patients receiving screening, sputum examination service at CHSs (gender disaggregated)	
Maternal and child care	Obstetric clinic Delivery room	Communication and provision of screening services for gynecological diseases Communication on motherhood skills	Gynecological examination tables, birth tables Sterilization equipment Gynecological examination, delivery equipment Ultrasound machine	Support skills for obstetric emergency Early detection of gynecological diseases Special care skills for low birth weight infants		Percentage of women receiving gynecological examination and treatment Percentage of women giving birth at CHCs or supported by a health worker Rate of infant and perinatal mortality	Annual reports of district hospitals and health centers

5.3. Other issues

1) Proposed monitoring indicators (including gender-specific indicators).

General indicators	Rationale	Source of data
1. The percentage of CHSs meeting infrastructure standards in the project provinces	These include minimum standards for facilities and antenatal care equipment (ANC), delivery and postnatal care (PNC) equipment as well as availability of emergency obstetrics and newborn care. A better facility would attract more patients / users.	Progress implementation reports
2. Percentage change in the number of users of CHS (disaggregated by gender) in the participating provinces	Gender-disaggregated usage monitoring will indicate to which extent improvements in supply (infrastructure, training, and quality of service) has led to increased usage of health services, especially in remote and underserved provinces.	Annual reports submitted by CHCs to district health centers.
3. Number of health staff received NCD training on the spot with the support of the project	Interventions to reduce the rates of maternal mortality, infant mortality and stunting are included in the program package for trace conditions for child health Enhancing the capacity of health service providers in these areas will increase the provider's compliance with the principles of evidence-based service provision.	Reports of health stations and training institutions (district level)
4. The percentage of children in the project provinces receiving hepatitis B vaccination within 24 hours of birth	The hepatitis B coverage within 24 hours of birth is an indicator of accessibility to postpartum care for women and infants. Postpartum care within the first 24 hours provides an opportunity for early identification of maternal and neonatal complications and contributes to reducing maternal and child mortality rates. Hepatitis B immunization within 24 hours of birth is a good indicator of immunization equality. It increases the timeliness of vaccination, and better integration of immunization into the care and treatment. Only 44% of EM children and 56% of the poorest quintile receive hepatitis B vaccination (as vs 84% among Kinh and Hoa and 84.6% among the richest group); only 25% of children receive vaccination against hepatitis B within 24 hours of birth. A greater coverage of this type of vaccination will rely on a horizontal integration care. Hepatitis B vaccination need to be provided on time, while postnatal care to mother and child should be provided at home.	Vaccination reports submitted by CHCs
5. Number of deliveries attended by skilled personnel	Skill availability has a direct impact on the reduction of maternal mortality rate. Increased skilled personnel in unserved areas will help to reduce gender gaps and the maternal mortality rate.	Reports submitted by training service providers
6. Number of women and children receiving basic nutrition services	Basic nutritional services are known to contribute to the reduction of maternal and child mortality rate and the prevention and reduction of stunting.	Reports submitted by CHCs to district health centers.
7. Number of people satisfied with services provided by upgrade CHCs, disaggregated by gender	This indicator shows the perception of the improvements by the public	Project completion and final report

