

2 THE CURRENT HEALTH SITUATION

2.1 Preface

Since 1995 the NTEC, WB, and ADB, have commissioned a myriad of studies, surveys, and health action plans to determine the health status of local residents of selected communities in the NT2 Project intervention area and plan for their needs. The NT2 Project Office is a repository for dozens of reports outlining the prevalence as well as severity of specific illnesses found in the NT2 Project intervention area. Some of these documents focus attention on identifying specific NT2 Project sector interventions [e.g. irrigation and hydrology] that can potentially increase the incidence and prevalence of vector and water-borne diseases. Other reports discuss communicable disease issues and problems that can emerge with the influx of 4,200 workers, as well as many thousands of camp followers and/or other people migrating to the camp sites and district towns, during the pre-COD phase. Many of these studies, and scenarios, include detailed recommendations on ways to mitigate or reduce the adverse affects that can impact on health. These studies, however, generally focus on the 5-year construction period, and do not take into account other macro and micro-economic developments that are reasonably likely to concurrently take place in and around the NT2 Project intervention area. They also do not take into consideration other future

developments that may shortly arise as a result of the completion of the NT2 Project.

Determining a population's health status is not a simple exercise, especially in developing countries where health statistics are often incomplete, not collected or reported on a regular basis, or simply non-existent. Interpreting provincial-level statistics is often compounded by the fact that there may be substantial disparities between urban and rural communities, and/or between rural communities with access to roads and those that do not have any roads. Even in the latter category there are many variables that affect health. This may include the fact that a community is located many hours, or several days walk, from the nearest health facility. For some ethnic minority communities linguistic and cultural differences frequently make it difficult to effectively communicate with government health officials. This may influence the cultural acceptability of available health services.

2.2 Presentation of Available Data

Most of the figures indicated below derive from the *Lao Reproductive Health Survey 2000* (LRHS) and the *National Health Survey 2001* (NHS). The Provincial level data generally derives from the *Summary Report of Provincial Data Analysis* that the National Statistics Center published in the early part of 2003. The LRHS covered all 18 provinces. It included 21,067 households, 40 villages per province, and 30 households per village. The NHS was considerably smaller, but since many of the demographic and health issues were already covered in the LRHS, it was nevertheless statistically representative of the entire country. The NHS also covered 18 provinces, but only 6,600 households, 264 villages, and 25 households per village. With respect to communities in Khammouane, Bolikhamxay, and Savannakhet provinces, the NHS respectively collected information from 12, 26, and 7 villages.

The table below, also includes information obtained from other health surveys as well as statistics extrapolated from MOH publications:

On the surface the figures listed below suggest that health status, especially for vulnerable groups [women of reproductive age and young children], in the Lao PDR is still quite poor. It is a picture of communities still affected by a wide range of vector and water-borne diseases, influenced by ecological and environmental conditions, and compounded by the lack of access to clean sources of potable water as well as the safe disposal of human wastes. The figures also reflect poor access to comprehensive Maternal and Child Health (MCH) services, which include ante-natal, delivery, post-partum, and family planning-birth spacing services for women of reproductive health; and immunization (EPI), nutritional surveillance, and basic health care for infants and young children.

On closer investigation, however, it is considerably more complicated to interpret national and even provincial level health statistics. A key indicator determining a nation's health status is the Maternal Mortality Ratio (MMR). This is the number of women dying from pregnancy related causes, and/or during labor, and within the 6-week period following delivery. In the Lao PDR the MMR is 530 maternal deaths per 100,000 live-births. One of the reasons that MMR is considered such a sensitive indicator of health is that "child-birth" is a natural phenomenon, and while many women experience discomfort and pain, it is generally not a life-threatening event. To illustrate this fact, over the past 5-year period, the Mother and Child Health Hospital in Vientiane, has encountered 1 maternal only mortal-

ity, even though this facility each year probably performs the highest number of deliveries in the nation. The maternal death, in question, involved a woman experiencing obstructed and prolonged labor, who lived outside of Vientiane, and arrived at the hospital beyond the point where medical staff could be of assistance. Although MMR is often attributed to educational levels, occupation, and socio-economic status, in fact it is directly associated with having access to essential and/or emergency obstetrics care (EOC). Thus an unemployed or uneducated woman living in the capital of Vientiane, or in the provincial centers of Thakhek, Khanthabouly, or Pakxan, would have a much better chance of surviving a complicated delivery than a university graduate teaching in a school in Nakai District of Khammouane. Nakai hospital staff, for example, presently are not trained or equipped, to provide EOC (especially Caesarian Section procedures) to women experiencing obstetrics emergencies.

