DISABILITY IN VIETNAM IN 1999: A META-ANALYSIS OF THE DATA

by

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CONTENTS

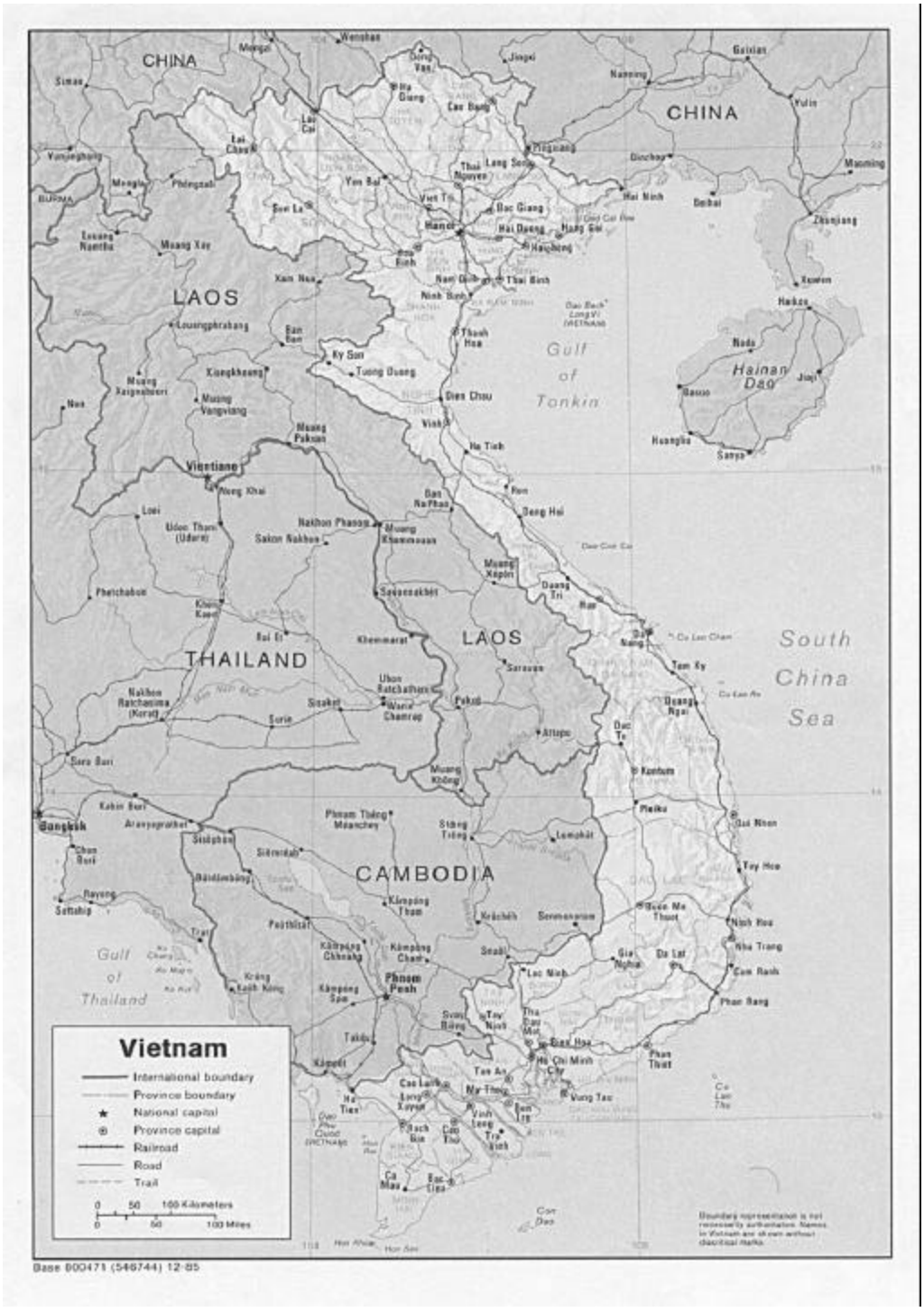
Tables

Figures

ACRONYMS

AIFO	Associazione Italiana Amici di Raoul Follereau
AK	Above Knee (amputation)
AE	Above Elbow (amputation)
AWD	Adolescents with Disabilities
BK	Below Knee (amputation)
BE	Below Elbow (amputation)
CAD-CAM	Computer Aided Design-Computer Aided Manufacturing
CBR	Community-Based Rehabilitation
CIC	Care in the Community
CMTSS	Central Medical Technical Secondary Schools
CP	Cerebral Palsy
CPCC	Committee for the Protection and Care of Children
CRS	Catholic Relief Services
CWD	Children with Disabilities
dB	Decibels
DCOF	Displaced Children and Orphans Fund
DOET	Department of Education and Training
DOLISA	Department of Labor, Invalids and Social Affairs
EP	Epilepsy
GSO	General Statistical Office
GTZ	Geselleschaft Technische Zusammenarbeit
HCMC	Ho Chi Minh City
HH	Household
HI	Handicap International
HPU	Hanoi Pedagogic University
HNU	Hanoi National University
HVO	Health Volunteers Overseas
ICRC	International Committee of the Red Cross
IE	Inclusive Education
ISPO	International Society for Prosthetics and Orthotics
KAP	Knowledge, Attitude and Practice (test or survey)
K2	Komitee Twee
MCNV	Medical Committee Netherlands Vietnam
MET	Monitoring and Evaluation Team (VVAF)
MIS	Management Information System
MOC	Ministry of Construction
MOET	Ministry of Education and Training
MOH	Ministry of Health
MOJ	Ministry of Justice
MOLISA	Ministry of Labor, Invalids and Social Affairs
MSAVCL	Medical Scientific Aid Vietnam, Cambodia, Laos
NGO	Nongovernmental Organization
NIP	National Institute of Pediatrics

NLR	Netherlands Leprosy Relief
NIES	National Institute for Education and Training
ODP	Ordinance on Disabled Persons in Vietnam (1998)
P&O	Prosthetics and Orthotics
POF	Prosthetics Outreach Foundation
POWER	Prosthetic and Orthotic World Education and Relief
PSBF	Pearl S. Buck Foundation
PT	Physical Therapists
PWD	Persons with Disabilities
RB	Radda Barnen (Swedish Save the Children)
SB	Strange Behavior
SCF/UK	Save the Children Fund/United Kingdom
SE	Special Education
TDCSE	Training and Development Center for Special Education (HPU/HNU Hanoi)
TF	Trans-Femoral
TH	Trans-Humerus
TR	Trans-Radius
TT	Trans-Tibial
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VBA	Vietnam Blind Association
VIETCOT	Vietnamese Training Center for Orthopedic Technologists
VINAREHA	Vietnam Rehabilitation Association
VNAH	Viet-Nam Assistance for the Handicapped
VNHS	Vietnam National Health Survey
VT	Vocational Training
VVAF	Vietnam Veterans of America Foundation
WCI	World Concern International
WVI	World Vision International
WHO	World Health Organization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EXECUTIVE SUMMARY

This report is a review of data on disability in Vietnam. The two main objectives of the review study are to (1) assess current knowledge on the prevalence of disability, types of disability, causes of disability, characteristics of persons with disabilities (PWDs), the need for prosthetic and orthotic services, and the current supply of such services in Vietnam, and (2) determine the additional data requirements for filling the gaps in information on the demand, supply, and rehabilitative service infrastructure needs for persons with disabilities in Vietnam. Reports and data were compiled and collated from more than a dozen surveys related to disability, from the Community-Based Rehabilitation (CBR) disability surveillance system, service statistics from almost two dozen rehabilitation centers and prosthetic and orthotic workshops, and from the key staff at ministries and nongovernmental organizations (NGOs) working in the field of disability, especially Ministry of Labor, Invalids and Social Affairs (MOLISA), the MOH, the Ministry of Education and Training (MOET), and a dozen key NGOs working in the field of motor disability and prosthetics and orthotics production, learning disabilities, inclusive education programs, and vocational training for persons with disabilities (PWD).

Strengths and weaknesses in the extant data on disability in Vietnam are highlighted, and future data needs are identified. A range of estimates on the overall prevalence of disability, the prevalence of specific types of disabilities (using the World Health Organizations's [WHO] seven general disability categories), the major causes of different kinds of disabilities, and the characteristics of PWDs and differentials in the types and causes of disabilities according to age and gender. Limited data is reviewed on inclusive and special education programs and vocational training for PWDs. Summary data are provided in tables attached to the report.

Following are some of the main findings of the review:

1. The range of estimates cited for the overall prevalence of disabilities in Vietnam is still quite broad (2–10 percent, but most likely 5–7 percent); the prevalence estimates for each specific type of disability also vary widely from one source to another; both national survey estimates and CBR data indicate that motor disabilities make up more than one-third of all disabilities for the population as a whole, and between one-fifth and one-third of disabilities in children.

2. Many provinces and districts have not been adequately covered in recent disability surveys or CBR surveillance activities of disabilities, and therefore large gaps exist in the reporting of disability data; complete and accurate data on persons with disabilities are needed at the provincial and district levels for program planning.

3. Significant differentials exist in the types of disabilities and causes of disabilities, according to the different age groups and gender of the PWD.

4. Demand (need) for prosthetics by amputees is more than two times higher than the estimated level of prosthetics production in Vietnam. The gap between the demand for and supply of quality orthoses among non-amputee motor-disabled persons is even larger.

5. Disability project interventions of the concerned ministries and NGOs often have specific target groups (e.g., amputees, children with disabilities, blind/vision impaired, war invalids, etc.) and/or usually focus on only one aspect of rehabilitation and integration of PWDs (e.g., prosthetic and orthotic [P&O] fittings, physical rehabilitation, inclusive education, or vocational training). Consequently, the various organizations tend to collect disability data most relevant to their specific target groups or specific interventions rather than taking a more holistic approach to PWDs.

6. The quality of reported data varies widely, and a fair amount of data are missing. Over-reporting or under-reporting of specific kinds of disability occurs due to problems in the definitions of disabilities or staff being inadequately trained in proper methods of collecting disability data in surveys, CBR reporting, or at rehabilitation centers.

7. Although a wide range of potentially useful data on disability in Vietnam exists, the data that are collected are often not sufficiently analyzed, disseminated, or used to formulate policy or plan or improve programs. Organizations rarely share disability data, and computer software; definitions of disability; and data collections procedures, variables, indicators, response categories, and tabulation and analysis plans differ. Therefore, comparing data from different sources is difficult.

8. The roles and responsibilities of the MOH, MOLISA, and the various NGOs in providing prosthetics, orthotics, and rehabilitation services at the provincial level will likely be changing in the near future, particularly in response to the July 12, 1999 Decree of the Prime Minister. Close cooperation between MOLISA, the MOH, and NGOs is needed during the transition period in terms of coordinating disability services, data collection, and statistical reporting, and on prosthetics and orthotics production and rehabilitation activities.

The report concludes with a recommendation to support a national disability survey to be conducted in each of the country's 61 provinces with a sample size large enough in each province to obtain statistically valid and reliable estimates of the overall prevalence of disability, and of several specific types of disabilities. The report also recommends that more in-depth, qualitative information be collected on the life circumstances, needs, and level of service satisfaction of PWDs. Such data could help assess any traditional or current beliefs, attitudes, or practices in the various ethnic settings that either help or hinder the integration of PWDs into society.

Technical support is also recommended to assist the various ministries and NGOs in the effective analysis and dissemination of their disability data, to develop and use relevant and comparable indicators to monitor and evaluate program effectiveness and communicate lessons learned from the data results, and to use the disability data collected for local- and national-level planning and decision making regarding the provision of quality rehabilitative and other services for PWDs. International disability experts and universities working in

public health and social science research may be able to play an important role in providing more technical support and assistance in capacity building.

An extensive list of references is provided at the end of the report that cites many of the data sources, reports, and documents used in the disability data review. Summary tables of key disability data are also provided at the end of the report, as is a list of organizations and persons contacted during this review.

Recommendations

1. An appropriate agency or agencies should conduct a representative national baseline survey on disability prevalence, causes, and types, including information on background characteristics, services received, and needs of PWDs. All provinces should be included and the sample should be large enough to have statistically valid estimates of the major types of disabilities at the provincial or regional level, as well as at the national level. Such a large-scale survey could be conducted collaboratively by MOLISA, the MOH, and the General Statistical Office (GSO) because of their previous experience in conducting large surveys and/or disability data collection. The survey effort should be done in close consultation with the MOET and NGOs working in the disability field in Vietnam. International financial and technical support will be necessary for designing, implementing, and analyzing such a large-scale data collection. Because of the large costs involved, the difficulties in collecting disability data, and the great importance the survey results will have to the many stakeholders, technical assistance should include careful supervision of the design of the questionnaires, sampling procedures, training, and implementation of the fieldwork and data analysis phases of the survey. This technical assistance should be provided by independent, internationally recognized experts in the fields of disability and survey research. The survey questionnaire content should be linked to disability program objectives and interventions.

2. **Evaluation is needed to document the success and contributions of nongovernmental organizations (NGO), MOH, and MOLISA programs in providing prosthetics and orthotics and rehabilitation services in Vietnam over the past five years. Such evaluation should use numerous program relevant process, outcome, and impact indicators that measure the extent to which program objectives and targets were achieved (and to find ways to ensure that enough high-quality, durable prosthetics, orthotics, and rehabilitation services are produced and/or available to meet the demand for these devices and services).** To ensure valid and objective results, the evaluations should be well planned and carried out by independent experts in the field in cooperation with project staff. Funding for the evaluation activities of disability projects should generally be only a small fraction (e.g., approximately 10 percent) of the total budget for disability project interventions. However, occasionally a particularly successful project intervention might deserve more in-depth evaluation and documentation.

3. **Support should be provided to disseminate and share disability data collected by various ministries and NGOs. The NGO Disability Forum may be able to play a facilitating role in this regard.**

4. **More data needs to be collected and evaluated on inclusive and special education programs, vocational training, employment, and integration of PWDs in the community, and PWDs' access to and use of these services.**

5. **An in-depth qualitative research study should be conducted on the life situation and needs of PWDs and on the awareness, knowledge, attitudes, beliefs, and misconceptions in the community concerning different kinds of disabilities and PWDs.**

6. **Technical support should be provided to MOLISA, the MOH, and MOET/NIES in collecting disability data, analyzing data, and disseminating and using results from various sources to formulate policy, improve the performance of rehabilitation programs, and implement activities to prevent injury and disability.**

7. **More follow-up data on PWDs receiving rehabilitation services needs to be collected some time after PWDs receive their rehabilitation services (medical/surgical, physical therapists (PT), inclusive education (IE), vocational training (VT), etc.) to determine the longer-term impact of these efforts on improving the lives of PWDs.**

8. **More data should be collected and analyzed on the durability and cost-effectiveness of various prosthetic and orthotic devices, according to type of material or technology used, and at different workshops. Cost-effectiveness studies are also needed on alternative rehabilitation strategies, special education versus inclusive education programs, etc.**

9. **Ministries and NGOs should collaboratively identify, develop, and use key variables, definitions, and indicators to measure the progress of disability programs and evaluate the impact of the implementation of the 1998 Ordinance on Disabled Persons in Vietnam. Ministries and NGOs should also ensure that these data are collected by the appropriate agencies in a timely manner**.

INTRODUCTION

Background on the Disability Data Review

In a December 17, 1998 meeting cosponsored by the Ministry of Labour, Invalids and Social Affairs (MOLISA) and Prosthetic and Orthotic World Education and Relief (POWER), representatives from participating organizations decided that before a nationwide survey or census-type count of disabled persons was undertaken in Vietnam, a study of existing data, surveys, and service statistics was needed. The study, which was funded by the Patrick J. Leahy War Victims Fund (LWVF), was directed by a Steering Committee composed of representatives from MOLISA, the Ministry of Health (MOH), the Ministry of Education and Training (MOET), World Vision International (WVI), POWER, the Vietnam Veterans of America Foundation (VVAF) and Health Volunteers Overseas (HVO). This study reviews existing data sources on disability in Vietnam; identifies gaps and limitations in the information collected; and suggests additional data needed to implement, monitor, and evaluate government and nongovernmental organization (NGO) program interventions serving persons with disabilities. The study was also useful to assess the data needed to implement action plans emerging from the 1998 Ordinance on Disabled Persons (ODP) in Vietnam, which was effective as of November 1, 1998. The report from this study reviews the various data sources on disability in Vietnam, and provides estimates of the prevalence, types, and causes of disability, and the characteristics of persons with disabilities. The report also addresses issues of the quality of disability data, shortcomings in the data collected, and data needs.

Rationale for the Disability Data Review

A range of information is needed to assess the basic needs of persons with disabilities, monitor the progress of program interventions, and measure the impact of these interventions on the health and social well-being of disabled persons. Not only is it important to have estimates of the overall prevalence of various disabilities, but, perhaps more importantly, it is important to know the geographic distribution of persons with disabilities and the type and location of rehabilitation centers and staff for the disabled. Such information will facilitate a determination of whether the level and range of services for the disabled are adequate across all areas of the country. Comparable data are needed on specific types and degrees of disability, socio-demographic characteristics of the disabled, accessibility and availability of rehabilitation services, use of those services, and quality and effectiveness of those services, as well as educational and vocational training available for persons with disabilities.

Having an accurate count of the total number of amputees by type in Vietnam, as well as the total number of prosthetic devices produced each year will lead to a determination as to whether enough devices are being produces to meet current need. It should be noted, however, that some amputees need multiple devices, and that many of these devices must be adjusted periodically.

Methodology for the Review

In addition to a review of project documents and survey data, Management Information System (MIS) service statistics, and Community-Based Rehabilitation (CBR) data, the review also included field visits to the MOLISA, MOH, MOET, and NGO offices and a number of disability rehabilitation centers, workshops, program sites, and project intervention areas throughout the country. The field visits included in-depth interviews with program managers, service providers, and clients/persons with disabilities (PWDs), and a review and collection of relevant documents, disability data, and study results, and information on organizations providing services for PWDs. Prior to the December 17, 1998 POWER/MOLISA meeting, POWER's Michael Boddington had assembled numerous documents and data relating to the prevalence and characteristics of persons with disabilities in Vietnam.

Disability data from various sources were reviewed, collated, and compared for completeness, accuracy, validity, consistency, and content. Selected tables and figures were prepared from the data from various surveys, and the NGO and Rehabilitation Center service statistics on prosthetics and orthotics production and PWD clients. Such data includes client numbers; types and causes of disability; and background characteristics such as age, gender, education and vocational training, services received and PWDs clients' needs and aspirations. These data are discussed in the report.