2) Summary of the stakeholder analysis

Stakeholder	Focus areas of the project	Project implementation concerns	Constraints	Recommended actions
MOH	The role of the MOH in ensuring a smooth functioning of the grass root health system in the national health system: - New construction and upgrade of the existing CHCs to improve mother and child care, and TB management - Develop a new role of CHCs in screening, treating and managing NCDs such as hypertension, diabetes, cervical cancer.	Unfocused investments across project provinces resulting in an overall poor impact; Uneven investment and management capacities of provincial health departments, especially disadvantaged provinces	Huge demand vs limited resources; Lack of guidelines on drug distribution and costs covered by Vietnam Health Insurance (NCD screening, treatment and management) to be implemented at the commune level; Inadequate compensation for commune health staff as a legacy of past financial regimes; Most record keeping still being done manually, and not supporting an effective management.	Provide relevant guidelines and standard for easy and consistent implementation such as criteria for the selection of new construction or CHC upgrades; Pass guidelines and monitoring indicators of medical services (screening, management of diabetes treatment, cervical cancer, tuberculosis management); Reform the financing rules at the commune level as soon as possible; Provide PCs and software to ensure a consistent management and monitoring system; Provide training on project monitoring.
DOH	Develop and improve the grass root health care system in their respective province Improve the capacity of health workers at the grass root level	Son La Department of Health: No major concern. Tra Vinh Department of Health: While CHCs will have to assume a greater role in the preventive care, the financial mechanism remains unclear resulting in bad morale of health staff and service quality despite the facility improvement.[80]	The reform of the financing mechanism applicable to CHCs is beyond the control of the provincial health department.	MOH should take immediate steps to change the current financial regime applicable to CHCs to improve staff morale; The new financial regime should be open and transparent.

[80] Mr. Cao My Phuong, Head of the Provincial Health Department explained that CHCs would play a bigger role while the budget allocation rules remain the same. Despite that 20-25% of the total health care expenditure are allocated to CHCs, this is barely enough to pay staff cost. There remains little for any other health spending. CHCs are now permitted to provide some

Stakeholder	Focus areas of the project	Project implementation concerns	Constraints	Recommended actions
District health facilities	Capital investment (facility and equipment) of district health centers and hospitals Capacity building of, technical assistance to, and supervision of CHCs	Current recruitment issue not permitting district hospitals and health centers to have sufficient recruitment autonomy, resulting in lack of HR. District staff have to perform their own jobs, and at the same time provide support to CHCs.	Lack of human resources who can perform screening services, including cervical cancer screening at the district level. The requirement of formal training may cause some problem since many CHCs do not have enough replacement staff of those who attend training courses at school.	On the job training, flexible training should be considered in cases of urgent needs for trained skills and lack of replacement personnel
CHCs	Facility upgrade and staff capacity building	Lack of trust of patients in CHC services Lack of technical assistance from the district level	Limited capacity of CHC staff. Even after training, they can still not perform some tests independently, but still have to rely on technical assistance from the district level. Traditional customs are still a barrier to access to health care and mother health care among some EM groups, especially among women. This, if not changed, would reduce the impact of the new investments due to the low usage rate. (If EM women continue the practice of feeding babies with new foods too early, or leave the baby care entirely to other family members, or have an inadequate nutrition regime during pregnancy, then children would still face the risk of malnourishment or stunting, despite that CHCs have been upgraded).	The VIA test, cervical screening, sputum detection for TB can be done at CHCs, but not necessarily by CHC staff. Mobile district teams can come on request to help. CHC staff should only assume the job when they have become proficient. Communication and counselling shall be strengthened, funded with the state budget, to improve the understanding of women, especially EM women, of the importance of breastfeeding, mother and child nutrition, nutrition during pregnancy, improvement of the living standard, etc.
Civil society organizations	These organizations can take part in the NCD		There are not so many such organizations or success lessons;	The project should review and share lessons on the NCD management

services against cash payment, but it is not clear how much they can retain and how much they have to contribute to relevant authorities. Village health staff are paid very poorly. Many have quit as a result. The current vague financial rule is causing a bad staff morale. This need to be addressed on an urgent basis to improve staff motivation.