Table 1: Key Indicators of Health for the 3 Provinces Included in the NT2 Project

Health or Demographic Indicator	National and Provincial Rate				National Ranking		
	National	KM	BLX	SVK	KM	BLX	SVK
Crude Birth Rate (# Births/1,000 Population)	34 .0	37. 0	36. 9	37. 4	9	8	11
Crude Death Rate (# of Deaths/1,000 Population)	6.3	10.8	3.6	6.4	18	2	9
Natural Rate of Growth (% Annual Population Increase: Crude Birth Rate – Crude Rate)	2.8	2.6	3.3	3.1	5	14	11
Infant Mortality Rate (# of Children Dying < 1Year of Age/1,000 Live-Births)	82 .2	91. 5	26. 0	98 .7	15	2	17
Under Five Mortality Rate (# Children Dying <5 Years of Age/1,000 Live-Births)	106. 9	116. 2	47. 7	123. 9	15	2	17
Total Fertility Rate (Expected # of Children Born to a Woman During Her Repro- ductive Life-time)	4. 8	5. 4	5. 0	5. 0	10	7	8
Family Planning: (Contraceptive Prevalence Rate (% Married Women Using a FP Method)							
-All Methods	32. 2	24. 2	33. 3	30. 7	12	5	6
-Modern Methods	28. 9	23. 9	32. 7	30. 1	11	5	6
-Traditional Methods	3. 2	0. 4	0. 2	0. 6	15	16	12
-Unmet Need for FP Services	39. 5	33. 9	48. 1	41. 9	N.A.	N.A.	N.A.

Health or Demographic Indicator	National and Provincial Rate				National Ranking		
	National	KM	BLX	SVK	KM	BLX	SVK
Delivery Practices							
-% of Deliveries in Past 5 Years that Took Place at the Home of Expectant Mother	86.1	80.7	87.9	85.4	16	13	14
-% of Deliveries in Past 5 Years Assisted by a Trained Health Worker							
-Assisted by Health Personnel	17.4	18.2	13.6	14.0	5	8	7
-Assisted by TBA	13.2	13.0	2.8	7.7	6	10	7
-Assisted by relatives/friends	55.1	52.0	70.2	63.5	13	5	10
Ante-Natal Care (% Pregnant Women in the Past 5 Years that did not Receive Ante-Care)	75.8	77.9	75.4	71.4	8	6	4
Malaria (Data from CMPE-2002)							
# Malaria Cases	267,454	34,379	8,861	49,816	N.A.	N.A.	N.A.
- Morbidity / 1,000 Patients	48.5	104.7	44.9	61.5	N.A.	N.A.	N.A.
- Mortality / 100,000 Patients	3.5	5.5	1.0	2.1	N.A.	N.A.	N.A.
- Population Protected by IBNs	73.3	83.2	76.5	83.5	N.A.	N.A.	N.A.
Acute Respiratory Illness (ARI)							
# ARI Cases < 5 Years of Age	48,235	5,562	1,535	14,064	N.A.	N.A.	N.A.
-Est. Incidence Rate	5.5	10.7	4.9	11.0			
Diarrhea							
# Diarrhea Case < 5 Years of Age	17,792	1,476	871	3,182	N.A.	N.A.	N.A.
-Est. Incidence Rate	2.0	2.8	2.8	2.5			
# Deaths of Diarrhea < 5 Years of Age	36	6	1	4			
EPI Coverage (% of children 0-11 months [for BCG & DPT3], children 0-23 months [for Measles] and Women of Child Bearing Ages [for TT2+] receiving immunizations)							
-BCG	48.9	60.0	46.7	62.6	N.A.	N.A.	N.A.
-DPT3	35.7	46.0	32.3	52.8	N.A.	N.A.	N.A.
-Measles	30.3	34.3	29.0	44.5	N.A.	N.A.	N.A.
-TT2+	37.6	28.5	26.9	56.2	N.A.	N.A.	N.A.
Water & Sanitation (from LECL & II Surveys 1998/1999)							
-% of Households With Access to a Clean Source of Water	50.0%	38.0%	65.0%	66.0%	N.A.	N.A.	N.A.
-% of Households with Latrines	29.0%	14.0%	22.0%	11.0%	N.A.	N.A.	N.A.