In this report, numerical estimates for various types of disabilities for Vietnam as a whole in 1998 or 1999 have been made using estimates of the percentage prevalence of disabilities from two national MOLISA surveys and/or from MOH CBR data. The estimates of prevalence rates were then applied to the total population of Vietnam or the estimated number of children under age 18 years or under age 16 years to obtain numerical estimates of PWDs and Children with Disabilities (CWD) for the country as a whole. The resulting range of numerical estimates are illustrative and should not be viewed as precise estimates, as they are based on assumptions that may or may not be valid. In making numerical estimates of the number of persons with disabilities among the total population or among the total child population in 1999, the following three assumptions must be made:

1. Disability prevalence rates obtained from the national or regional disability surveys or from the 730 communes in the 29 provinces covered by the CBR program are applicable and representative of the prevalence rate for the country as a whole;

2. Disability prevalence rates have not changed appreciably between the time of the survey or CBR surveillance estimate and April 1999 (the time of the 1999 census of population that resulted in an adjusted population estimate of 77,263,000, which is used for the 1999 estimates); and
3. Estimates of disability prevalence from the national surveys or CBR data are accurate and did not substantially overestimate or underestimate overall disability or specific types of disability.

The validity of these three assumptions will determine how close the numerical estimates provided in this report are to the true number of persons with different types of disabilities in the country.

Estimates of prosthetics and orthotics production may exclude some small private workshops that produce some of these devices. However, the magnitude of production from these workshops is not likely to be large and the quality of devices that may be produced in these places is unknown.

Definitions and Concepts

The disability data review examined disability data on the World Health Organization's (WHO) seven major categories of disabilities identified in its international classification of impairments and disablement (WHO, 1998):

1. Physical/moving/motor disabilities, such as amputees; paralyzed persons; persons suffering from polio, cerebral palsy (CP), clubfoot, or other birth defects, etc.

2. Hearing/Speech (communication) disabilities.

3. Visual/Seeing disabilities.

4. Learning (cognitive or intellectual) disabilities.

5. Strange Behavior (SB) (resulting from psychotic/mental illness, e.g., schizophrenia and depression).

6. Fits/Epilepsy.

7. Other disabilities (e.g., leprosy).

MOLISA and the MOH use the WHO definitions of impairment, disability, and handicap, which are defined briefly as follows:

> **Impairment** (organ level): loss or abnormality of body structure or of a physiological or psychological function (loss of a limb or loss of vision) (WHO, 1998). Impairment may be the result of disease or accident, or of congenital or environmental agents.
>
> **Disability** (individual level): reduced or absent ability to perform as a result of an impairment. The restriction or absence of a function (moving, hearing, or communicating).
>
> **Handicap** (social level): disadvantages experienced by a person as a result of a disability. The result of an interaction between an individual with an impairment or disability and barriers in the social, cultural, or physical environment so that this person cannot take part in mainstream community life on an equal level or fulfill a role that is normal (depending on age, sex, social and cultural factors) (Bond and Hayter, 1998).

More recently, WHO defines the more neutral term “activity” to replace the term “disability” and the term “participation” to replace the term “handicap” in the International Classification of Impairments, Disabilities, and Handicaps (WHO, 1998).

Along with the seven main types of disability categories previously mentioned above, another special category of persons with “multiple disabilities” needs to be clearly identified. Persons with multiple disabilities have special service needs and present special challenges to policymakers and service providers. Thus, accurate data for this group is also required for proper monitoring.

This report refers to below-knee amputees as BK and above-knee amputees as AK, and below-elbow amputees as BE and above-elbow amputees as AE. A more recently used term for BK is trans-tibial (TT); for AK it is trans-fermoral (TF); for BE it is trans-humerus (TH); and for AE it is trans-radius (TR). However, because many of the reports and data sets reviewed in this study still referred to the BK, AK, BE, and AE terminology for amputees, these abbreviations are used in this report as well.

Problems in Defining Types and Causes of Disability

Some disabilities are easier to identify visually (e.g., amputees, Down’s syndrome persons, or totally blind persons), while other disabilities are more difficult to assess and confirm, especially in their level of severity (e.g., speech, strange behavior, or level of hearing loss).

Problems arise primarily in the collection of data on specific types of disabilities in Vietnam. Definitions used by the various agencies collecting data vary. Some definitions are too vague, which may lead to under-reporting or over-reporting a certain type of disability because of difficulties in identifying the specific impairments that cause the disability or in identifying the level of severity of the disability (e.g., vision problems, learning disabilities, or speech problems). The classifications of specific types of disabilities are inconsistent, and two or more categories are often collapsed into one. For example, under the category, mental disabilities, one agency includes strange behavior and epilepsy. Some agencies combine hearing and speech disabilities into one category, while others report them separately. Epilepsy (EP) is reported separately by some agencies and in combined categories by others. Leprosy is reported separately by some agencies and in combined “other” categories by other agencies. Lack of precision in the definitions of specific disabilities and limited time spent training survey interviewers, CBR workers, and rehabilitation center staff to collect data on disability have lead to misclassification (misdiagnosis) of disabilities and under-reporting and over-reporting of specific kinds of disability.

The definitions of mental and learning disabilities, which may require clinical diagnosis or an IQ test to confirm, are particularly unclear. Different terms have different meanings to individuals working in this field: strange behavior, schizophrenia, mental illness, mental retardation, learning disabled, intellectually disabled. As a result, data from different sources on the reported prevalence of strange behavior and learning disabilities vary widely.

Ministries and NGOs working with PWDs tend to have a particular target population (e.g., veterans (MOLISA); destitute war victims (International Committee of the Red Cross

[ICRC]); CWDs (MOH, the United Nations Children's Fund (UNICEF), and MOLISA); and school-age children (MOET and National Institute for Education and Training [NIES]). Some organizations focus on a specific type of disability. For example, VVAF, and WVI, Viet-Nam Assistance for the Handicapped (VNAH) focus on motor-disabled or amputees; Netherlands Leprosy Relief (NLR) focuses on leprosy patients; and NIES and the Training and Development Center for Special Education (TDCSE) focus on the intellectually disabled. Different organizations specialize in different aspects of care and services for PWDs as follows:

Associazione Italiana Amici di Raoul Follereau (AIFO), the MOH, Handicap International (HI), Radda Barnen (RB) - community-based rehabilitation, Save/UK- Care in the Community (CIC).

The MOH, MOLISA, VVAF, WVI - medical rehabilitation and physical therapy at rehabilitation centers.

Prosthetics Outreach Foundation (POF), the Vietnamese Training Center for Orthopedic Technologists (VIETCOT), and POWER - prosthetics and orthotics production and training.

World Concern - vocational training.

NIES, Radda Barnen, Catholic Relief Services (CRS), Pearl S. Buck Foundation - inclusive education.

TDCSE - special education.

Consequently, these organizations each have specific data needs to monitor and evaluate their disability program activities. They may be more capable of defining, identifying, and collecting data relating to their areas of expertise.

However, because program coverage is not complete and training of program staff in data collection is often limited, it is likely that disabilities are often underestimated or misdiagnosed. On the other hand, in the absence of reliable disability data collected from independent sources, the tendency may be to exaggerate the number of persons with specific types of disabilities.

In Vietnam, the causes of most disabilities fall in four major categories:

congenital,
disease,
accidents, or
environmental agents (including war).

War injuries or war-related accidents such as children injured from land mines and other unexploded ordinances have contributed significantly to the number of amputees and persons with motor disabilities. In recent years, traffic accidents and cerebral palsy appear to

contributing increasingly to the number of motor disabled persons in Vietnam, while war-related injuries are beginning to take a less prominent share of motor disabilities.

Polio has now been surpassed by cerebral palsy as a major cause of new cases of motor-disability among children in Vietnam, but cerebral palsy is sometimes incorrectly diagnosed or classified in disability surveys. No new cases of polio have occurred in children since 1997, and some feel polio will soon be eradicated from Vietnam. However, in the period 1994–1997 the number of children under age 15 with HIV/AIDS quadrupled. New forms of disability are on the horizon that will need to be carefully monitored statistically, as is the case with other disabling diseases.

Distinguishing the specific causes of a disability and determining the levels of severity are difficult. The accuracy of data on cause and severity of disability may not be very high when data are collected by CBR volunteers and low-level health workers with little training and experience in diagnosing disability types and causes or in reporting data on disability.

The population of Vietnam, like those of many countries around the world, will age dramatically over the next two generations, because of rapidly declining fertility and improvements in life expectancy, particularly in the older age groups. Between 1999 and the year 2050, the percentage of Vietnam's population that will be 60 years old or older will increase from 7–23 percent, and of that percentage, persons age 80 or older will increase from 10–17 percent (United Nations, 1998). This aging of the population will have an enormous impact on the prevalence of disability in Vietnam and also on the types and causes of disability in the country. Ministries, NGOs, and policymakers involved in the disability field in Vietnam need to consider these trends in its policies and planning of disability services. The issue of the aging of Vietnam's population is an important one that should be considered in developing disability surveys or in-depth studies on this topic.

Sources and Kinds of Data on Disability in Vietnam

The main sources and types of data on disability in Vietnam are as follows:

- Special surveys conducted by MOLISA and MOET/NIES and their collaborating NGOs, WVI, CRS, Pearl S. Buck Foundation (PSBF);
  CBR data collected by the MOH, Committee for the Protection and Care of Children (CPCC), and collaborating NGOS such as AIFO, Radda Barnen, HI, WVI, and Save the Children Fund/United Kingdom (SCF/UK); and

  Service statistics from rehabilitation centers and orthopedic workshops run by MOLISA, the Department of Labor, Invalids and Social Affairs (DOLISA), and the MOH.

In addition, numerous disability project evaluations, needs assessments, and situation analyses have generated new data on PWDs and rehabilitation services, and have provided additional insights into the issues, problems, and program needs in the disability and rehabilitation field. Unfortunately, few special independent studies or academic social science or epidemiological research on disabilities and PWDs have been carried out by universities

and international research organizations over the past decade. Several such examples are as follows:

GTZ/ISPO study of durability of different prosthetics from Hanoi and Ba Vi workshops; Qualitative study of parents and non-disabled children toward children with disabilities and inclusive education conducted by Ngo for the Goteborg University Sweden, 1998;

Master thesis on rehabilitation services for PWDs during Vietnam's economic transition by Biermann of Catholic University of Nijmegen Netherlands, 1997;

Study of land-mine victims in Quang Tri province by Monan for VVAF and UNICEF, 1996;

World Concern International (WCI) study of amputees and paralyzed persons benefitting from a prosthetic distribution program; and

Review study of child disability by Bond and Hayter for UNICEF, 1998;).

Most research to date has been carried out by the MOH, MOLISA, and MOET and has been primarily descriptive statistical studies and evaluations using data from surveys, CBR, or rehabilitation center statistics (Ha Anh, 1998; Lung, 1998; Hai, 1997; Phu et al., 1998; MOH, 1998, and Le van Tac et al., 1998).

Data on the prevalence of specific types of disability, their causes and the characteristics and needs of PWDs are needed for planning, decision making, and monitoring and evaluation of service programs for PWDs.

Several ministries, especially MOLISA, MOH, and MOET collect data on PWDs and services provided to PWDs. Numerous NGOs also collect, process, and analyze disability data to establish baseline measures, assess the current situation, monitor progress and evaluate the impact of disability interventions in project areas. Numerous data collection approaches are used, but data are primarily collected through the following methods:

Sample surveys (MOLISA, NIES),

The MOH's CBR worker house-to-house reporting system, and

Government and NGO service statistics (e.g. WVI, VVAF, VNAH, ICRC, HI) on disabled clients at rehabilitation centers (e.g., MOLISA, DOLISA, and MOH centers); rehabilitation departments (MOH provincial hospital rehabilitation departments and the National Institute of Pediatrics [NIP]); and vocational training centers, special education schools, and inclusive education programs (World Concern, CRS, Pearl S. Buck, Radda Barnen, NIES) catering to the needs of PWDs.

In addition to the MOH provinces providing CBR services for PWD, CPCC provides CBR services and monitoring for CWDs in some 20 provinces. In the future, the MOH will

probably be assuming responsibility for CBR services in the provinces where CPCC has been overseeing some CBR services for CWDs.

Despite the extensive amount of disability data collected, much of the data are of questionable quality, accuracy, and completeness for the following reasons:

Data are rarely analyzed in depth;

Little documentation is provided on the methodology (e.g., sampling procedures; definitions used; duration and content of interviewer training, supervision, or quality control measures);

Data are rarely shared or disseminated; and

Organizations' different focuses and definitions of disability make data from different sources difficult to compare.

To date, no organization has collected comprehensive disability data for all 61 provinces of the country. Much of the disability data collected so far tend to be for specific rehabilitation centers or institutes, or in districts and communes where disability interventions such as CBR, inclusive education (IE), special education (SE), and vocational training (VT) are being implemented. Thus, for many provinces there are enormous gaps in knowledge of the overall prevalence of disability, the types and causes of disability, and the services needed and provided. The few large-scale data collection efforts, such as the 1983, 1994-1995, and 1998 MOLISA disability surveys and the MOH's CBR reporting system, still only attempt to obtain complete data on disability from a relatively small fraction of the country's provincial districts and communes.

The section of this report entitled "References" found at the end of the text of the report, provides an extensive list of the data sources, reports, surveys, and evaluations on disability in Vietnam. Many of the reports, surveys, and evaluations cited provide tables, graphs, and statistics on various types of disabilities in Vietnam, their causes, and the demographic and socioeconomic characteristics of PWDs. The reports also describe the various types of rehabilitation services, such as CBR or rehabilitation centers; vocational training projects; and inclusive education and/or special education programs provided for PWDs, Adolescents with Disabilities (AWD), and CWDs. The statistical data cited in the various reports are often not directly comparable, or if comparable, do not appear to be consistent across sources.

The most common type of information collected on PWDs include the following variables:

type of disability;
causes of disability;
age of PWD;
gender of PWD;
education status of PWD;
occupational or employment status of PWD;
number and percent of PWD who need rehabilitation;

number and percent of PWD who received rehabilitation; and
type of prosthetic, orthotic, or other rehabilitative assistive device received.

Less frequently reported data are date disability occurred; level of severity of the disability; number of disabilities; marital status and number of children; economic circumstances of families with a PWD; specific rehabilitative treatment received by PWD; client satisfaction with disability rehabilitation services received; community awareness of and attitudes toward PWDs; and awareness of disability rehabilitation services and other services available to PWDs and their families.

Even less frequently collected information includes (1) information on the durability of prosthetic and orthotic (P&O) devices and use behavior of PWDs with P&Os and other assistive devices; (2) the socioeconomic difficulties and social integration of PWDs in the community; (3) payment by PWDs or their families for disability rehabilitation services and P&O devices; and (4) qualitative anthropological information on the traditional and contemporary beliefs, practices, and misconceptions concerning different types of disabilities, their causes or origins, and related beliefs pertaining to how people relate to PWDs of various kinds.

Future disability surveys should examine the functioning level of persons with disabilities, using the functioning assessment scale in the WHO Manual, “Training in the Community for People with Disability” (Helander et al., 1989) or the adaptations of this functioning assessment scale recently made by the Ministry of Health in collaboration with AIFO.

Data from Government Ministries of Vietnam

Ministry of Education and Training (Center for Information and Statistics and Institute of Orthopedic and Rehabilitation Sciences)

1983 MOLISA Survey of Disability (1.5 million PWDs).

1994 Report Fundamental Investigation (MOLISA): Current Situation of Supplying Orthopedic Devices: Ability of Centers (13 centers).

1994–1995 MOLISA Survey of Disability (1.3 million severely or relatively disabled were identified, resulting in a prevalence of 1.8 percent of the population being severely disabled). More than one-third (35.5 percent) of all severely disabled were motor-disabled. All households in 7 provinces of the Red River Delta were surveyed in 1994. A total of 1,459,160 households in the remaining 46 provinces were surveyed through a sampling procedure. National estimates were obtained through a statistical weighting procedure. Technical support was received from an ILO consultant. The 1994–1995 MOLISA survey of severe disability covered 29 percent of the population of Vietnam as of 1995.

1998 MOLISA/UNICEF Survey of Children with Disabilities (23,000 households [HH], 16 provinces—1,148 disabled children equals 5 percent of households, or 2.8 percent of

the children living in the HHs or 1 percent of the total population living in the households) Preliminary Report, 1999 (33.4 percent motor-disabled).

1998–1999 Study of Prosthetics Durability GTZ/ISPO/VIETCOT.

Annual Statistical Yearbooks of MOLISA (1994–1998).

Annual Report of MOLISA on Status of Employment in Vietnam (1997, 1998). Annual statistics on P&O production and clients served from orthopedic rehabilitation centers and P&O workshops.

Ministry of Health (Community-Based Rehabilitation)

CBR data for selected districts and communes in 29 provinces plus approximately 20 CPCC provinces. The MOH has estimated a prevalence of disability in the general population of approximately 5.22 percent, based on a count of 238,140 disabled persons in areas covering a total population of 4,410,000—about 5.8 percent of the total population of Vietnam. Of those persons having disabilities, the MOH estimates that about half need rehabilitation. In Tien Giang Province the MOH's CBR program is reported to cover 100 percent of the population, or all 165 of the province's communes.

A total of 54 out of 61 provincial hospitals now have physiotherapy-rehabilitation departments established.

World Bank National Health Survey 2000 (sample size 53,000-61,000 HHs or 1,000 HH per province; every province, 40 clusters of 25 HHs each per province, covering a total population in the HHs of between 250,000 and 300,000) (cost of the survey/study is more than $3 million, some disability questions could be included but probably not enough disability questions and not enough detail). Fieldwork is planned for the year 2000, but as of early July 1999 the contract was not finalized and signed.

Committee for the Protection and Care of Children (Community-Based Rehabilitation)

CBR disability data.

Ministry of Education and Training/National Institute for Education and Training

NIES has conducted numerous communal-level surveys in collaboration with the MOH and several NGOs such as Catholic Relief Services and Pearl S. Buck Foundation.

Children Disability Surveys (conducted in selected districts and communes in 18 provinces between 1991-1999).

Maintains data on blindness, deafness, and mental handicaps for Inclusive Education and Special Education Programs for CWDs.

Ministry of Construction

1998–1999 Survey of Building Accessibility

NGOs with Disability Data

World Vision

1997 Survey of Beneficiaries, a detailed analysis of 1,668 amputees and paralyzed PWDs (data from 1995–1997 in selected provinces).
Disabled Person Database on more than 40,000 motor-disabled/amputees in 14 provinces (analysis). P&O service statistics for four centers (Vinh, Thanh Hoa, Quy Nhon, and Da Nang Centers). WV has provided 40,000+ P&O devices and assistance in 14 provinces in Vietnam (60 percent lower limb prostheses and 70 percent of the devices were fitted and delivered through outreach efforts).