Stakeholder	Focus areas of the project	Project implementation concerns	Constraints	Recommended actions
(elderly clubs, women groups, etc.)	management program.		Lack of childcare advices for women.	model. Pilot in some project provinces such as forming patient groups who have the same problems, forming mother's clubs to share experiences on childcare.
Users of CHC services	High service quality, easy access, reasonable cost	The childcare package aims at addressing issues such as little breastfeeding, short maternity break, no examination during pregnancy, etc. that are the results of old traditions and hardworking habit. Women do not prefer black and white ultrasound image. Therefore, they opt to go to private clinics instead, and their only attention is the gender of the baby. Mother and childcare is provided at CHCs. However, many EM villages are located too far away, 7-10km from the CHC. Transport conditions are very poor, particularly in the rainy season.	There is no communication component contained in the project, whereas this is an important item. Women use ultrasound service excessively because the want to know the gender of the fetus. Screening costs are not covered by health insurance. The drug distribution schedule (for diabetes and hypertension) is inadequate. The treatment cost of NCDs, tuberculosis and cervical cancer is still a financial burden.	CHCs to use the budget resources to communicate on breast-feeding, correct breastfeeding, the importance of pregnancy examination, the adverse effect of excessive ultrasound service. Impose penalties on private clinics that release information on the gender of the fetus to mothers. DOH and the provincial health insurance branch shall review and improve the drug distribution schedule to better serve patients. The same types of hypertension and diabetes drugs must be distributed at both the commune and district levels. Early screening should be added to the list of insured costs. Remote villages (7-10 km far from CHS)

VI. APPENDIX

Appendix 1. ***Rate (‰) of obstetric complications / 1,000 deliveries in Quang Tri province***

No	Year / Location	2012 (‰)	2013 (‰)	2014 (‰)	2015 (‰)	2016 (‰)	2017 (‰)
1	Dong Ha city	0	0	0	0	0	0
2	Quang Tri town	0	0	0	0	0	0
3	Vinh Linh district	13.45	9.68	8.38	2.40	7.25	10.58
4	Gio Linh district	13.93	5.69	8.93	7.81	0	10.20
5	Trieu Phong district	7.14	0	0	0	0	52.63
6	Hai Lang district	20.77	15.51	23.44	20.31	8.18	9.25
7	Cam Lo district	0	0	0	0	0	5.71
8	Huong Hoa district	5.22	2.40	4.23	1.58	2.83	4.74
9	Dakrong district	6.12	2.34	1.19	4.65	1.22	3.06
10	Provincial general hospital	11.42	13.02	15.34	17.52	19.19	26.09
11	Regional poly-clinic	7.24	3.19	3.66	1.56	1.10	0.89

Source: Quang Tri Department of Health, 2017

Appendix 2. Situation of medical examination and treatment of some NCDs in hospitals in Tra Vinh-Son La province in 2017, by number of visits, inpatient treatment, and gender.

Type of disease	No of patients	Year 2017		Inpatient treatment	Year 2017	
Tra Vinh*	Number of visits	Female	%	Number of visits	Female	%
Primary hypertension	105,011	57,953	55.1%	6,662	4,558	68.4%
Stroke	419	231	55.1%	455	213	46.8%
Diabetes	52,098	36,637	70.3%	973	679	71.6%
Stunting	70	35	50%	59	33	55.9%
Other diseases of endocrine, nutrition and metabolism	3,865	2,365	61.2%	1,073	800	74.5%
Cervical malignant tumor	202	202	100%	20	20	100%
Malignant tumor in unexplained and unspecified parts of the uterus	186	186	100%	14	14	100%
Mental disorder and alcohol related behavior	187	004	2%	32	01	3.2%
Bronchial pneumonia and chronic obstructive pulmonary disease	17,624	7,924	44.9%	2136	865	40.4%
Pulmonary in respiratory apparatus	720	178	24.7%	789	188	23.8%
Other TB types	110	031	28.2%	39	13	33%
SON LA (12 months 2017)	No of patients			No of treatment cases		
Primary hypertension	29,079	14,537	49.9%	5,894	3,535	59.9%
Stroke	969	471	48.8%	839	351	41.8%
Diabetes	33,081	20,037	60.1%	1,156	623	53.8%
Stunting	833	381	45.7%	323	124	38.3%
Other diseases of endocrine, nutrition and metabolism	13,587	8,264	60.1%	1791	1.028	57.3%
Cervical infection	1,163	1,163	100%	224	211	94%
Cervical malignant tumor	247	247	100%	48	48	
Mental disorder and alcohol related behavior	126	15	11.9%	84	4	16,4%
Pulmonary in respiratory apparatus	908	148	16.3%	789	76	9.6%
Other TB types	264	110	41.6%	116	28	24.1%

(*) *In Tra Vinh province, disease case data were collected only in the first 9 months of 2017.*
Source: Provincial Health Statistics Report, 2017 - Health Department of Tra Vinh and Son La.