Health or Demographic Indicator	National and Provincial Rate				National Ranking		
	National	KM	BLX	SVK	KM	BLX	SVK
HIV/AIDS (NCCA June 2003)							
-# blood samples tested	91,003	5, 196	637	12,609	N.A.	N.A.	N.A.
-# HIV infected	1,102	92	9	487	N.A.	N.A.	N.A.
-# AIDS cases	599	17	9	286	N.A.	N.A.	N.A.
- # AIDS deaths	461	17	6	248	N.A.	N.A.	N.A.
Knowledge of HIV/AIDS & STI Transmission (LRHS 2000)							
-Know how HIV/AIDS is Transmitted	69. 3	65. 5	49. 6	81. 3	N.A.	N.A.	N.A.
-Know how STIs are Transmitted	52. 0	45. 9	36. 2	49. 0	N.A.	N.A.	N.A.

If the data in Table 1 was presented according to geographical or ecological zone, with a cross reference to the type(s) of existing health facilities and the capacity/competencies of local health manpower, the numbers would vary considerably, even within the same province as well as within the same district. This is an important concept, or fact, to understand if one is to predict the cumulative impacts on health as a result of the NT2 Project. The health status of ethnic minorities, especially those living in remote mountainous and forested regions of the country, often several days-walk to the nearest health facility, is quite different than that of residents living in the provincial, or at times district, center. Thus Crude Birth Rates, Infant Mortality Rates, Under Five Year Mortality Rates, Total Fertility Rates, Contraceptive Prevalence Rates, EPI Rates, % of pregnant women delivering in a hospital or health center with a trained birth attendant; % and incidence of children < 5 years of age dying or suffering from diarrhea, acute respiratory illnesses, and malaria, etc. for Thakhek, Khanthabouly, and Pakxan, and some of the larger district centers situated along the Mekong River are probably more similar to the figures found in semi-urban Thailand than for that reported above by the LRHS and NHS.

2.3 Recent Improvements

It is also important to recognize that specific patterns of morbidity and mortality can dramatically change in a very short period of time. In less than four years, since the completion of the LRHS and NHS, the National Malaria Control Project has greatly reduced the number of illnesses and deaths caused by malaria throughout Khammouane province. This development has substantially reduced the number of patients visiting or being admitted to district hospitals, and will undoubtedly be reflected in lower maternal, infant, and under 5 year old mortality rates in the National Census scheduled for 2005. During this same 4-year period the National Reproductive and Birth Spacing Programme has trained health workers as well as Village Health Volunteers (VHVs) and Traditional Birth Attendants (TBAs) nation-wide, to provide information, counseling and selected services to women and children. All health facilities in Khammouane, for example, are now provided with contraceptive services [e.g. oral and injectable contraceptives, and condoms] for interested couples, while provincial and district hospital

personnel can insert IUDs. These services, if understood, appreciated, and accepted by local communities, can within a very short period of time and in an extremely cost-effective manner exert a tremendous momentum in reducing maternal and infant mortality rates, especially for rural and remote areas in the NT2 Project intervention area. They are also a key variable in reducing population growth rates.

2.4 Challenges Ahead

Illness and death are a natural part in the cycle of life. Thus as certain health problems and issues are resolved, successfully managed or controlled, or disappear, others almost immediately emerge upon the horizon. Training health workers, and decision-makers, to understand this phenomenon and to observe new health developments in their early-stages, is essential for improving and/or maintaining good health for a given population. Thus as malaria, outbreaks of diarrheal diseases, and complications caused by acute respiratory illnesses amongst young children, gradually becoming less serious issues, the health and other relevant sectors need to be prepared to deal with new patterns of morbidity and mortality. This has already begun to include vehicular accidents, Sexually Transmitted Infections [STIs] & HIV/AIDS, and a wide range of emotional health issues such as depression, anxiety, and suicide. In Khammouane while some of these new health issues are anecdotally becoming more prevalent in and around the provincial and district centers located along the Mekong River, they are nevertheless gradually permeating outward into the key districts that comprise the NT2 Project intervention area. The nature of the construction and resettlement interventions planned during the 5-year pre-COD phase, in addition to other macro and micro-economic developments envisioned for Khammouane and neighboring geographic areas, will definitely exacerbate the potential impact of these new patterns of morbidity and mortality in the NT2 Project intervention area. How serious they eventually become, will to a great extent depend upon the level of concern and awareness of NT2 Project staff, local government, local communities, and the local health sector, as well as the combined willingness to take pro-active measures before a potentially dangerous situation spirals out-of-control.