Vietnam Veterans of American Foundation

Works with NIP and Bach Mai Hospital to provide more than 3,200 orthotics to date for children with motor disabilities. The Monitoring and Evaluation Team (MET) of VVAF is based at Bach Mai Hospital near the Rehabilitation Department and maintains and analyzes a computerized data base on more than 1,500 non-amputee motor-disabled children being treated at the NIP, and has a computerized data set of more than 3,500 non-amputee motor-disabled adults and children provided by the MOH's CBR program from the provinces surrounding Hanoi—Ha Tay, Vinh Phuc, Nam Dinh, Hoa Binh, Phu Tho, Hai Dung, Thanh Hoa, and Hanoi.

Netherlands Leprosy Relief

Maintains a computerized database of more than 10,000 leprosy cases/patients and is expanding the database to include persons with leprosy who need rehabilitation services in Vietnam, estimated to be more than 20,000. NLR has data for 24 provinces. NLR has designed a Disability Survey Data Entry Form that includes client details—name, address, district town, province, assessment score, year of birth, sex, occupation, ethnic group; mapping/picture, and/or description of disability condition. (They could add questions on who delivered the orthotic/prosthetic, the drugs used in treatment, education of the client, etc.) (Damien Foundation has leprosy data for all 61 provinces. The MOH's 24 leprosy centers also collect data.)

International Committee of the Red Cross

Maintains a register and computerized database on approximately 13,000 destitute amputees in the HCM City area. The NGO's office is based at the HCM City Orthopedic Center, where it obtains data on amputees from the center. ICRC is based in Ho Chi Minh City (HCMC). A consultant did a 1994 survey of destitute amputees in HCMC and surrounding areas covering approximately 17 million people and found 23,000 civilian amputees. The HCM Center fitted 14,354 patients from 1990-1998. From 1992–1998, the center registered 10,712 amputee patients. The total number of destitute amputees fitted is about 9,000 in 1999, and 1,500 are on the waiting list. From 1995–1998, 58 percent are BK; 22 percent are AK; 21 percent are upper limb. A total of 14 percent are women, 1 percent are children under 16, and 76 percent are war victims. If a national survey is conducted, ICRC would like to know the number of amputees in each province according to level of amputation, sex, and age (cause of amputation, occupation, and number of children taking care of an amputee).

Radda Barnen

Testing community support for the disabled in two provinces. Radda Barnen has a new intervention in six communes in six districts of Tien Giang Province and in six communes in two districts in Vinh Phuc Province. The MOH CBR data is collected and reported on for these areas.

Viet-Nam Assistance for the Handicapped

Maintains and analyzes a computerized database on amputees receiving services at the Thu Duc Center (approximately 9,000 amputees) and the Can Tho Orthopedic Rehabilitation Center (approximately 6,000). As of 1999, VNAH no longer provides prosthetics and wheelchairs at the Thu Duc Center, but now supports the HCM City orthopedic rehabilitation center. The Can Tho Center covers 8–11 provinces in the Mekong Delta area, including Dong Thap, An Giang, Kien Giang, Minh Hai, Soc Trang, Tra Vinh, Vinh Long, and Can Tho. Some clients that come to Can Tho come from Tien Giang as well, but this province is also covered by the HCM City Orthopedic Center. VNAH has coordinated the manufacture and delivery of more than 13,000 P&O devices and more than 750 wheelchairs. VNAH is also involved in a new collaborative initiative with the United States Agency for International Development (USAID), USPCEPD, and MOLISA to ensure persons with disabilities have barrier-free access to buildings and public places in Vietnam, which may involve some data collection for monitoring and evaluating this effort. The office of Disability Technical Assistance in Hanoi was set up in 1999 as part of VNAH's activities in Vietnam.

World Concern

Conducted an intervention baseline survey in December 1998–January 1999 on disabled adolescents for interventions in three provinces: Da Nang, Quang Nam, and Hai Dung. WC used MOLISA data to identify 1,300 disabled adolescents ages 13–18, who were used to select approximately 380 adolescents with disabilities (AWDs) for a vocational training intervention. WC also conducted a training needs assessment survey in March–April 1999.

Catholic Relief Services

Baseline and midterm evaluation data for IE project for CWD obtained and reviewed; work in five provinces: Ha Tay, Hoa Binh, Ha Nam, Quang Ninh, Ninh Binh, and Hanoi.

Pearl S. Buck International

Baseline data from six provinces obtained and reviewed for education project for hearing impaired.

Komittee Twee

In the process of conducting a survey for a project to train teachers of blind children. Also has monitoring data for education projects in the northern, central, and southern regions for hearing-impaired and intellectually disabled children.

Associazione Italiana Amici di Raoul Follereau

Collaborates with MOH and has CBR disability data and reports for selected CBR communes in five provinces surrounding Hanoi that are supported by AIFO—Ha Nam, Thai Binh, Nam Dinh, Ninh Binh, and Hoa Binh.

Handicap International

Works with CBR disability data and helps the children's orthopedic rehabilitation center in HCM City (formerly known as the children's polio center) collect follow-up information on clients following surgery and fitting of orthopedic devices. Obtaining more precise follow-up information in 150 communes in 7 districts in 3 provinces. Involved in a study of reconstructive surgery for leprosy patients and a survey of causes of amputee disability in Quang Tri province.

Prosthetics Outreach Foundation (Ba Vi) data

Produced 3,000 prostheses for amputees in 14 provinces and supported the Prosthetic Outreach Centre (POC). POF has used the Computer Aided Design-Computer Aided Manufacturing (CAD-CAM) computerized manufacturing technology to produce 7,000 artificial limbs.

Save the Children/UK

Maintains a small database in HCM City for its Disability Project on Care in the Community, awareness raising about disability, and education and vocational rehabilitation for disabled children or adolescents ages 13–18.

Safe Vietnam Program

A new program initiative co-sponsored by the U.S. Embassy, UNICEF, and the Government of Vietnam. The program will look at five safety themes in an effort to prevent injury, disability, and accidental death in Vietnam. The five themes are as follows:

(1) safe on the road,
(2) safe at work,
(3) safe at home,
(4) safe in the community, and
(5) safe at school.

Data will be examined to assess the current situation and the areas of greatest need for prevention of injury and disability. A National Safety Conference is planned for late September 1999.

Key Issues and Problems with Disability Data in Vietnam

1. Overlap exists in the provision of some disability services and duplication in the reporting of disability services (e.g., prosthetics for amputees).

2. MIS forms are missing data. Age, work status, and the specific type of disability in CBR data are not reported in every case.

3. The classification categories of some types of disabilities in some surveys or CBR program statistics are vague—"mental problem, upper extremities affected, squinting eyes, or mobility problem."

4. Coverage is incomplete. Estimates of disability prevalence are sometimes based on surveys, MIS data, or CBR outreach services, none of which cover all provinces (districts and communes).

5. Some types of disability are misclassified. For example, strange behavior, mental illness, mental retardation, epilepsy/fits, and learning disability, tend to be mixed together as if they were all one type of disability problem.

6. Organizations collecting data may under-report or over-report some types of disabilities. The degree of under-reporting may depend on the reporting organization's area of focus and expertise in the field of disability. For example, MOLISA focuses on rehabilitation of persons with motor disabilities and war-related disabilities, primarily amputees; MOH covers all disabilities in its CBR program, although leprosy is managed by a separate program; and MOET/NIES focuses more on learning disabilities and sight, speech, and hearing disabilities, which require specific educational interventions, and less so on motor disabilities and strange behavior. In disability prevalence surveys, MOLISA reports a much lower prevalence of learning disabilities than NIES. Under-reporting may be due in part to difficulties in precisely defining what (and to what degree of severity) constitutes a learning disability, strange behavior, a speech impediment, and a vision disability. There is also evidence of over-reporting of some disabilities in some studies—e.g., vision disabilities—and underreporting of others—e.g., learning disabilities. These and other factors contribute to the wide variations in estimates of prevalence of disabilities.

7. Opportunities to collect data on disability are missed. For example, UNICEF/MOLISA's survey of children with disabilities in 16 provinces could have collected data on adults with disabilities in the households as well for little extra cost. The 1999 national census could have included questions on disability. In the summer of 1999, MOLISA conducted a nationwide census-type count of Agent Orange victims. Perhaps other disability information could have been collected at the same time. An opportunity that should not be missed is to ensure that as many comparable questions on disability are included in the upcoming World Bank/MOH/GSO Vietnam National Health Survey to be conducted in every province in the year 2000. However, this World Bank/MOH/GSO survey is unlikely to provide the necessary detail on disability because it must cover such a wide range of health topics. The 1999 decennial census will produce up-to-date population data, but unfortunately no direct questions on disability were included. Although, almost two years before the census interested parties tried to have a question on disabilities included, it was still too late to change the census questionnaire. Nonetheless, the recent 1999 census population data and updated census enumeration areas can be used for establishing an up-to-date sampling frame for a national disability survey, should one be necessary.

8. Results from previous surveys and disability project service statistics have not been well disseminated. The data are rarely used to plan and make decisions at the national or local level. Some additional important disability questions could have been included (Satisfaction of PWDs and their families with physical rehabilitation, P&O devices supplied, inclusive and special education programs, and vocational training received, if any.

9. More detailed information is needed. Such information would include the location at which clients received prosthetic and orthotic devices; the quality of rehabilitation services; the extent of social support for persons with disabilities; and the ways in which educational and vocational training have affected PWDs' lives socially and economically.
10. More qualitative data (FGD and IDI) is needed on persons with disabilities, providers/rehabilitation experts, and program managers to complement the more quantitative information from surveys of prevalence of disability and the service statistics on numbers of prosthetics and orthotics manufactured, distributed, and fit. Qualitative data can provide rich information on issues of people's general beliefs on disabilities and the reasons why disabled persons and rehabilitation experts behave in a certain way (e.g., why some disabled persons accept or do not accept services, continue or stop using devices; pursue or do not pursue education and vocational training; and integrate or do not integrate into the social structure of the community); reasons for disabled clients' satisfaction or dissatisfaction with services; and the needs, attitudes, and life circumstances and difficulties of persons living with disabilities.

11. A more holistic approach to monitoring and reporting on PWDs is needed in terms of the types and range of disability services they receive. For example, information should be obtained not only on prosthetics fit, but on the continued use of prosthetics, educational, and vocational training received, and on the greater social and geographic mobility resulting from persons with disabilities receiving prosthetics or orthotics. Data tend to be collected only for specific intervention activities—targeting one aspect of the PWD rehabilitation only.

12. Government ministries and NGO partners need a higher level of cooperation, coordination, and collaboration in data collection efforts. A more unified approach is needed with regard to types of information collected, coverage, comparability of data, reporting formats, the systematic sharing of disability data, and dissemination efforts to maximize the usefulness of the data. An organized, unified effort will yield a more cost-effective, systematic approach to meeting the needs of persons with disabilities.

13. Organizations, projects, and interventions have different data needs for the different target groups they serve (e.g., physical rehabilitation, inclusive education, and vocational programs, or programs targeting children ages 0–15, adolescents ages 13–17, amputees only, motor-disabled only, blind only, deaf only, war veterans, destitute war victims, or mentally disabled). Even among organizations focusing on children with disabilities, age categories vary, e.g., the MOLISA/UNICEF children disability survey defines children as ages 0–17 years, Radda Barnen Inclusive Education Interventions define children as ages

0–16 years, and the MOH rehabilitation centers and NIES surveys define children as ages 0–15 years.

14. Different data are needed for rehabilitation of persons with different types of disabilities (amputees and motor-disabled; sight, hearing, and speech impaired; or persons suffering from mental retardation, strange behavior/schizophrenia, or epilepsy). For example, different types of treatment are needed for different causes and types of motor-disabilities (e.g., polio victims, leprosy patients, and amputees from land mines). The medical care, physiotherapy, educational activities, vocational training, and social- and psychotherapy for persons with these different types of disabilities may vary significantly, thus requiring different types of data and variables to monitor the progress of interventions and evaluate impacts).

15. Government ministries, NGOs, and donor agencies have different priorities for the use of data and limited resources to collection data. These factors limit the type and amount of data collected for any given disability intervention or program.

16. The levels of severity of disabilities—mild, moderate, severe, or requiring rehabilitation, requiring devices—are not always clearly articulated or distinguished in many of disability data collection efforts. There are a few exceptions to the general problem of lack of clarity in distinguishing levels of severity of disability. For example, NLR has a detailed computerized classification of the stages of persons with leprosy, which specifies in the client service records the exact location and nature of a disability in the body. With regard to amputees, MOLISA and some NGOs document details regarding the location on the body where a limb has been lost and the degree of difficulty in movement. When classifying the degree of handicap experienced by individual PWDs or measuring progress in a PWD's rehabilitation therapy, the MOH's CBR program uses an adapted version of WHO's 23 indicators of level of daily functioning, with a scoring scale for each item.

PREVALENCE OF DISABILITY AND CAUSES

Overall Prevalence of Disability in Vietnam

Most ministries and NGOs acknowledge that no truly reliable, complete, and accurate statistics exist on the prevalence of disability for Vietnam as a whole. Disability prevalence rates cited are not based on a representative sample of all provinces or do not include all disabilities in the calculations. Reports on the overall prevalence of disabilities in Vietnam vary widely (between 2 to 10 percent), none of which are based on a complete and total count across all provinces. WHO's projected disability prevalence rate of 6–7 percent for the Southeast Asia region is sometimes cited as the best estimate. Disability prevalence estimates based on various surveys and CBR assessments vary even more widely for selected provinces, districts, and/or communes, ranging from less than 2 percent to 13 percent. The range in estimates is due, in part, to variations in the frequency of specific disabilities throughout the country (e.g., differences in prevalence of motor disability due to geographic variations in the frequency of amputees, congenital birth defects, polio, or cerebral palsy). However, the wide range in disability prevalence estimates from different data sources is partly due to the different methods used in data collection on disability, are differences in definitions used in disability. Variations in estimates of disability prevalence are also due to a tendency to over-report or under-report specific types of disability in different geographic areas and to different organizations collecting disability data.

Table 1 shows estimates of the overall prevalence of disability in selected areas, provinces, districts, and communes in Vietnam for the total population and/or for children, from a number of different sources. The estimates pertain to the 1990-1999 period.

Reports and documents written by disability experts and senior officials in the various ministries (e.g., the MOH, MOLISA, and MOET) and by various NGOs, cite a fairly wide range of numbers and prevalence rates for disability in Vietnam. For example, the MOH cites an overall disability prevalence rate of 5.22 percent for Vietnam in 1998 based on CBR data from 730 communes in 70 districts of 29 provinces, while in the same document the authors point out that survey rates of disability prevalence fluctuate from between 2–10 percent (Pham Quang Lung, 1998).

Little or no effort has been made to assess the quality and accuracy of the data on disability from the various sources. In some sources, specific disabilities such as learning disabilities appear to be underestimated, while in other sources some disabilities such as speech and vision impairments may actually be overestimated. The less visually obvious the disability, the more likely it will be missed or misclassified. For example, amputees, those suffering from Down's syndrome, and those with club foot will be more easy to identify and quantify than someone with a partial hearing, sight, or speech impairment. It may be difficult for some CBR workers collecting data to correctly identify and classify an epileptic, schizophrenic, or mildly mentally retarded or learning

Table 1. Estimates of Disability Prevalence for the Total Population and for Children, in Selected Areas and from Various Sources: 1990–1999

Prevalence of Disability in Vietnam							
Area of Vietnam	**Population of Area**	**Year**	**Overall Prevalence % (of total population)**	**Prevalence of Disability Among Children %**	**Prevalence of Severe Disability %**	**Estimated Number of Disabled**	**Data Source**
National Children Ages 0-17	76,394,0007 7,263,000 Total 29,675,000 30,130,000 Children ages 0-17	1998 1999 1998 1999		2.80% of children ages 0-17 have partial or severe disabilities	1.41% of children 0-17 have severe disabilities	844,000 Children with disability (CWD) in 1999 (partial and severe disabilities)	MOLISA/ UNICEF Survey of 16 provinces (results are preliminary)
National (730 com in 29 provinces) Children Ages 0-15	76,394,000 77,263,000 Total 27,775,000 28,200,000 Children Ages 0-15	1998 1999 1998 1999	5.22%	3.60% of children ages 0-15 (based on reported 1 million disabled children in 1998	1.57% of total population (or 30% of all disabled)	4,033,100 PWDs in 1999 1,000,000 CWD in 1998	MOH CBR data from 730 communes in 70 districts of 29 provinces
National	66,600,000 - 77,263,000	1990- 1999	Between 2%-10% (most say between 5% and 7 %) (some use WHO estimates for region)		`	Range of 1.6 million to 7.7 million PWDs implied by the prevalence rates cited (most say between 3.5 and 6 million)	Rates cited in reports, speeches, presentations by MOLISA, MOH, and MOET officials (see References)
National Children Ages 0-15	69,163,500 Total 25,245,000 Children ages 0-15	1992		4.87 % (implied by reported 1,230,455 disabled children 0-15)			MOLISA Statistics (See Le Van Tac, Pham Kim, Nguyen Thi Mai Ha, 1998)
National		1992-1997				Estimates of CWDs from 1992-1997: range from a low of 215,485 (CPCC, 1995) to a high of 1,230,455 (MOLISA,92)	Bond and Hayter, 1998
Thai Binh Province	Tien Hai District 10 communes	1998	4.12 % Range (3.12-4.79%)		1.22% (or 29.5% of all disabled)		MOH/AIFO CBR Survey
Area of Vietnam	Population of Area	Year	Overall Prevalence % (of total population)	Prevalence of Disability Among Children %	Prevalence of Severe Disability %	Estimated Number of Disabled	Data Source
Nam Dinh Province	Y Yen District	1997	7.20%		2.04% (or 28.3% of all disabled)		MOH/AIFO CBR Survey

Vinh Phuc Province	42 communes	1998	7.20%	6.2% of children 0-15 (or 32% of all disabled)			Vinh Phuc's People's Committee (June20,1998)
Hoa Binh Province	6 communes in Lac Son District	1996	2.47% (range of estimates 0.9%-5.3%)	1.5% of children ages 0-15			Bierman, 1997
Ha Tay Province	4 communes	1997	10.4%		2.63% (or 25.3% of all disabled)		MOH/Ha Tay PHB Special CBR Study (Dr. Thuy)
Ha Tay Province	Thuong Tin District 14 communes	1996		2.63% of children 0-15	0.58% of children 0-15 (or 22.2% of alldisabled children)		MOET/NIES Children Disability Survey
14 Provinces	19 Districts	1991-1996		3.0% of children 0-15	0.93% of children 0-15 (or 31% of all disabled children)		NIES/CSE Surveys on Children with Disabilities (Le Van Tac et al, 1998)
Vinh Phuc Province	6 RB IE pilot communes	1998		2.22% of children 0-16 (range 1.7%-3.2%)			MOET/NIES/ RB IE Survey
Hoa Binh Provinces	Luong Son District	1999		2.48% of children 0-15	0.56 % of children 0-15 (or 22.6% of alldisabled children)		MOET/NIES Children Disability Survey
Quang Ninh Province	Yen Hung District	1999		2.00% of children 0-15	0.58% of children 0-15 (or 29.0% of alldisabled children)		MOET/NIES Children Disability Survey
Ninh Binh	Yen Khanh District	1999		2.20% of children 0-15	0.64 % of children 0-15 (or 29.3% of alldisabled children)		MOET/NIES Children Disability Survey

disabled person. To accurately identify and classify PWDs, CBR workers or disability survey interviewers may need more in-depth training in data collection than what is normally provided.