Appendix 3. **The NCD management pilot model in Can Tho, funded by WHO**

In 2017, with the support of WHO, Can Tho piloted the model of non-communicable disease management in four units, including Long Tuyen ward and Thoi An Dong ward (Binh Thuy district), Thoi Xuan commune, Trung An commune (Co Do district). In 2018, Binh Thuy district and Co Do district will deploy 3 more units each, bringing the total number of implementing units to 10 per communes/wards.

At the pilot units, the preventive medicine center and the clinic are involved, in which the clinic organizes early detection and provision of services: assessment, counseling for cases of overweight, obesity, dyslipidemia, blood glucose; Advise, manage, treat and monitor hypertension, diabetes. Every month, each commune and ward organize medical examination and treatment for patients and examine the treatment. Early detection of suspected diseases: Cardiovascular, hypertension, overweight obesity, hypercholestemia and hypercholesterolemia in the community, guide them to communes, wards treatment. To compile dossiers on management and monitoring, counseling and care for patients suffering from non-communicable diseases; Ensure patients are monitored continuously throughout the course of the disease.

The management model of NCD implemented will reduce the hypertension treatment gap and diabetes between the two lines of treatment which are district hospital and commune health station; contributing to reducing complications, premature death from cardiovascular disease and diabetes; Controlling the rate of increase to reduce the rate of people infected with non-communicable diseases in the community (Report of Can Tho Health Department with the inspection team of the Department of Preventive health care on 25 May 2018).

Appendix 4. Local Initiatives and Advocates.

- Create favorable conditions for patients when the health insurance regulations have not been amended.

Recognizing that the health insurance stipulates that the duration of drug delivery is 3-5 days for patients with hypertension at the commune level, which is too difficult, causing difficulties for patients, Head of A Đạm Commune Health Center, Dak Rong-Quang Tri said.

> "There are villages which are 25 km away from the center of the commune by forest road, 75 km away from the district health center. Such time limit for drugs provision will cause hypertensive patients to not have regular medication so when they go to medical examination station, I often "overrule" to give them 15 days, even20 days. When they are near to the end of the medication, they tell the station that they cannot come. I usually send the medication by car to the village health station or to the village health clinic at briefing meeting (every month or 2 months) so the patients have continuous medication, if they have time they will go to station to have insurance payment document. There are times when I get nagged, but if I do not do so, the patients in the distance also do not have drugs, affect their treatment as well as their lives. They are very poor ethnic people, no money to buy medicine outside".

- Poor provinces still support the health sector to perform early screening for cervical cancer.

Doctor of Tra Vinh Health Department said Tra Vinh is a poor province in the Mekong Delta but very interested in the health sector. In 2017, the province decided to dedicate a budget of 500 million dong, assigning the provincial family planning center to carry out the project "Screening for early cervical cancer for women". The project is being implemented from March 2018 and will end in July 2018. It is estimated that 1,500 women in 30 hamlets in 30 communes in the province will be randomly selected to participate in the gynecological examination, combined with screening for cervical cancer by PAP Smear method. When there are results, women with signs of suspected cancer will be further diagnosed and decided on treatment.

- Suggestions of men in Kim Son commune, Tra Vinh.

At the group discussion of Xoai Rom Village, Kim Son Commune, Tra Cu District, 6 January,2018, men in the meeting suggested the Ministry of Health as well as the province should pay attention to reproductive health for men and provide reproductive health services for both men and women Many commented that the health sector has "focused too much" on reproductive health for women but neglected men. Men's diseases are more and more common, but men do not know where to go for medical treatment. The province does not provide treatment for male diseases. As farmers, they are unlikely to go to HCMC for treatment.

> "We ask the Ministry of Health to build hospitals, or open more medical departments for men. We have been neglected for a long time, do not have any care facilities so if we have disease we do not know where to cure the disease. "- (Residential group Ap Xoai).