Disability prevalence estimates for Vietnam (all 7 WHO categories of disabilities combined) from MOLISA's 1994–1995 survey totaled approximately 2 percent for relatively severely disabled (about 1.3 million more severely disabled people or 31 percent of all disabled people, which translate to a total of about 4.2 million disabled persons). The MOH's CBR data for 29 provinces, 70 districts, and 730 communes in 1998 was 5.22 percent, which would translate on a national level to 4.0 million PWDs, of which 30 percent are estimated to be children ages 0-15 (or 1.2 million disabled). Other MOLISA, MOH, and MOET sources and officials cite disability prevalence of 6–7 percent, or 4.6–5.4 million disabled in 1999) to a prevalence estimate of 10 percent for countries in this region made by WHO. Such an estimate implies that in 1999 Vietnam has about 7.7 million PWD, assuming the rate applies to the 1999 census adjusted population in Vietnam of 77,263,000.

MOLISA Surveys: Estimates of Disability Prevalence (National, Regional, Provincial, District, and Commune)

Attempts to measure the number of PWDs at a national level date back to the 1980s. MOLISA conducted large-scale surveys of disability in 1983, in 1994–1995, and in 1998 (Vietnam Child Disability Survey).

In 1983, MOLISA in cooperation with the Ministry of Health and the Department of General Statistics undertook a survey of the disabled population. The 1983 survey estimated a total of 1,485,000 PWDs or 2.7 percent of the population of Vietnam. The survey estimates included 133,000 amputees, and 226,000 polio-affected people contributing to an estimated total of 810,000 motor disabled persons (or 54.5 percent of PWDs). An additional 120,000 learning disabled (mental retardation), 235,000 visually disabled, and 165,000 hearing disabled persons were estimated based on the survey results. Other disabilities accounted for the remaining 155,000 PWDs. A total of 64 percent (950,000) of the PWDs were working (Hai, 1993).

Some information on disability at the national level was also obtained from the 1989 Population Census. The 1989 Population Census of Vietnam collected information on persons aged 13 years and older who "were economically inactive and were unable to earn their living as a result of their health condition." From this census question a total of 2,368,085 persons 13 years and older were reported to be disabled, or 5.7 percent of the total population aged 13 years and older, or 22 percent of the economically inactive population (Bierman, 1997). It should be pointed out that this category of disabled persons identified through this census question excluded disabled children, employed disabled persons, and economically inactive disabled persons who could work if they wanted to (Bierman, 1997).

A Radda Barnen 1998 briefing paper on the situation of people with disabilities in Vietnam cites a 1991 MOLISA survey conducted in 30 provinces and cities that showed a prevalence of PWDs of 6.8 percent in the total population in 1991 (Radda Barnen, 1998).

MOLISA's 1994–1995 survey examined only the more severely disabled persons and excluded mildly disabled persons. The survey results showed an estimated 1,297,695 severely and moderately severely disabled persons. This number included 525,331 motor disabled persons—106,645 amputees, 151,788 paralysis cases, and 183,731 persons with limb deformities); 232,624 with sight disability; 136,381 with hearing disability, 117,389 with speech disability, 206,351 with learning disabilities; 135,003 with strange behavior disability; and 128,205 with other disabilities. The prevalence of more severe disabilities in the Vietnamese population was estimated at 1.81 percent, with the prevalence among males estimated at 2.34 percent and among females at 1.28 percent.

In 1998, MOLISA conducted the Vietnam Child Disability Survey, with financial and technical support from UNICEF. The preliminary report and accompanying tabulation reports have been drafted and are currently under review for final revision. The survey covered 23,040 households in 16 provinces. A total of 1,148 CWDs (ages 0–17 years) were identified in the survey. This number represents 5.0 percent of the households surveyed or 2.8 percent of the 41,037 children ages 0–17 living in the households included in the survey. This translates to CWDs being about 1.0 percent of the total population (114,816) living in the households included in the survey. About one-third of the children with disabilities were motor/movement-disabled.

Community-Based Rehabilitation Program Estimates of Prevalence of Disability

The MOH's CBR program, which has been in effect and expanding nationwide since 1987, now includes more than 30 provinces, covering some 85 districts and 890 communes. Based on a review of CBR disability data for all communes covered under the existing CBR program, the MOH estimates the overall prevalence of disability to be 5.2 percent of the general population. This estimate is supposed to include seven general categories of disabilities:

movement
hearing and speech
vision
learning disabilities
strange behavior
epilepsy
loss of sensation/leprosy

Three NGOs—AIFO, Radda Barnen, and World Vision International—have helped support the establishment of CBR in 15 provinces. The Government of Vietnam's support of CBR is primarily through the MOH, CPCC, and Vietnam Rehabilitation Association (VINAREHA).

A 1998 CBR survey of disability in 10 communes of Tien Hai District of Thai Binh Province (MOH/AIFO) showed a disability prevalence rate of 4.1 percent, while a 1997 survey of disability in Y Yen District of Nam Dinh Province resulted in a disability prevalence rate of 7.2 percent.

A 1996 CBR house-to-house survey in Lac Son District of Hoa Binh Province revealed a disability prevalence rate of only 2.5 percent. The MOH indicated that number is likely to be an underestimate because only the head of household was interviewed. Other members of the households were not examined, so only the most severe cases are likely to get reported.

A special, more in-depth survey of disability in four communes of Ha Tay Province revealed that although the routinely collected CBR data showed a disability prevalence rate of only 5.4 percent, the more in-depth assessment revealed a disability prevalence rate of 10.5 percent or about double that of the standard CBR data. However, reported vision disabilities are unusually high, which indicates that vision disabilities may have actually been overestimated in the more in-depth assessment (PHB-Ha Tay, 1998).

Radda Barnen has worked with the MOH's CBR program in Tien Giang Province since 1987. According to the MOH, Tien Giang Province has complete CBR coverage and reporting for all 165 communes, towns, and urban precincts in the province. Tien Giang is the only province that appears to have complete coverage of CBR reporting for the entire province. The prevalence of disability in Vinh Phuc Province was estimated at 7.2 percent in 1998, based on CBR data from 42 communes in five districts of Vinh Phuc Province, with motor disabilities accounting for 17.1 percent of all PWDs.

In the six communes of Vinh Phuc Province supported by Radda Barnen, the prevalence of CWDs (ages 0–16 years) is estimated to be 0.82 percent of the total population and 2.22 percent of the child population (ages 0–16) in the combined six communes in 1998.

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Prevalence of Specific Disabilities and Causes

Table 2 shows the distribution of disabilities by specific types of disability for all PWDs and/or for children with disabilities for different areas of Vietnam, from nine different sources of data (i.e., various surveys and CBR data). Data from the various data sources vary widely with regard to distribution of PWDs and CWDs by type of disability. Mobility disabilities comprise 19–38 percent of all PWDs. Hearing and speech disabilities comprise 17–27 percent of all disabilities. Vision disabilities comprise 11–27 percent of all disabilities. Estimates of learning disabilities vary the most from one data source to another, ranging from only 5 percent of all PWDs in one survey reported as having a learning disability compared to 35 percent in a survey of CWDs.

Table 2. Distribution of Disabilities by Specific Types. From Various Sources, for All Ages and for Children: 1991–1999

Types of Disability in Vietnam Percent Distribution of PWDs									
Type of Disability	**MOLISA Disability Survey (severely disabled only) 1994-95**	**MOH CBR data 730 com 1998**	**NIES Surveys 187 com (Children Ages 0-15) 1991-93**	**Thai Binh Province MOH/AIFO 10 com 1998**	**Ha Tay Province, MOH 8 com Special Survey 1996**	**Ha Tay Province NIES 14 com (Children Ages0-15) 1996**	**Vinh Phuc NIES 6com (Ages 0-15) 1998**	**MOLISA /UNICEF Survey 16 prov (Children Ages 0-17) 1998**	**TienGiang Province MOH/RB 6 com (Children Ages 0-16)1998**
Mobility/ Motor/ Movement	35.5	38.0	19.6	28.7	26.0	18.9	32.1	22.4	22.7
Hearing and Speech/ Communi-cation	9.1 + 7.9 = 17.1	22.0	11.2 + 17.0 = 27.2	23.0	20.1	7.5 + 16.7 = 24.2	22.0	9.7 + 21.4 = 31.1	19.4
Vision/ Sight/	15.7	11.0	15.1	26.8	17.5	20.0	14.0	14.6	21.6
Learning/ intellectual mental	9.1	23.0	25.8	5.4	6.1	24.8	15.8	3.6	35.3
Strange Behavior/ ErraticBeh	13.9	4.0	1.2	12.4	7.7	NA	5.1	16.2	0.4
Epilepsy/ Fits	Included With SB	2.0	NA	4.9	5.5	NA	11.0	Included With SB	0.7
Loss of Sensation/ leprosy	NA	Included With EP	NA	0.3	1.2	NA	NA	NA	NA
Other Disabilities	8.7	0.0	10.1	2.4	15.9	12.1	0.0	12.0	0.0
Total (100 %)	100	100	100	100*	100*	100	100	100	100

NA – indicates information not reported separately
SB – indicates "strange behavior" category
* -- indicates percentages in the column adds up to slightly more than 100 % (possibly due to multiple disabilities).

Motor Disability

Amputees

In MOLISA's 1994–1995 survey, approximately 1.8 percent of the population was estimated to have severe or relatively severe disabilities that required social assistance (1.3 million including 525,331 with severe motor disabilities, of which 106,645 are amputees). The 1983 MOLISA survey estimated 133,000 amputees, out of an estimated total of 1,485,000 severely disabled.

In terms of the motor-disabled, the estimates based on CBR data are 1.6 million (38 percent of all disabled persons. Recent estimates of the number of amputees in Vietnam range from 70,000 to 200,000 (Boddington, 1998). A few years ago, ICRC reported an estimate of 1 amputee per every 250 persons in Vietnam which, if applied to the 77.3 million population in 1999, would translate to more than 300,000 amputees, a figure believed to be much too high by most. World Vision International established a prevalence of amputees of 0.3 percent based on a survey in the central part of the country, which translate to 1 amputee for every 330 persons. This rate is also likely to be too high to be representative of the whole country. Nonetheless, applying that rate nationally in 1997 yields an estimate of about 230,000 amputees. More recently, one NGO professional staff cited an estimate of amputees of only about 1 in 1,200 persons, although the estimate had no study or statistical basis. Nevertheless, applying the 1 in 1,200 rate would result in an estimate of only about 65,000 amputees in 1999. Thus, we see that the range of estimates even among experts working in this field differs by as much as a factor of four.

Thomas Koelker's 1994 survey for ICRC of a sample of communes in 11 provinces estimated 23,000 amputees in a population of 17,000,000 persons. This translates into a rate of one amputee for about every 750 persons (or 0.135 percent). Applying this percentage to the 1999 population of Vietnam yields an estimate of approximately 104,305 amputees, which is quite close to the MOLISA estimate of 106,645 (for 1995).

MOLISA's 1994–1995 survey provides information on amputees according to the following:

age
gender,
cause of disability
education and employment status
rehabilitation status
other variables

Paralysis

Estimates of the number of paralyzed persons in Vietnam from the 1994–1995 MOLISA survey total 151,788: 22,209 totally paralyzed, 18,797 half-paralyzed, and 110,782 with an arm or leg paralyzed. The number of paralyzed persons who would benefit from a wheelchair and the number and proportion of those needing a wheelchair who already have one should be estimated and reported, so that the production of wheelchairs can meet the demand or need for these devices nationwide.

MOLISA's 1994–1995 survey provides information on paralyzed persons according to the following variables:

age
gender,
cause of disability
education and employment status
rehabilitation status

Other Motor Disabilities

Of the 525,331 severely motor disabled reported in MOLISA's 1994–1995 survey, more than half (266,000) fall into this category (i.e., excluding 152,000 paralyzed persons and 107,000 amputees). For example, MOLISA's 1994–1995 survey reports 183,731 persons with limb deformities.

These other motor disabilities (other than amputees and paralysis) are due to numerous causes including the following

- polio
- cerebral palsy
- scoliosis
- club foot
- knee disarticulation
- accidents
- congenital birth defects causing limb deformities
- war-related causes
- environmental factors

Some detailed data are collected in MOLISA surveys, MOH CBR data, and at rehabilitation centers, rehabilitation departments, and rehabilitation centers specifically for children. Information on the magnitudes and trends in other motor-disabilities by age, gender, cause, education and employment status, and rehabilitation status are available from some rehabilitation centers, NGO projects, MOLISA surveys, and MOH CBR data. Information on surgical interventions and orthotics production for these motor disabilities is also available.

Sight Disability/Vision Impairments

Estimates vary widely with regard to the number of blind persons and vision impaired. The Vietnam Blind Association (VBA) uses the World Blind Union's estimate of 1 percent global prevalence, and estimates that Vietnam has 600,000–770,000 visually disabled persons, and that approximately one-third (260,000) are totally blind.

MOLISA's 1994–1995 survey indicates that Vietnam has 232,624 persons with more severe vision disabilities (or 15.7 percent of all persons with severe/relatively severe vision disabilities). The severe vision disabilities included in the MOLISA Survey were as follows:

Blind (including color blindness) for all ages, both eyes or one eye, and

Partially sighted

Those who are under or of the working age cannot see things less than three meters, or cannot count fingers in a distance less than three meters, and

Those who are above the working age who cannot see fingers in a distance of less than one meter.

CBR data for 730 communes and 29 provinces indicate that 11.0 percent of all disabled persons have vision disabilities—11.0 percent of the 5.22 percent of the total population that is disabled. Therefore, (.11 X .0522 = .0057) 0.57 percent of the total population have a vision disability. In 1999, this figure would translate into 440,400 vision disabled persons nationally, assuming that the MOH CBR data is representative of the entire country—which may not be a valid assumption. This estimate serves as the low end of the range of estimates obtained on vision disabilities in Vietnam.

VBA and UNICEF reports state that approximately 90,000 children have vision disabilities and 30,000 children are blind. The MOLISA/UNICEF 1998 Children Disability Survey estimates that 14.6 percent of all children with disabilities have vision disabilities (14.6 percent of the 2.81 percent of the total population of children ages 0–17). Therefore, (.146 X 0.0281 = .0041) 0.41 percent of the total population ages 0–17 have vision disability. In 1999, this figure would translate nationwide to 124,000 children ages 0–17 being severely (74,000) or partially (50,000) visually disabled (with mildly disabled children being excluded from this analysis).

In summary, the range of estimates of vision disabilities in Vietnam in 1999 is between 440,000 and 800,000 visually disabled persons, with as many as 230,000 to 260,000 persons who are blind.

Deaf/Hearing Disabilities

Hearing disabilities are often reported together with speech/communication disabilities. However, separate estimates for hearing and speech disabilities will be provided here. The Hanoi Pedagogic University's TDCSE cites estimates of 400,000 persons with hearing disabilities in Vietnam (approximately 200,000 deaf persons and more than 200,000 persons with some partial hearing disabilities).

The various assessments of disability in Vietnam show 8–11 percent of all disabled persons having hearing disabilities. Use the middle of the range of estimates of the total number of disabled persons in Vietnam (4.0–4.5 million) and applying 8–11 percent for hearing disabilities, yields an estimate of 320,000–495,000 persons with hearing disabilities.

The 1994–1995 MOLISA survey indicates a total of 136,381 persons with more severe hearing disability. Included in the MOLISA Survey category for hearing disability are the following:

Both ears are totally deaf for all ages;

Both ears are severely deaf (>81dB) for all ages; or

One ear is totally deaf (>91dB) and the other is slightly deaf (26-40dB) for those who are under or of the working age.

WHO estimates that for this region of the world the prevalence of deafness is 1 per 1,000 population (or 0.1 percent), plus an additional prevalence of hearing impaired of 5 per 1,000

(or 0.5 percent). Using this combined percentage of 0.6 percent applied to the total Vietnamese population results in an estimate of 464,000 persons with hearing disabilities in 1999, 77,000 of which are deaf. WHO estimates the world average prevalence of hearing disabilities at 0.8 percent.

Thus, the current estimates of deaf persons in Vietnam is probably 80,000–200,000 persons, and the range of estimates of all persons with hearing disabilities (including the totally deaf and those with severe, moderate, and mild hearing disabilities) is 320,000–500,000 persons.

Speech Disabilities

MOLISA's 1994–1995 survey produced national estimates of 117,389 more severely speech disabled persons. This number includes only persons with the following speech disabilities:

- **Mute:** those who cannot speak letters, only pronounce inarticulate sounds, and have to use hands to express ideas. This is applied to all ages, except for children under the age of speaking.

- **Speech impediment:** those having difficulty pronouncing words and often use hands to express ideas. These estimates applied to all ages, except for children under the speaking age and very elderly persons. The estimate does not include the vast majority of mild speech disabilities (64–78 percent of all speech disabilities are mild, at least among children of school age 5–17) (Chalker, 1994, MOLISA/UNICEF Vietnam Child Disability Survey, 1998). Factoring estimates of mild speech disabilities results in a total number of speech disabilities of 326,000 (117,389/0.36)–534,000 (117,389/0.22). However, for the majority of persons included in these later estimates formal speech rehabilitation interventions may not be necessary.

Speech disabilities are estimated to comprise 17–21 percent of all disabilities in children. Using the middle of the range of estimates of overall disability prevalence among children of 3 percent and multiplying by 17–21 percent yields an estimate of 0.51–0.63 percent of the child population having some kind of speech disability.

Learning Disability, Intellectually Disabled, and Mental Retardation

The TDCSE cites an estimate of approximately 500,000 persons who are intellectually disabled in Vietnam. In 1983, MOLISA estimated that Vietnam had 120,000 persons with mental retardation. Terminology and definitions of the intellectually disabled have changed over the years. An IQ of below 70 qualifies a person to be included in this category, but it is not always possible to assess IQ and standard IQ tests used in different cultural contexts have been questioned as a valid measure of some individuals learning ability.

MOLISA's 1994–1995 survey reported a national estimate of 206,351 persons who are more severely mentally disabled. However, the definition of mental disabilities and the strange behavior categories in the 1994–1995 survey were not well-defined. Thus, it is not clear whether the elements measured in either category are accurate or whether they measure "learning disabilities."

The MOH's CBR disability reporting system based on 730 communes and 29 provinces indicates that 23 percent of all persons with disabilities in the areas covered had learning disabilities. Extrapolating from these figures to obtain national estimates of learning disabilities (.23 X 5.22 percent) yields and estimate of 1.2 percent of the total population suffering from learning disabilities. In absolute numbers, this figure translates into almost 1 million persons with learning disabilities in 1999 (.012 X 77,263,000 population = 927,000).

In children disability assessment studies reviewed for this report, 4–35 percent of all disabled children were intellectually/learning disabled, obviously the result of differences in definitions and reporting biases. The average percentage of children's disabilities that are learning disabilities is 22 percent. This figure would result in a 1998 estimate of 174,000 children ages 0–17 years with learning disabilities (.22 X 2.8 percent X 28,200,000). A 1998 UNICEF report cites the number of children with learning disabilities at 100,000, but this may be for a slightly smaller age range of children (Bond and Hayter, 1998).

Disabilities such as learning disabilities/mental retardation and mental illness/strange behavior (see following section) may prove to be the most difficult to assess in a large survey. These disability groups include a wide range of conditions and behaviors and tend to be the groups most misunderstood in different cultures and the most difficult to identify and define quickly and accurately.

Mental Illness and Strange Behavior

This category has been difficult to measure and a range of behaviors is sometimes included here. Sometimes epilepsy is included together with the strange behavior category (mental illness, schizophrenia, etc.).

The 1994–1995 MOLISA Disability Survey gives an estimate of 135,003 persons in this category.

The MOH's CBR reporting system for 730 communes and 29 provinces estimates that 4 percent of all persons with disabilities have the strange behavior disability. Multiplying 4 percent by the overall disability prevalence of 5.22 percent yields a 0.21 percent prevalence of strange behavior disability in the general population (.04 X 5.22 = 0.21 percent). This figure translates into 162,250 persons with strange behavior disability in 1999 (0.0021 X 77,263,000 = 162,250).

Among children, it may be even more difficult to measure this disability. Schizophrenia usually does not manifest itself until late adolescence and clinical depression and strange behavior in children may be more difficult to assess accurately.

Given the limitations in the quality of data for both children and adults on this disability, the range of 135,000–165,000 persons suffering from strange behavior disability is the best available.

Epilepsy, Leprosy, and Other Disabilities

Epilepsy is estimated at about 1 percent by the CBR system. This figure would translate to approximately 40,000 persons with disabilities due to epilepsy/fits in 1999 (.01 X 5.22 percent X 77,263,000 = 40,331).

According to the NLR, Vietnam has 35,000–45,000 leprosy patients, with about half of these cases having disabilities, some of them multiple. Leprosy (associated with a loss of sensation as the disease progresses) is estimated at 1 percent of all disabled persons in the MOH's CBR surveillance system. This also translate to about 40,000 leprosy patients in 1999 (.01 X 5.22 percent X 77,263,000 = 40,331). Roughly half or about 20,000 leprosy patients are considered to be disabled by the disease. In Vietnam, most leprosy-related disability occurs in persons over 50 years old. Less than 8 percent of newly detected cases are to children ages 15 years and under. In 1999, leprosy is on the verge of being eliminated in every province (i.e., for elimination you must have case detection rates below 1 in 10,000 population) (eradication implies case detection rates of less than 1 in 100,000 population) (personal communication with Jan Robijn, NLR, June 15, 1999).

The "other disabilities" category used in the various studies of disability includes a range of 0.0–15.9 percent of all disabilities counted in the various surveys, assessments, and CBR surveillance systems cited in Table 2. This residue category sometimes includes leprosy and epilepsy, and may include those suffering from HIV/AIDS.

Some Vietnamese authorities report that exposure to the chemical Agent Orange caused some 50,000 children to be born with deformities to parents exposed to the chemical agent in Vietnam, but it is difficult to distinguish the chemical as a causal factor without conducting case-control studies in exposed and unexposed areas and more epidemiological studies of the specific effects of Agent Orange. Some of the reported symptoms caused by Agent Orange could also be due to other congenital, disease, or environmental factors. In 1999, MOLISA has undertaken a national census of Agent Orange victims in Vietnam. The fieldwork was expected to be finished in July 1999. Some figures have already been reported for certain provinces in areas known to be exposed to Agent Orange. Reports in Viet Nam News in June 1999, cite that 1,900 out of 216,000 children in Quang Tri Province are suffering congenital deformities and disability due to Agent Orange, 116 out of 2,044 children in Cam Chinh commune are affected by Agent Orange, 96 out of 1,563 children in Cam Nghia commune are affected by Agent Orange, and that more than 2,600 victims of Agent Orange have already been assisted in Da Nang through a special fund for Agent Orange victims.

The number of children and adults with HIV/AIDS in Vietnam has grown rapidly over the past four years. Ultimately, these individuals will develop disabilities related to complications resulting from this syndrome.

The time line for this review did not allow sufficient time to evaluate the previously mentioned estimates of prevalence of specific disabilities against known levels in comparable countries or regions, or against those estimated by international organizations such as WHO and other organizations working with specific types of disabilities. There was also insufficient time to evaluate the data collected on persons with multiple disabilities.

Causes of Disability

Table 3 shows the causes of severe and moderately severe disabilities in Vietnam for 1994–1995. These data are from MOLISA's 1994–1995 disability survey. More than one-third of all disabilities combined are reported as being caused by congenital defects and more than one-third are caused by various diseases. War and war-related injuries account for about one-fifth of all relatively severe disabilities in Vietnam, whereas traffic accidents and work-related accidents and injuries combined account for less than 8 percent of all severe disabilities. Three-fourths of lower limb amputations were due to war and about 11 percent were due to traffic accidents. About half of the upper limb amputations were due to war, and one-quarter were due to traffic accidents. Congenital defects and diseases account for the vast majority of hearing, speech, vision, mental, and learning disabilities. However, war and war-related injuries accounted for more than one-quarter of mental/strange behavior disabilities.

Table 3. Causes of Moderate to Severe Disability: Distribution of Causes by Disability, 1994–1995 (MOLISA Disability Survey)

Causes of Severe Disabilities Percent Distribution						
Cause of Disability	**Type of Disability: MOLISA Disability Survey 1994-95**					
Cause	**All Disabilities** (Severe only)	**Mobility**	**Amputees Lower Limb**	**Amputees Upper Limb**	**Limb Deformities**	**Paralysis**
Congenital	34.2	25.7	1.6	6.7	33.7	28.5
Disease	35.7	32.1	4.2	3.2	26.3	57.0
Work	2.0	3.4	4.6	6.2	4.1	1.7
Accident	5.5	8.5	10.7	25.4	9.7	3.7
Traffic	19.1	26.6	74.7	52.3	21.7	7.0
Accident	3.6	3.7	4.2	6.3	4.4	2.0
War/Related						
Other Causes						
Total (Number)	**100 (1,312,690)**	**100 (534,613)**	**100 (65,171)**	**100 (41,461)**	**100 (183,731)**	**100 (151,788)**
Cause	**Hearing**	**Speech**	**Sight**	**Learning**	**Strange Behavior**	**Other**
Congenital	48.5	79.9	19.4	38.3	48.7	30.7
Disease	36.6	16.5	49.3	46.3	22.1	24.1
Work	0.5	0.3	1.6	1.3	0.9	1.2
Accident	1.8	1.0	8.6	1.4	0.6	2.6
Traffic	10.1	1.3	15.4	9.5	26.5	38.1
Accident	2.5	1.0	5.7	3.2	1.2	3.2
War/Related						
Other Causes						
Total (Number)	**100 (140,693)**	**100 (121,712)**	**100 (236,034)**	**100 (210,076)**	**100 (137,043)**	**100 (131,302)**

Source: MOLISA

MOLISA collects statistics on injuries and deaths from unexploded ordinance. Some of these data were reported recently in the People's Army Newspaper (cited in the Associated Press on September 4, 1999). The report states that between the end of the Vietnam war in April 1975 and April 1998, a total of 38,248 people were killed and another 60,064 people were injured in Vietnam by unexploded bombs, land mines, and artillery shells.

The distribution of causes of disabilities will continue to change over time. Such change is the likely result of the decline in occurrence of war-related injuries, the rise in traffic accidents and diseases such HIV/AIDS, the accelerating pace of aging in the population due to declining fertility, and advances in life expectancy at older ages.

Characteristics of PWDs

Data on the age, gender, education level, occupational status, type of disability, cause of disability, and rehabilitation status of PWDs have been collected in the 1994–1995 MOLISA Disability Survey, the 1998 MOLISA/UNICEF Child Disability Survey, the MOH'S CBR surveillance system, and in some of the NIES Disability Surveys. Information on the seven variables mentioned are also collected as part of the client records maintained at the various orthopedic rehabilitation centers throughout the country.

NGOs such as WVI, VNAH, ICRC, VVAF, and HI have provided technical support for computer data processing of these data at many of the rehabilitation centers. The database software used for data entry, processing, and analysis varies among NGOs and among centers:

VNAH has supported the Con Tho and Thu Duc Centers and uses EXCEL to store the data and ACCESS to analyze the data;

VVAF supports NIP and Bach Mai Hospital Rehabilitation Department and uses ACCESS;

ICRC supports the HCM City Orthopedic Rehabilitation Center and uses ACCESS software for their database;

World Vision International supports the Quy Nhon, Da Nang, Thanh Hoa, and Vinh Centers and uses FOXPRO; and

The Quy Nhon Center computer person uses EXCEL programs for internal use of the data.

Some rehabilitation centers (Ba Vi Center) apparently do not aggregate and analyze the data from their centers. Although they collect information on each client, they use the information at the individual client level but not in the aggregate for to plan and improve programs. Centers such as Ba Vi and Kien An Hai Phong do not have NGO support for disability data collection, management, and analysis, but they would benefit from such support.

Age and Disability

Two major sources for national estimates of disability indicate that children (ages 0–15) comprise 15–30 percent (MOLISA's 1994–1995 survey includes only moderate to severe disabilities) (MOH CBR data, 1977) of all persons with disability. Although children ages 0–15 comprise about 36 percent of the total population, they have a lower prevalence of most disabilities compared to adults who have a longer period of exposure to risks of disabilities. The 1994–1995 MOLISA Disability Survey also shows that persons over 60 years old comprise almost 18 percent of persons with moderate to severe disabilities, although this age group comprises less than 6 percent of the Vietnamese population. As the population of ages due to declining fertility in Vietnam, the proportions of younger persons will further decrease

and the proportions of the population that are elderly will increase. With the inevitable aging of the Vietnamese population, the overall prevalence of disability is likely to steadily increase, although the distribution of the types and causes of disability will also change.

Table 4 shows the percent distribution of types of disability by broad age groups (0–15, 16–60, and over 60) using data from the 1994–1995 MOLISA Disability Survey. For all three age groups, mobility disability is the largest category with about one-third of all disabilities in each age being due to motor disability. Sight/Vision disabilities become more significant with increasing age. Only 9 percent of child disabilities were sight/vision disabilities, compared to 13 percent among persons ages 16–60 years old, and 33 percent of PWDs over age 60 having sight vision disabilities. When comparing the disability distribution by type of disability for specific age groups to the disability distribution for the total population, children represent a much higher proportion of disabled persons having a speech disability (10 percent) compared to all disabled in the general population (8 percent). Similarly, we found the elderly (over age 60) represent a much higher proportion of disabled persons having sight/vision disability (33 percent), compared to all disabled in the general population (16 percent) (See Table 4, adapted from Table 2.3 of the 1994–1995 MOLISA Disability Survey tabulations).

Table 4. Types of Moderate to Severe Disabilities, by Age of PWD: 1994–1995 (MOLISA Disability Survey)

Numbers and Percent Distribution of Disabilities By Age									Percent Ages 0-15 (For Each Disability)
Type of Disability	Total		Age						
			0-15		16-16		Over 60		
	Number	(%)	Number	(%)	Number	(%)	Number	(%)	
Mobility	**525,331**	**(35.5)**	**80,529**	**(34.3)**	**361,277**	**(36.4)**	**83,525**	**(32.9)**	**15.3**
Amputees (total)	106,670	(7.2)	3,663	(1.6)	87,21	(8.8)	15,795	(6.2)	3.4
Upper Limb	41,486	(2.8)	2,331	(1.0)	32,768	(3.3)	6,387	(2.5)	5.6
Lower Limb	66,184	(4.4)	1,332	(0.6)	54,444	(5.5)	9,405	(3.7)	2.0
Limb Deformity	183,773	(12.4)	26,667	(11.3)	131,233	(13.2)	25,873	(10.2)	14.5
Paralysis Cases	151,766	(10.2)	34,902	(14.9)	88,070	(8.9)	28,794	(11.4)	23.0
Hearing	**136,381**	**(9.2)**	**23,873**	**(10.2)**	**77,868**	**(7.8)**	**34,640**	**(13.7)**	**17.5**
Speech	**117,389**	**(7.9)**	**37,362**	**(15.9)**	**72,942**	**(7.3)**	**7,085**	**(2.8)**	**31.8**
Sight	**232,624**	**(15.7)**	**21,131**	**(9.0)**	**126,942**	**(13.0)**	**82,551**	**(32.6)**	**9.1**
Learning	**206,351**	**(13.9)**	**29,856**	**(12.7)**	**159,303**	**(16.0)**	**17,192**	**(6.8)**	**14.5**
Strange Behavior	**135,003**	**(9.1)**	**25,080**	**(10.7)**	**98,732**	**(9.9)**	**11,191**	**(4.4)**	**18.6**
Other	**128,205**	**(8.6)**	**16,998**	**(7.2)**	**93,836**	**(9.4)**	**17,371**	**(6.8)**	**13.3**
Total*	**1,481,284**	**(100)**	**234,829**	**(100)**	**992,900**	**(100)**	**253,555**	**(100)**	**15.9**

Source: MOLISA

* Total numbers add up to more than the total numbers of persons estimated with moderate to severe disabilities in the 1994-1995 MOLISA Disability Survey (1,297,695) because some persons had multiple disabilities. Number of cases for which information on type of disability is reported is more than the number of cases for which cause of disability is reported.

Table 5 shows the percent distribution of causes of disability by broad age groups (children age 0–15, working age adults 16–60, and elderly adults over 60) using data from the 1994–1995 MOLISA Disability Survey. (See Table 2.5 in the MOLISA Survey). The distribution of the causes of disabilities for the three age groups are quite different.

Table 5. Causes of Moderate to Severe Disabilities, by Age of PWD: 1994–1995 (MOLISA Disability Survey)

Numbers and Percent Distribution of Causes By Age									Percent Ages 0-15 (for each cause)
	Total		Age						
			0-15		16-60		Over 60		
Cause of Disability	Number	(%)	Number	(%)	Number	(%)	Number	(%)	
Congenital	448,319	(34.2)	123,981	(61.3)	291,000	(33.1)	33,338	(14.4)	27.6
Disease	468,971	(35.7)	64,527	(31.9)	278,433	(31.7)	126,011	(54.5)	13.8
Accident Work	26,010	(2.0)	1,714	(0.8)	19,464	(2.2)	4,832	(2.1)	6.6
Accident Traffic	72,472	(5.5)	3,710	(1.8)	56,311	(6.4)	12,451	(5.4)	5.1
War	250,265	(19.1)	945	(0.5)	205,719	(23.4)	43,601	(18.9)	0.5
Other	46,653	(3.4)	7,452	(3.7)	28,292	(3.2)	10,909	(4.7)	16.0
Total	**1,312,690**	**(100)**	**202,329**	**(100)**	**879,219**	**(100)**	**231,142**	**(100)**	**15.4**

Source: MOLISA

* Total numbers add up to more than the total numbers of persons estimated with moderate to severe disabilities in the 1994-1995 MOLISA Disability Survey (1,297,695) because some persons had multiple disabilities. Number of cases for which information on type of disability is reported is more than the number of cases for which cause of disability is reported.

Among CWDs ages 0–15, almost two-thirds (61 percent) suffer from disabilities caused by congenital defects, and almost one-third (32 percent) became disabled from diseases. Not surprisingly, less than 1 percent of CWDs had disabilities due to war, and less than 3 percent had disabilities due to traffic or work accidents.

Among adults ages 16–60 with disabilities, almost one-fourth (23 percent) had disabilities caused by war, and 9 percent of them had disabilities caused by work or traffic accidents. One-third of disabled adults in the 16–60 age group had disabilities caused by congenital factors, and almost one-third (32 percent) of their disabilities were caused by diseases.

On the other hand, among elderly persons over 60 years old, congenital defects accounted for less than 15 percent of their disabilities, while diseases caused more than half (55 percent) of their disabilities. War-related injuries caused almost one-fifth (19 percent) of all disabilities to elderly persons.

Programs must take into account the different types of disabilities and different causes of disability affecting different demographic segments of the population, so that effective, appropriate interventions can be carried out to prevent, treat, and rehabilitate persons with disabilities in these age groups.

Gender and Disability

There appear to be substantial differences in the reported prevalence of disability among males and females in the population at various ages. These differences are due to differences in risks and incidence of certain disabilities in males and females, but may also be due to reporting biases that may lead to under-reporting for one gender or the other. The following data report disabilities by gender: 1994–1995 MOLISA Survey, 1998 MOLISA Child Disability Survey; CBR data for some areas, some NIES surveys, leprosy database, and Orthopedic Rehabilitation Center statistics on clients.

A UNICEF report suggests there may be poor detection of disability in girls (Bond and Hayter, 1998). The percentage of girls out of the total disabled are usually well below 50 percent, although females comprise slightly more than half the population. CBR data for 29 provinces indicates that 44 percent of all disabled persons are female (MOH, 1997). CBR data cited in the UNICEF report indicated that in 1993 a total of 40 percent of all PWDs in 10 provinces were female. For Tien Giang, Vinh Phu, and Da Nang provinces the percentages of disabled who were female were 37 percent, 44 percent, and 39 percent, respectively (circa 1993) (Bond and Hayter, 1998). An analysis of CBR data on 3,197 motor-disabled children ages 15 years and under in seven northern Vietnamese provinces found that 44.6 percent of these children were female.

Data from the 1998 MOLISA/UNICEF Child Disability Survey indicates that among children ages 0-17 years, 42.9 percent (492/1,148) were female, with the percentage of females among severe disabilities being 43.6 percent, and the percentage of females among partial disabilities being 42.0 percent. In this survey, the proportion of females among persons with specific disabilities ranged from 37.6 percent for the hearing impaired to 44.4 percent for the sight impaired.

NIES disability survey data for Luong Son district of Hoa Binh province, Yen Hung District of Quang Ninh Province, and Yen Khanh District of Ninh Binh Province show the percentages of CWDs ages 0–15 who are female are 42.4 percent, 44.9 percent, and 41.4 percent, respectively.

In a small survey conducted in Lac Son District of Hoa Binh Province, more female than male disabled children ages 15 and under were identified, but substantially more male than female disabled persons over 15 years old were found. On the other hand, another special disability assessment conducted in Ha Tay Province in 1997–1998 found 16 percent more female than male disabled persons over age 15, but found an almost equal number of male and female disabled ages 15 years and under.

Table 6 shows the type of disability and cause of disability by gender from the 1994–1995 MOLISA Disability Survey. In this survey, only 36 percent of all persons identified with moderate to severe disabilities were female, ranging from a low of 29 percent female for “other disabilities” and 31 percent female for mobility disabilities, to a high of 42 percent female for sight disabilities and 42 percent female for speech disabilities. The “other disabilities” category in this survey includes such disabilities as cleft palate, harelip, other chromosomal disorders, leprosy, and HIV/AIDs.

Table 6. Gender Composition of Persons with Moderate and Severe Disabilities, by Type and Cause of Disability: 1994–1995 (MOLISA Disability Survey)

Numbers and Distribution of Disabilities and Causes by Gender							
		Male		Female			
Type of Disability	Total Number	Number	(%)	Number	(%)	Percent Female	Ratio Male/Female
Mobility	525,331	364,541	(38.5)	160,790	(30.2)	30.6	2.26
Hearing	136,381	82,822	(8.7)	53,559	(10.0)	39.3	1.55
Speech	117,389	68,527	(7.2)	48,862	(9.2)	41.6	1.40
Sight	232,624	134,047	(14.1)	98,577	(18.5)	42.4	1.36
Learning	206,351	121,028	(12.8)	85,323	(16.0)	41.3	1.42
Strange Behavior	135,003	85,719	(9.0)	49,284	(9.2)	36.5	1.74
Other	128,205	91,393	(9.6)	36,812	(6.9)	28.7	2.48
Total*	**1,481,284**	**948,077**	**(100)**	**533,207**	**(100)**	**36.0**	**1.78**
Cause of Disability							**Ratio Male/Female**
Congenital	448,319	253,652	(30.4)	194,667	(40.6)	43.4	1.30
Disease	468,971	247,952	(29.8)	221,019	(46.1)	47.1	1.12
Accident Work	26,010	19,662	(2.4)	6,348	(1.3)	24.4	3.10
Accident Traffic	72,472	56,273	(6.8)	16,199	(3.4)	22.4	3.47
War	250,265	225,605	(27.1)	24,660	(5.1)	9.9	9.15
Other	46,653	30,182	(3.6)	16,471	(3.4)	35.3	1.83
Total*	**1,312,690**	**833,326**	**(100)**	**479,364**	**(100)**	**36.5**	**1.74**

Source: MOLISA

* Total numbers add up to more than the total numbers of persons estimated with moderate to severe disabilities in the 1994-1995 MOLISA Disability Survey (1,297,695) because some persons had multiple disabilities. Number of cases for which information on type of disability is reported is more than the number of cases for which cause of disability is reported.

Gender differentials in causes of disabilities are also shown in Table 6. Females account for close to half of congenital causes (43 percent) and disease cause (47 percent) of all disabilities combined. However, females account for less than one-fourth of the work accident (24 percent) and traffic accident (22 percent) causes of disability, and less than 10 percent of the war-related causes of disability. In looking at the percent distribution of causes of disabilities for females and the causes of disabilities for males, different patterns emerge. Among females with disabilities, a

total of 87 percent are caused by the combination of congenital factors (41 percent) and disease (46 percent). For males with disabilities, congenital factors and disease cause about 60 percent of their disabilities (30 percent congenital causes and 30 percent disease causes). The survey identifies three times as many males as females who were disabled by work accidents (19,662 males compared 6,348 females) and by traffic accidents (56,273 males compared to 16,199 females). By far the biggest difference in the distribution of disabilities by cause for males and females is war and war-related causes, more than one-fourth (27 percent) of males with disabilities were disabled because of war, compared to only 5 percent of disabled females being disabled by war. In terms of absolute numbers, the differences are vast. Almost one-quarter million males (225,605) are disabled by war compared to 24,660 females who are disabled by war. Thus, 90 percent of persons with severe disabilities caused by war are men. (Table 6 was adapted from two tables [Tables 2.1 and 2.4] from the 1994–1995 MOLISA Disability Survey tabulations.)

However, a big question that remains is to what extent are females missed in assessments of disability by MOLISA, the MOH, and other organizations working with the disabled. Other questions that deserve examination are as follows: why are females with disabilities under-reported if they are in fact under-reported? If so, how can we improve the completeness of reporting on disabilities for both females and males?

Employment Status of PWDs

Over the past decade increasing attention has been given to occupationally and vocationally rehabilitating persons with disabilities to help further integrate them into social and economic life in the community. The government and NGOs have numerous vocational training projects and programs for PWDs of working age, and data are collected by these organizations.

Information is collected and sometimes reported on the employment status of PWDs, occupation, numbers of PWDs participating in VT and the number of VT centers operating nationwide. Organizations such as MOLISA and World Concern have collected data for VT, through surveys and training needs assessments. Data on employment and VT of PWDs is often not disseminated in detail, but used more for program monitoring purposes.

A problem identified throughout this disability data review is the lack of in-depth analysis of the large amount of disability data collected by various organizations; the high protectiveness of the data by the collecting organizations; the lack of comparability of the data due to different definitions; target groups or audience segments; and the limited dissemination and use of the data to plan, make decisions, formulate policy, and improve program performance.

Much more information could and should be collected and disseminated on this topic through surveys, training needs assessments/situation analyses, and follow-up visits to PWDs receiving vocational training. Numerous questions and variables could be included in such data collection efforts, but this goes beyond the scope of this disability data review. Monitoring indicators need to be developed and used, such as percent of PWDs receiving vocational training, percent of those receiving VT who are working one year after the training, and percent of PWDs satisfied with VT and with the employment they received.

World Concern has developed a good VT model for possible broader replication and has used the data it has collected and indicators it has developed to design, implement, and monitor its program. The same can be said for VVAF, WVI, VNAH, and ICRC in the realm of data collection and monitoring of prosthetic and orthotics production and distribution at collaborating rehabilitation centers.

The vocational training for PWDs in Vietnam consists primarily of (1) two main vocational training centers run by MOLISA, one in Son Tay Province and the other at Thu Duc in HCM City, and each with a capacity of 300 enrollments per year; (2) the more than 72 special schools for PWDs, most of which have a pre-vocational training section; and (3) NGO vocational training projects for CWDs/PWDs in collaboration with MOET and MOLISA (Thang, 1997)

Because many PWDs are illiterate and do not have professional skills, PWDs tend to work in manual jobs (31 percent) or short-term positions (37 percent) (Thang, 1997).

Educational Status of PWDs

The MOET/NIES Center for Special Education, the Hanoi National University (HNU) Training and Development Center for Special Education, and NGOs such as Radda Barnen, Komitee Twee (K2), Medical Committee Netherlands Vietnam (MCNV), Pearl S. Buck Foundation, and Save the Children/UK and have been working to develop special education and inclusive education programs for children with disabilities (and for some adults as well). NIES and some NGOs have collected baseline survey data and program data to design, monitor, and evaluate the SE and IE interventions, although only limited hard data of program impact has been reported.

The number of CWDs participating in these programs is still small compared to those CWDs in need of such education. The MOH's CBR program is working with the MOET to support the IE programs, and pilot IE programs have been initiated in at least 44 districts in some 36 provinces as of 1998, with 32,000 pupils, 11,000 classes with IE, and 10,000 teachers participating (MOH, 1997). In 1998, the NIES was reported to be working with IE classes for 21,000 CWDs in 869 schools in 44 districts of 14 provinces (Bond and Hayter, 1998).

Educational status and literacy rates among PWDs are lower than in the general population. The 1994–1995 MOLISA Disability Survey showed that 36 percent of PWDs are illiterate, more than 97 percent of PWDs do not have professional skills, and a very small proportion of PWDs have completed a secondary education (MOLISA, 1998, Thang, 1997).

Estimates of the number of SE schools and IE schools now operating and the number of PWDs enrolled vary among sources. The TDCSE reports in 1996 a total of 104 schools for CWDs—54 schools for deaf, 14 schools for blind, and 36 schools for the mentally retarded (Hanoi Pedagogic University (HPU), 1998). NIES reports cite 72 schools for PWDs. A 1998 UNICEF report by Bond and Hayter also states that as of May 1997 a total of 72 special schools and centers were catering to almost 4,000 CWDs, with more than half of these children being deaf children. The 1998 Bond and Hayter UNICEF report cites a total of 43 schools for hearing and speech impairments, 13 schools for visual impairments, and 17 schools for learning impairments, with two-thirds of the special schools being located in HCM City and Hanoi (and about one-quarter of special schools being located in HCM City alone. These schools serve the educational needs of about 4,000 CWDs. The 43 schools for hearing and speech disabilities include 272 classes, 401

teachers, and about 2,900 children with hearing/speech disabilities. The 13 schools for children with visual disabilities include 51 classes, 101 teachers, and more than 400 students, with nine of the schools run by the Department of Education and Training (DOET), two by DOLISA, and two by the Blind People's Association (Thang, 1997). The 17 schools for learning disabilities include 43 classes, 52 teachers, and more than 450 students (Thang, 1997).

CWDs access to special schools has been limited. It has been estimated that in 1991 only 1 percent of CWDs had access to special schools, and in 1995 this figure had increased to 3 percent (Thang, 1997). Inclusive education of CWDs in mainstream schools has increasingly become the preferable alternative to meeting the educational needs of the vast majority of CWDs, both in terms of cost considerations and achieving social integration of CWDs into the community. As of 1996, it was reported that 26,000 CWDs were attending regular classes in 1,000 pilot schools at 50 selected districts in 45 provinces (Thang, 1997, citing a 1996 CRS source).

It was estimated by Komitee Twee and the HPU TDCSE that the educational needs of only about 10 percent of the children with hearing disabilities were being met (K2 and HPU-TDCSE, 1998).

Some cities such as HCM City have produced directories of community and rehabilitative support services, vocational training, and schools for PWDs.

Regardless of the source of information and the exact number of CWDs benefiting from SE and IE programs, clearly the numbers of CWDs benefiting from such programs fall well short of the total number of CWDs in need of such educational programs. The relative role of IE programs versus SE programs to meet the educational needs of CWDs will need to be considered in discussions and implementation of action plans based on the 1998 Ordinance on Disabled Persons.

Surveys and IE and SE program services statistics should collect relevant information to construct quantifiable indicators to effectively monitor IE and SE projects and evaluate their short-term and longer-term impact on the integration of CWDs in the community (percent of CWDs in school, percent of CWDs, and PWDs who are literate, percent of CWD who are satisfied with their school program (IE or SE), number of CWD with special talents).

Educational statistics cited concerning CWDs and PWDs include: This disability data review has not reported on the number of teachers, CBR workers, prosthetists, physical therapists, orthopedic surgeons, or P&O workshop technicians trained, although data is available on training statistics from the MOH, MOET, MOLISA, and NGOs involved in training persons in providing services for PWDs. Some of these data are available in the reports cited in the References section of this report. During the Disability Data Review, field visit information was collected from 10 centers on the number of staff working at the center by type of staff (e.g., doctors, physical therapists, workshop technicians, and nurses).

Disability Data on Other Characteristics of PWDs and Awareness, Knowledge, Attitudes, Beliefs, and Practices of PWDs, Families of PWDs, Community, and Service Providers

Data collected during this review are available for a number of other variables and issues relating to PWDs (see References). MIS forms, client records forms, and survey questionnaires have also

been obtained in this review, which indicate the range of information and variables that are collected.

More information is needed in the areas of poverty status; marital and family living arrangements and support, community support for PWDs, percent in need of rehabilitation; percent receiving rehabilitation; indicators for measuring percent integrated into the community (friends, participation in recreational, and social, and economic activities, aspirations and needs for the future, community attitudes, beliefs, awareness, and behavior concerning PWDs, IE, causes of disability, treatment of disability, etc.)

Prosthetic and Orthotic Production, Service Statistics, and Service Resources for PWDS

Prosthetic and Orthotic Production and Distribution and Client Service Statistics from Rehabilitation Institutes, Centers, and Departments

In addition to the more than 17 rehabilitation centers run by MOLISA, DOLISA, and the MOH, and the 54 provincial hospitals with rehabilitation-physiotherapy departments, according to an MOH report in 1997 Vietnam had approximately 80 sanatoriums centers throughout the country, belonging to different sectors, ministries, provinces and cities (MOH, 1997). Since 1994, the sanatoriums have been transforming in structure to provide rehabilitation-oriented care. At the same time, the MOH CBR and the MOET and NGOs inclusive education and CIC initiatives have also been transforming the way in which persons with disabilities are treated and integrated into the community. The MOH reports more than 360 doctors working in the rehabilitation field in various institutes, central hospitals, provincial and sectoral hospitals, and sanatoriums. There are now more than 70 first-level specialists, 5 second-level specialists, 7 doctors, 2 professors, and more than 100 physiotherapists (in the MOH alone) (MOH, 1997). All three Central Medical Technical Secondary Schools (CMTSS) have rehabilitation departments and together are training 50–80 new physical therapists (PT) each year, as well as retraining and upgrading existing PTs. Some 14 rehabilitation training spots are being established throughout the country for rehabilitation cadre training (MOH, 1997).

The MOH has set ambitious rehabilitation training targets, as well as its goal to expand its CBR program to more provinces over the next five years. Inclusive education and vocational training targets for PWDs are also large, as are the proposed number of PWDs to be rehabilitated and integrated into the community (See MOH 1997 report for targeted numbers in each category).

Throughout the country, at least 20 government rehabilitation centers have prosthetic and orthotic workshops. MOLISA supports 14 of these centers, while DOLISA supports 3, and the MOH supports 3 (NIP in Hanoi, Hue Hospital Rehabilitation Center, and a new center under construction at Bach Mai Hospital). Also, 21 leprosy treatment centers have physiotherapy and other rehabilitation services, and a few have small workshops that make some prosthetic and orthotic devices (e.g., Quy Hoa Leprosy Center in Binh Dinh province). There are also at least two private organizations that make prosthetic and orthotic devices: Le-Duc-Loi Clinic/Workshop in Hanoi and Kien Tuong Company in HCM City. In addition, as of 1998 the MOH has established physiotherapy-rehabilitation departments in provincial general hospitals in 54 provinces, as well as in central hospitals and institutes and in an additional 34 hospitals within the Military Medical Service system. The names of the orthopedic and rehabilitation centers and/or prosthetics and orthotics workshops operating in Vietnam are as follows:

- Viet-Duc Orthopedic and Rehabilitation Center Ba Vi, Ha Tay Province (MOLISA) (also has orthopedic workshop in Hanoi).

- Ba Vi Technical Orthopedic Center (MOLISA).

- Kien An Orthopedic and Rehabilitation Center in Haiphong City (MOLISA).

- Tam Diep Orthopedic and Rehabilitation Center in Ninh Binh Province (MOLISA). The Orthopedic Workshop is assisted by Medical Scientific Aid Vietnam, Cambodia, Laos (MSAVCL) (makes Jaipur foot).

- Ha Tinh Workshop (Ky Anh District) (belongs to Tam Diep), assisted by MSAVLC.

- Thanh Hoa Orthopedic and Rehabilitation Center in Thanh Hoa Province (DOLISA), assisted by WVI.

- Vinh Orthopedic and Rehabilitation Center in Nghe An Province (DOLISA), assisted by WVI.
- Da Nang City Rehabilitation and Orthpedic Center (MOLISA), assisted by WVI.

- Quy Nhon Orthopedic Rehabilitation Center in Binh Dinh Center (MOLISA), assisted by WVI.

- Can Tho Orthopedic Rehabilitation Center (MOLISA); assisted by VNAH.

- Ho Chi Minh City Orthopedic and Rehabilitation Center (MOLISA), assisted by ICRC and VNAH.

- Thu Duc Orthopedic Workshop in Ho Chi Minh City (MOLISA) (managed under HCMC Center as of 1999), assisted by VNAH.

- Disabled Children Center in Ho Chi Minh City (MOLISA) (formerly known as children's polio center), assisted by Terres des Hommes and HI.

- Prosthetics and Orthotics Center (POC) CAD-CAM research and development centre in Hanoi (MOLISA), assisted by POF, belongs to IROS.

- VIETCOT School of Prosthetics and Orthotics in Hanoi (MOLISA), assisted by Geselleschaft Technische Zusammenarbeit (GTZ).

- 19/12 Hanoi Rehabilitation and Orthopedic Company (DOLISA).

- NIP in Hanoi (MOH), assisted by VVAF and K2.

- Bach Mai Hospital Rehabilitation Department is being upgraded to become a rehabilitation center and workshop in Hanoi (MOH), assisted by VVAF.

- Hue Hospital Rehabilitation Center in Hue (MOH), assisted by HI (HI also assists small centers in Kanh Hoa, Binh Dinh, and Lam Dong).

- Quang Ninh small workshop (DOLISA).

- Thai Binh small workshop (DOLISA).

- Prosthetics workshop at Quang Tri provincial hospital in Dong Ha District (MOH), assisted by HI.

- Some small private workshops in Hanoi (Le-Duc-Loi Clinic and Le Doan Thang Clinic) and in HCM City (Ba Thu private workshop).

- Rehabilitation departments have been established in 54 provincial hospitals (MOH) and will be expanded further.

- Some small orthopedic workshops in the army hospitals making orthoses.

- Mobile service is being established in some northern provinces around Hanoi (MOH/VVAF).

- Some small companies make wheelchairs, crutches, and feet (Kien Truong Company in HCM City, VINAREHA in Hanoi, and Dong Anh in Long Bien since 1975).

Production and Supply of Prosthetics and Orthotics

With the exception of possibly the private P&O workshops, the rehabilitation centers, institutes and workshops previously mentioned regularly collect data and report on P&O production and client characteristics. Table 7 shows the number of prosthetics and orthotics produced at orthopedic workshops in 1998. For amputees, the various workshops produced an estimated 3,492 AK prosthetic devices, 8,466 BK prosthetic devices, and 1,164 AE and BE limb prosthetics were produced in 1998.

Table 7. Prosthetics and Orthotics Produced at Orthopedic Workshops: 1998

Name of Rehab Center/ Workshop	Type of Prosthesis and Orthoses Produced and Supplied:1998								
	Above Knee	**Below Knee**	**Total Arms**	**Total* Braces**	**Corsets**	**Ortho Shoes**	**Wheelchairs**	**Total Repair**	**Total Devices**
Viet Duc Ba Vi + HanoiCenter	822	1,689	358	45	50	1,267	0	386	4,231
Ba Vi Tech. Ortho Center							400		400
Kien An Hai Phong	109	197	33	9	0	193	0		541
POC	18	324	0	0	0	0	0		342
19/12 Hanoi	287	482	120	28	3	1,585	0	126	2,505
Tam Diep Ctr	48	95	62	3	54	15	0		277
Ha Tinh WS**		40							40
Thanh HoaCtr	194	471	51	29	0	255	0		1,000
Thuy An Children Ctr				200***					200***
Vinh Ctr	398	578	146	43	0	198	0		1,363
Da Nang Ctr	317	820	81	313	9	366	0		1,906
Qui Nhon Ctr	216	451	86	153	7	164	0	15	1,077
HCMC Ctr + Thu Duc Ctr	661	1,910	244	230	0	414	0 100	404	3,459 100
HCMCDisabled Children Center				568		279			847
Can Tho Ctr	364	1,205	22	251	8	243	0	1,366	2,093
Quang Tri WS	15	35							50
Thai Binh WS	15	35							50
Quang Ninh WS	15	35							50
Hue Hospital MOH Ctr	100	200		200	See braces	50			550
NIP Hanoi	0	0	0	938	43	34	0		1,015
Thang Hanoi	←	----64--- -	→						318
Ba Tru HCMC	←	----50--	→	254					50
Le-Duc-Loi WS Hanoi	5	15		200	See Braces				220
Kien Tuong Co HCMC							200		200
TOTAL	**3,584**	**8,696**	**1,203**	**3,464**	**174**	**5,063**	**700**	**2,297**	**22,884**

* Including all leg, arm, back, neck braces, orthoses, etc.

** Belongs to Tam Diep Center; they make Jaipur BK limbs only

*** Data are for 1997: Thuy An Center imports 200 devices in 1997

Source of Data: All data (except for Thuy An) are for 1998 and are reported by the Centers themselves; Some of the data are included in Table 6.2.2 of the MOLISA 1998 Statistical Yearbook.

Notes: 19/12 Center Hanoi also made 694 crutches; Viet Duc Center Hanoi made 1000 crutches; crutches and component parts are not included in totals. WS signifies Workshop for making prosthetics and/or orthotics. Thang, Ba Tru, Le-Duc-Loi, Kien Tuong Co. are private sector workshops. Bach Mai Hospital and Thai Nguyen Province Orthopedic and Rehabilitation Center for Children plan to have a workshops in the Future.

It is difficult to plan for adequate prosthetics and orthotics production and for orthopedic rehabilitation services when the range of estimates of number of amputees and other motor disabilities varies so greatly.

Demand for Prosthetics and Orthotics in Vietnam

On average, amputees require a new limb every three years. Using the MOLISA 1994–1995 Survey estimates of 107,000 amputees as the best estimate of current amputee estimates, annual production of approximately 35,700 limbs would be required to meet present demand. The data shown in Table 7 indicate that annual prosthetic limb production was 13,483 for 1998 (AK 3,584 + BK 8,696 + arms 1,203), which would meet the needs of a little more than one-third (38 percent or 13,483/35,700) of amputees in the country, based on the best estimate of amputees used for these calculations. One government source at MOLISA stated that prostheses have been provided to 70–80 percent of those who need them except in the remote ethnic minority areas (MOLISA, 1998). Data provided by MOLISA's Dr. Ha Ahn on prosthetic limb production for the period 1991–1998 indicates that 134,907 prosthetic limbs were produced in Vietnam during that eight-year time period by government, NGO, and private workshops. Thus, the average number of prosthetics produced per year is 16,863. Using this average annual estimate still results in the current production being less than half (47 percent or 16,863/35,700) of the current need for prosthetics (assuming prosthetics need to be replaced every three years). However, another government source from the National Assembly stated that only 15–20 percent of the current demand for P&Os are being met by current production (National Assembly Ministry of Justice [MOJ], 1998). The data in Table 7 indicate that demand for prostheses in Vietnam exceeds the current domestic production supply by more than two times.

The 1994–1995 MOLISA Disability Survey estimated about 525,000 severely motor disabled. Another estimate, based on reports from DOLISA in 20 provinces, indicated that 233,000 persons—about 1.1 percent of the total population of 21,039,000 million—require prosthetic and orthotic devices. If this rate were applied to the country as a whole, as many as 860,000 people could require some kind of prosthetic and/or orthotic devices as of 1998. Table 7 indicates that overall production of prosthetic and orthotic devices falls well below the need for such devices, regardless of which estimates are used for the number of motor-disabled in need of orthotic devices.

Information is unavailable on smaller private companies and carpentry shops that may manufacture more rudimentary prosthetic and orthotic devices to help meet the demand for such devices by motor-disabled persons in their communities. However, these locally manufactured low-technology products would likely be of lower quality in terms of fit, safety, and durability.
In the Communique of the Workshop on Prosthetic and Orthotic Services (April 16-18, 1999) it was pointed out that many of the rehabilitation centers previously mentioned have outreach services, satellite centers, and/or referral centers. Data on these additional services must be obtained from the individual centers.

Many of the rehabilitation centers put client information on computerized databases with the assistance of NGOs (e.g., WVI, VVAF, VNAH, and ICRC). Much of the data collected are on the same or similar variables (e.g., age, sex, education, type of disability, cause of disability, type of prosthetics and orthotics produced and distributed, etc.). However, centers and NGOs vary substantially with regard to definitions of the variables used (e.g., type of disability); the coding of response categories (e.g., age and employment status); and the completeness, specificity, and accuracy of reporting (e.g., age of client and type of disability). Furthermore, the different centers and NGOs use different database software (e.g., some use EXCEL, ACCESS, or FOXPRO), which makes sharing and comparing analyses of data more difficult. The tabulation formats and the frequency and quality of the reports generated from the various disability databases vary among centers and NGOs, again making it difficult to compare the disability data from different sources.

This same point about rehabilitation center data and NGO data hold true for the disability survey data collected by MOLISA, MOH, MOET/NIES, and NGOs, and the CBR data collected by the MOH and its collaborating NGO organizations in CBR programs.

Table 8 provides information for 1998 on the number of clients, client characteristics, orthopedic surgeries performed, and number and type of professional staff located at the 10 rehabilitation centers visited during the disability data review. Some centers perform orthopedic surgeries while others do not. Some centers deal exclusively with children. Most centers focus almost exclusively on motor disabled persons and have prosthetic and orthotic workshops staffed by technicians and physical therapy facilities staffed by physical therapists and nurses.

Table 8. Number of Clients, Client Characteristics, Orthopedic Surgeries Performed, and Professional Staff at Orthopedic Rehabilitation Centers

Name of Rehab Center/ Workshop (coverage)	Number and Type of Clients at Orthopedic Rehabilitation Centers							
	Clients in 1998	Surgeries in 1998	Amputees Treated 1998	Clients Children Under 18 (%)	Clients Female (%)	Mds/ RN	PTs	Workshop Tech. WST
Ba Vi (16 provinces)	710 in-patients	120	2,869	90%	43%	7/6	5	14
Kien An Haiphong (6 prov.)	3,264 exam 986 in-patients	140	339	25%	50% about	2/6+ 2 PA	6	10
HCMC Center (12 prov.)	4,107 examined	32 (many referred to other hospitals)	2,815	1 % amputee only	13% amputee only	8	13	20
HCMC Childrens Center (>12 prov.)	1,406 examined; 469 in-patients	206	NA	100 %	50% about	8/12	9	6
Qui Nhon (6 prov.)	3,053 total 1,220 in-patients	200 about	1,048 total 522 in-pat. 526 out-pat	50% about	NA	4/3	10	12
Da Nang (6 prov.)	1,500	150 about	130 about	60%	NA	5/3	7	8
Hue (3 prov.)	1,350 total 440 in-pat	(surgery in hospital)	Not as many as before (300 prosthetics)	NA	50% about	6/2	8	5
NIP/Hanoi (>12 prov.)	1,500+- (1/3 Hanoi)	(surgery in hospital)	Almost none (only orthotics)	100% Ages 0-15	45%	6	6+ 1OT 2ST 1SE	4
Viet-Duc Hanoi–WS	16 patients per day	NA	NA	NA	NA	3/1	1	12
19/12 Center (6 prov.)	7 patients per day	0(surgery referred-out: no surgeons)	889 (includes outreach)	8%	10%	2/2	4	6
NA: data not available/not provided; MD-physician;RN-nurse;PT-physiotherapist;WST-workshop technician								

Centers not visited include: Can Tho (800 in-patients, 120 surgeries, 60% children, 50% female); Tam Diep (80 in-patients, 80 surgeries, 66% children, 50% female); Nghe An/Vinh (200 in-patients, 30 surgeries, 66% children, 50% female); Bac Thai Children Disabled Center in Thai Nguyen province (100% children; 50% female)

QUALITY, AVAILABILITY, AND USEFULNESS OF DISABILITY DATA

In reviewing the disability data, the quality, completeness, and usefulness of the data collected by the various organizations varied widely. Some of the data problems identified in this area included the following:

- Coverage of disability prevalence data is incomplete. There were gaps in the coverage in many provinces and in a few provinces there were redundancies, with sometimes two or more organizations reporting disability data in a particular area.

- The data contain inaccuracies, such as missing information on age, specific type of disability and other variables in the CBR data. The data probably also contain overestimations of some disabilities in some data sets, such as seeing disabilities, and underestimations of other disabilities in other data sets, such as learning disability in the MOLISA surveys.

- Data from different sources were difficult to compare for the following reasons:

  Different variables. Some organizations collect limited data and report on only a few variables or on different kinds of variables because their focuses vary—MOLISA reports on P&O devices, MOET reports on SE and IE, the MOH reports on health and disease prevention and treatment and CBR program, and NGOs focus on P&O production and distribution, CBR and CIC, IE, or VT.

  Different definitions for the same variables—learning disability and strange behavior; different response categories for the same variable—some have a multiple disability variable while others do not, and some group epilepsy and leprosy together while others group them separately or in an "other" category.

  Different computer software. Use of different computer software for data processing and analysis makes sharing of data and aggregate data analysis more difficult. Some sources use EXCEL, others use FOXPRO, ACCESS, or EPI-INFO with different data files and tabulation formats.

  The breadth of information collected is sometimes too limited to be useful, leaving many questions about the status of the PWD receiving services. For example, it is important to know much more about motor-disabled persons than just that they received a prosthetic or orthotic device or vocational training. More follow-up information should be collected on whether PWDs are still using the devices a year later, whether the PWDs subsequently entered school, or if the PWDs found relevant employment in the area in which they received vocational training or have otherwise integrated into the social, economic, and cultural life of their families and communities. More in-depth qualitative data and anthropological information is needed to understand the extent of community awareness and knowledge about disabilities, and the traditional attitudes, beliefs, and behavioral

practices concerning PWDS that may serve as obstacles to the integration of PWDs into the community in Vietnam's different ethnic and cultural contexts.

Presently, organizations seem to be cautious and protective about sharing their data, or lack the data analysis and data presentation skills to present the information in the most useful way for program planning, decision making, and improvement, or for having a policy impact. Sharing of data could be facilitated by having more frequent disability data and research dissemination seminars (NGOs, MOLISA, MOH, and MOET) and publishing data, especially on the part of MOLISA and the MOH, which have large databases that are underanalyzed and underused; establishing a central database, at least for the NGOs; and engaging in informal data exchanges through project update reports, with tables showing survey results, services statistics, etc., in newsletters.

Disability data is not commonly used for at the local and national level to plan, make decisions, or formulate policy concerning services for the disabled.

Disability Data Needs

In reviewing the available disability data, the expressed data needs of the various ministries and NGOs working in this field, and the implied data needs for adequate monitoring and evaluation of the 1999 guidelines for the implementation of the 1998 Ordinance on Disabled Persons, it seems clear that a broader spectrum of comparable or standardized data will need to be collected. The Guidelines for the Implementation of the 1998 Ordinance on Disabled Persons is effective as of July 25, 1999. A broader coverage of the estimates of PWDs in Vietnam is also needed, so that each province may know more precisely the numbers of PWDs; types and causes of disabilities; and the characteristics, needs, service satisfaction, and status of integration of PWDs in each respective province.

Data on disability are needed to make management decisions concerning the staffing needs and the optimal location of rehabilitation centers, workshops, and technicians; to fulfill the need for outreach to remote areas; to estimate the number of P&Os devices needed, and to allow donors to determine the amount of support needed. Baseline survey data is needed for measuring need and to assess project progress and impact over time.

In addition, more information on the following areas is needed:

Quality of rehabilitation services and care, including the knowledge, technical competency, and training needs of rehabilitation staff;

CBR worker's knowledge and technical competence, training needs, and reasons for high dropout rates that affect the continuity and quality of CBR disability data reporting; and

CWDs' and PWDs' family economic and social circumstances and need for support

The following activities should be considered concerning disability data collection and use:

Obtain complete and accurate estimates of the prevalence of disability for each of the 61 provinces (by general types of disability) to establish a baseline for planning and evaluating disability programs. Representatives of MOLISA, MOH, and MOET expressed support for conducting a nationwide, comprehensive assessment of disability in Vietnam. Data can be collected through a national survey or a CBR census-type count, or by establishing a national registry of disabled persons. The sample survey approach is probably the most feasible in terms of timeliness, accuracy, and cost, if done carefully and correctly.

Collect and analyze national- and local-level data for monitoring and evaluating the 1999 guidelines for implementing the plan of action for the 1998 Ordinance on Disabled Persons. For example, data are needed to monitor and evaluate efforts to follow up clients, on participation of PWDs in the inclusive education and special education programs, and on the expansions of these programs. Data are also needed for the following purposes:

Evaluate vocational training programs; employment activities; and patterns and trends for PWDs in government, private businesses, and NGOs;

Monitor the poverty status of PWDs and their families;

Monitoring the integration of PWDs in social, cultural, economic, and recreational activities in the community; and

Monitoring progress in achieving barrier-free access to services and buildings, and in the development of self-help organizations of PWDs, etc.

These data should be systematically reported to the appropriate agencies. The data will enable better monitoring of progress in achieving the 1998 Ordinance of Disabled Persons objectives of integrating PWDs into mainstream society and will ensure that the legal rights of PWDs are respected and the special protection to PWDs are provided by the ordinance (i.e., “To protect, care for and create conditions for the disabled to integrate with the community”).

Collect information to assess the cost-effectiveness of different (1) prosthetics and orthotics for the disabled, (2) educational and vocational training strategies for PWDs, and (3) training strategies for professional health staff and workshop technicians working with PWDs;

Collect and analyze information to monitor and ensure that proper referrals and linkages are made for PWDs and that proper long-term follow-up of PWDs receiving rehabilitative services is conducted.

Ensure greater sharing and dissemination of the data collected, and greater standardization of the definitions of the variables used, data collected, and report table formats and software used in processing and analyzing the data on the computer (to the extent that it is possible and feasible). Better coordination among ministries and among NGOs will help ensure less overlap or duplication in data collection efforts.

Make greater use of the data for planning and decision making to improve program performance and to inform policymakers for actions to scale-up successful cost-effective disability programs.

Collect more data on client satisfaction (PWDs) with various rehabilitative services (physical/medical, educational, and vocational) and on client needs for services.

Conduct a situation analysis of the quality of care and rehabilitation services and needs of MOLISA, DOLISA, and MOH rehabilitation centers, departments, and P&O workshops.

Conduct an assessment of the situation and circumstances of the lives of PWDs and their families in communities using qualitative data collection techniques such as focus group

discussions, in-depth interviews, and observations (interviewing and observing PWDs, family members of PWDs, school teachers, and community leaders in the assessment).

Provide support to MOLISA's Center for Information and Statistics and the MOH CBR program for additional training and technical assistance in disability data collection, data processing, and analysis and in the dissemination and use of disability data to improve program performance.

Conduct evaluation/assessments of the longer-term impact of physical rehabilitation, inclusive and special education projects, vocational training programs for PWDs, and other interventions on life circumstances of PWDs (i.e., did the interventions actually help improve the lives of PWDs and their families socially and economically?).

Conclusions and Recommendations

Summary and Conclusions

This report examines the data on prevalence, types, and causes of disability in Vietnam and the characteristics of PWDs. It includes an assessment of current data availability, data quality, and data needs for government and NGO disability programs, prostheses and orthoses production, and rehabilitation programs (physical rehabilitation, inclusive and special education programs, and vocational training) in relation to the 1998 National Ordnance on Disabled Persons in Vietnam. Surveys, MIS service statistics, and special disability studies from the MOH, MOLISA, MOET, and NGOs working in the field of disability and rehabilitation in Vietnam are reviewed and analyzed. Plans for disability data collection by these organizations are also assessed (e.g., World Bank-funded national health survey with MOH; MOLISA/UNICEF child disability survey with MOLISA; service statistics and project monitoring data from WVI, VVAF, VNAH, ICRC, CRS, Pearl S Buck Foundation, NLR, AIFO and Radda Barnen, World Concern adolescents with disability VT project, Save the Children U.K.'s CIC project), Health Volunteers Overseas, and others).

A range of disability data are collected by the various ministries and NGOs. The data is collected for specific purposes and only in selected areas. Thus, much of the disability data available to date are incomplete, often inaccurate, and tend to be underused to formulate policy, plan programs, and improve program performance. There remains a lack of coordination and cooperation among the different organizations concerning disability data collection and disability definitions, and disseminating disability data, especially between the ministries. This lack of coordination leads to redundancies, inconsistencies, and gaps in the collection of information necessary to monitor and evaluate the success and impact of disability interventions and programs.

Some of the main findings of the review are as follows:

1. The range of estimates cited for the overall prevalence of disabilities in Vietnam is still quite broad (2–10 percent, but is likely to be 5–7 percent); the prevalence estimates for each type of disability also vary widely from one source to another; motor disabilities may comprise more than one-third of all persons with disabilities, and between one-fifth to one-third of all disabilities in children.

2. Many provinces and districts have not been adequately covered in recent disability surveys or CBR surveillance activities of disabilities, and therefore large gaps are found in the reporting of disability data.

3. There are some significant differentials in the types of disabilities and causes of disabilities, according to the different age groups and gender of PWDs.

4. Demand (need) for prosthetics by amputees is more than two times higher than the estimated level of prosthetics production in the country. The gap between the demand for and supply of quality orthoses among non-amputee motor-disabled persons is even larger.

5. Most ministries and NGOs have specific target groups (e.g., amputees, children with disabilities, blind/vision impaired, etc.) and/or focus on only one aspect of rehabilitation and integration of PWDs (e.g., P&O fittings, physical rehabilitation, inclusive education, or vocational training). Consequently, such organizations tend to collect only disability data relevant to the specific target group or specific intervention rather than taking a more holistic approach to PWDs. Rehabilitation centers, prosthetic and orthotic workshops and community-based rehabilitation programs need to coordinate their efforts much more closely at all levels in terms of providing service, making referrals for and follow-up on rehabilitation services, and in collecting, reporting, and sharing disability data collected for program planning and for monitoring and evaluating disability services (see International Society for Prosthetics and Orthotics (ISPO), 1999).

6. The quality of data reported varies widely. A fair amount of data are missing. Specific kinds of disability data are over-reported or under-reported due to problems in the definitions of disabilities used or in the training of the data collection personnel for surveys, CBR reporting, or at the rehabilitation centers.

7. Although a wide range of potentially useful data on disability in Vietnam exists, the data that are collected are often not analyzed, disseminated, or used to formulate policy or to plan or improve programs. Organizations rarely share disability data, and their use of different computer software; definitions of disability; and variables, indicators, response categories, and tabulation and analysis plans makes comparing data from different sources difficult.

8. The roles and responsibilities of the MOH, MOLISA, and the various NGOs in providing prosthetics and orthotics and rehabilitation services at the provincial level will likely be changing in the near future, particularly in response to the July 12, 1999 Decree of the Prime Minister. The decree calls for the transfer of responsibility for rehabilitation services and prosthetics and orthotics workshops from MOLISA to the MOH at the provincial level and below, with MOLISA having responsibility primarily for disability policy issues at the national level and for the care of war invalids and others eligible for social welfare. Closer cooperation between MOLISA and the MOH is needed during this period in terms of coordinating disability services and data collection, reporting on prosthetics and orthotics, and conducting rehabilitation activities at the provincial level.

Main Recommendations

Based on the findings and conclusions of this disability data review several recommendations are made for future activities. These recommendations include providing support and technical assistance for the collection of program-relevant disability data for Vietnam, and for processing, sharing dissemination, and using that data to (1) monitor program performance;

(2) inform policymakers; and (3) measure the impact of program interventions on the health, well-being, and integration of PWDs in the community. For each of the recommendations a priority score, a level of effort score, and a cost assessment of high, medium, or low is provided.

1. **An appropriate agency or agencies should conduct a representative national baseline survey on disability prevalence, causes, and types, including information on background characteristics, services received, and needs of PWDs. All provinces should be included and the sample should be large enough to have statistically valid estimates of the major types of disabilities at the provincial or regional level, as well as at the national level**. The survey will help determine the nature and amount of appropriate services that should be provided for all PWDs in need of those services. Such a survey could be conducted collaboratively by MOLISA, the MOH, and General Statistical Office (GSO) because of their previous experiences in conducting large-scale surveys and disability data collection. However, the effort should be in close consultation with the MOET and NGOs working in the disability field in Vietnam. International technical and financial support will be necessary for designing and implementing such a large-scale data collection. Because of the large costs involved and the great importance of the survey results to the many stakeholders, technical assistance should include careful supervision of the design, training, fieldwork, and data analysis phases of the survey. Such supervision should be done by independent, internationally recognized experts in the fields of disability and survey research. The survey should be linked to disability program objectives and interventions. The survey should probably include questions and variables on the following topics:

    - Socio-demographic characteristics;
    - Types of disability; causes;
    - Community awareness of and attitudes about disability;
    - PWDs' access to, utilization of, and satisfaction with rehabilitation services;
    - Use patterns of P&O's and other assistive devices by PWDs;
    - Follow-up services and PWD participation in IE or SE services and vocational training for PWDs;
    - The issue of aging and disability; and
    - The social and economic circumstances, needs for care, and integration of PWDs and their families in the community, etc.

    (1) Priority: High - Survey should be conducted within the next two years to serve as a nationwide baseline on the prevalence and causes of disability and the characteristics and needs of PWDs. **(2) Level Of Effort: High** - Eighteem months from survey design to final dissemination. **(3) Cost: High** - About $450,000 dollars for a large stratified random

sample survey conducted in all 61 provinces (122,000 households), including international technical assistance.

Some disability questions are likely to be included in the World Bank-funded National Health Survey for Vietnam to be conducted in the year 2000. However, because of the broad number of health areas and health issues to be covered in the Vietnam National Health Survey (VNHS), it is extremely unlikely that enough detailed training of interviewers and detailed collection of disability related information will be possible from the VNHS to meet the needs of ministries and NGOs for detailed disability data for program planning and evaluation in the field of disability. The cost of conducting a national census of disability in all households would be prohibitively expensive and may not produce estimates that are any more complete or reliable than a well-designed and well-conducted national sample survey at lower cost. Maintaining a national registry of PWDs is another option, but the costs of designing, implementing, and maintaining such a system, and keeping it accurate and up-to-date for every locality are also significant barriers to adopting the disability registry approach at this stage in Vietnam's socioeconomic development. However, should the government of Vietnam choose to initiate a national disability registry for Vietnam, and should it assume the financial responsibility for the collection of data and maintenance of the registry, this effort should, at least, be supported by the donor community by providing international technical assistance.

2. **Evaluation is needed of MOLISA, the MOH, and NGO-supported programs for providing prosthetics and orthotics and rehabilitation services in Vietnam over the past five years. An assessment of specific program needs is also needed, using numerous program relevant process, outcome, and impact indicators that measure the extent to which program objectives and targets were achieved. These evaluations will help identify ways to ensure that production and supply of high-quality, durable prosthetics and orthotics and rehabilitation services are sufficient to meet the demand for these devices and services.**

   The evaluations should be well-planned and carried out by independent experts in the field in cooperation with project staff to ensure valid and objective results. Funding for the evaluation activities of disability projects should generally be only a small fraction (e.g., approximately 10 percent) of the total budget for disability project interventions.

   For example, for each center indicators should be collected and evaluated using service statistics and follow-up visits with P&O clients, such as number and percent of P&O clients still wearing their device regularly after one and two years; percent of P&O clients satisfied with the device received, by type of device received (and type of material device was made out of); percent of P&O devices that malfunctioned in the first year of use, by type of device; percent of PWD clients satisfied with the physical therapy and rehabilitation services received; number and percent of P&O clients who paid for the P&O devices (and/or rehabilitation services) and amount paid; and percent of P&O clients who received follow-up care. Other indicators could be constructed using survey data, if available or collected as part of a post-intervention evaluation. For example, from survey data estimates could be made of the percent of persons in the community needing

prosthetics and orthotics who have received at least one device in the last five years (by source of device), and for those not receiving a device, the reasons given for not having any P&O device. Indicators could also be constructed measuring the percent of motor-disabled persons who received vocational training; percent who received inclusive education and/or special education; and percent who are currently working, by whether or not these persons are using an appropriate P&O device. Similar indicators could be constructed for persons with other types of disabilities (e.g., vision, hearing and speech, and learning disabilities). These indicators could be used to evaluate the success of other types of disability interventions such as inclusive education and vocational training programs.

Occasionally a particularly successful project intervention might deserve more in-depth evaluation and documentation. Some stakeholders have expressed an interest in documenting the NGOs' contributions and successes in assisting the government ministries in providing prosthetics, orthotics, and rehabilitation services to PWDs in Vietnam.

(1) Priority: High. **(2) Level Of Effort: Medium** - three months to conduct evaluation of service statistics, in-depth interviews with P&O clients and providers, a rapid assessment follow-up survey, and observations of a small sample of P&O clients one year after they received P&O devices and/or rehabilitation/PT; and conducting a small population-based survey of all motor-disabled in the community including those who did not receive services from the center. **(3) Cost: Medium** - About $40,000 for evaluation of each NGO project (e.g., WVI and VVAF), including survey design, local survey teams, survey fieldwork, and international evaluation consultant, or a total of $80,000 for small rapid surveys and evaluation of two NGO projects.

3. **Support should be provided to disseminate and share disability data collected by various ministries and NGOs.** The NGO Disability Forum could play an important facilitating role in this process. Such efforts will help to ensure data comparability, avoid gaps and redundancies in data collection, and draw on and share lessons learned from intervention results that can be used for program improvement and policy changes. Closer cooperation is needed between the MOH and MOLISA on collecting disability data, as well as on developing much closer links and referrals between the MOH's CBR service program and MOLISA's orthopedic rehabilitation centers and prosthetics and orthotics workshops. The MOH's and MOLISA's responsibilities for disability rehabilitation services are changing in response to recent government decrees, making the sharing of disability data between the two ministries even more essential.

   (1) Priority: High - Support a data sharing and dissemination seminar in approximately two years time. **(2) Level Of Effort: Medium** - 3 months for data sharing dissemination seminar/workshop including MOLISA, MOET/NIES, MOH, DOLISA, HPU/TDCSE and NGOs and support for standardizing disability definitions used for data collection, standardizing computer software used, and preparing disability data updates in periodic newsletters. **(3) Cost: Medium** - About $50,000 with some of this support going to the NGO working group (or selected NGO members) to coordinate the data sharing and data dissemination effort. Some of this support would be allocated to assist MOLISA, MOH,

and MOET in organizing, preparing, and disseminating disability data, research findings, and lessons learned from their disability programs.

4. **More data needs to be collected and evaluated on education programs, vocational training, employment, integration of PWDs in the community, and PWDs' access to and use of these services.**

   (1) Priority: Medium - an assessment could be conducted in about two years time. **(2) Level Of Effort: Medium**: three months for rapid assessment data collection and evaluation**. (3) Cost: Medium** - about $25,000 for each NGO project (e.g., World Concern, CRS, and PSBF), including data collection, evaluation, and an international evaluation consultant, or a total of about $75,000 for evaluations of three NGO projects.

5. **An in-depth qualitative research study should be conducted on the life situation and needs of PWDs, and to assess and understand the level of awareness, knowledge, attitudes, beliefs, and misconceptions in the community concerning different kinds of disabilities and PWDs.**

   (**1) Priority: High** - a qualitative anthropological study of community knowledge, attitudes, beliefs, and practices concerning PWDs, local terminology used to refer to various disabilities, and qualitative in-depth information on the life circumstances (social, economic, and cultural) of PWDs. These data should be collected within the next 6 to 12 months (preferably prior to the proposed national disability survey) using in-depth interviews, focus group discussions, and observations techniques **(2) Level Of Effort: Medium** - six months for designing and conducting the fieldwork and dissemination of the results. (3) **Cost: Medium** - about $50,000 including design, training, fieldwork, analysis, dissemination, and cost of an anthropologist expert.

6. **Technical support should be provided to MOLISA, MOH, and MOET/NIES in collecting disability data, analyzing data, and disseminating and using results from various sources to formulate policy, improve program performance, and prevent disabilities in the future** (e.g., using disability surveys, CBR surveillance data, and client service statistics). NGOs can assist in this effort to help ensure that data collected at rehabilitation centers, workshops, and project intervention sites are used effectively for planning, decision making, and improving program performance at the local and national levels.

   (1) Priority: Medium - Technical support should be provided sometime over the next three years. **(2) Level of Effort: Medium** - About six months of technical assistance by an international expert, spending about two months with each of the ministries (i.e., two months at MOLISA's Center for Information and Statistics and Rehabilitation Institute, two months at MOH [including the Department of International Cooperation, CBR program, NIP, and Bach Mai Rehabilitation Center], and two months at MOET's NIES and the HPU TDCSE). **(3) Cost: Medium** - $70,000 including covering the costs of statistical software, graphics software, and Powerpoint presentation and desktop publishing software; conducting training sessions and a dissemination seminar on the use

of disability data for decision making and program improvement; and hiring the international technical consultant.

7. **More follow-up data on PWDs who receive rehabilitation should be collected some time after they receive rehabilitation services (medical/surgical, PT, IE, VT, etc.) to determine the longer-term impact of these efforts on improving the lives of PWD.**

   (1) Priority: Medium - This activity should be integrated into the normal data collection efforts of PWDs receiving rehabilitation services. **(2) Level of Effort: Low** - Perhaps two days a month spent by rehabilitation center staff following-up a sub-sample of clients after one year of receiving services to assess their satisfaction with the devices and services and to evaluate their extent of integration into the community (i.e., taking a more holistic approach toward the PWDs/clients, rather than giving them a prosthetic limb and sending them off on their own without follow-up). **(3) Cost: Low** - The main additional costs would be for the transport to the homes of PWD/clients for the follow-up visits.

8. **More data should be collected and analyzed on the durability and cost-effectiveness of various prosthetic and orthotic devices (by type of materials used, techniques and design types, and rehabilitation center producing the devices) and on the cost-effectiveness of alternative rehabilitation strategies (e.g., special education versus inclusive education programs).**

   (1) Priority: Low. (2) Level of Effort: Medium - Collecting cost data and output data in special studies could eventually be integrated into the routine MIS data collection system. **(3) Cost: Variable** - The cost will depend on the size of the study and level of complexity of the data to be collected. Cost-effectiveness of various inclusive education and special education strategies or approaches could also be conducted, as well as cost-effectiveness studies of various vocational training programs. These cost-effectiveness studies would contribute to the development of a more sustainable disability rehabilitation program for Vietnam. However, until rehabilitation services become more widespread and the level of the economy becomes further expanded, it is probably too early to examine cost-recovery issues and people's willingness and ability to pay for disability rehabilitation services in the current socioeconomic context of Vietnam.

9. Ministries and NGOs should collaboratively identify, develop, and use key variables, definitions, and indicators to measure the progress of disability programs, to evaluate the impact of the implementation of the 1998 Ordinance on Disabled Persons in Vietnam, and to ensure that these data are collected by the appropriate agencies in a timely manner. More indicators for monitoring progress and evaluating the impact of rehabilitation and integration programs for CWDs and AWDs are needed. Possible indicators would be percentages of the following:

   - Those using the P&O device one year after fitting. Of those using and not using the P&O regularly, the percent who are employed or are in school.

- PWDs receiving vocational training and percent of those trained who are working one year after the training was completed and using the skills learned in the VT.

- CWDs receiving/participating in inclusive education programs. Percent of severely disabled receiving special education or inclusive education (by type of disability and type of education program received (IE or SE).

- PWDs integrated into the community as measured by participation in community cultural, recreational, social, political, and economic activities.

  CWDs/PWDs satisfied with the rehabilitation services received.

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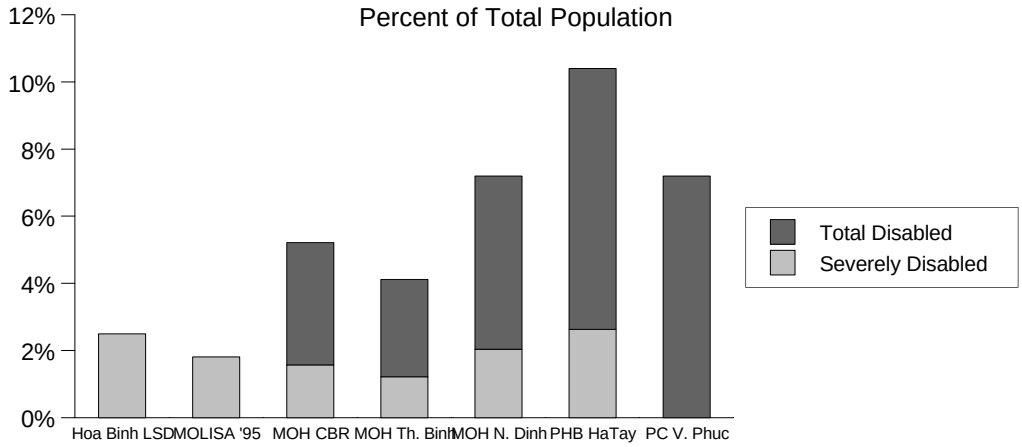
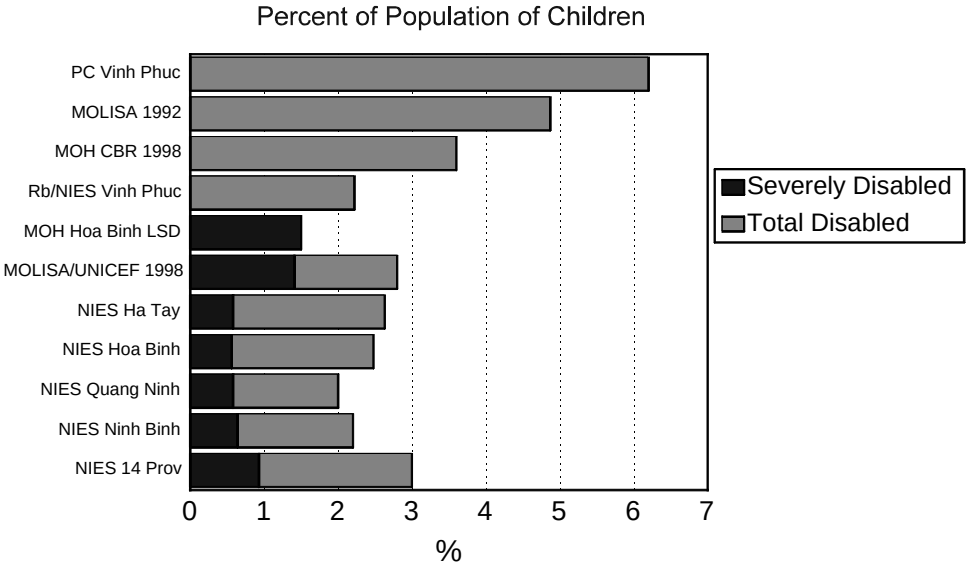
FIGURES

Figure 1. Prevalence of Disability and Severe Disability in Vietnam, Selected Areas: 1994-1998



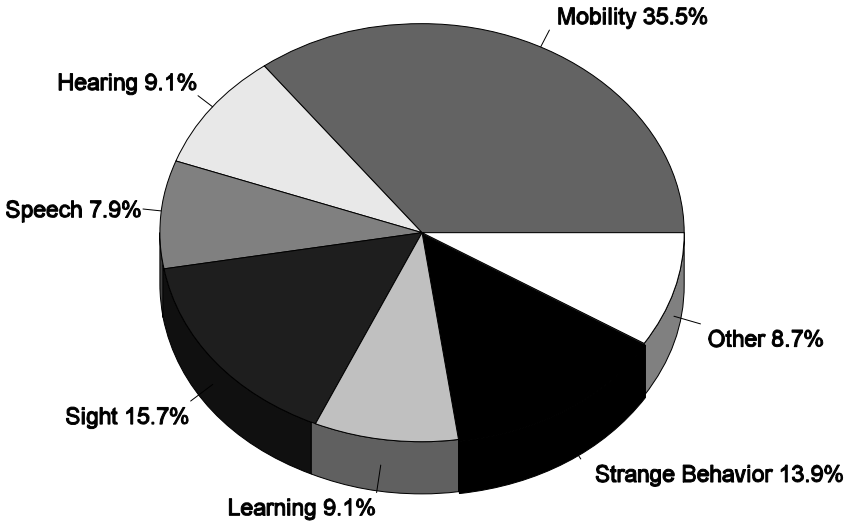
Source: Selected MOLISA, MOH, MOET/NIES and NGO Surveys and CBR data 1994-1998

Figure 2. Prevalence of Disability in Children in Vietnam, Selected Areas: 1991-1999



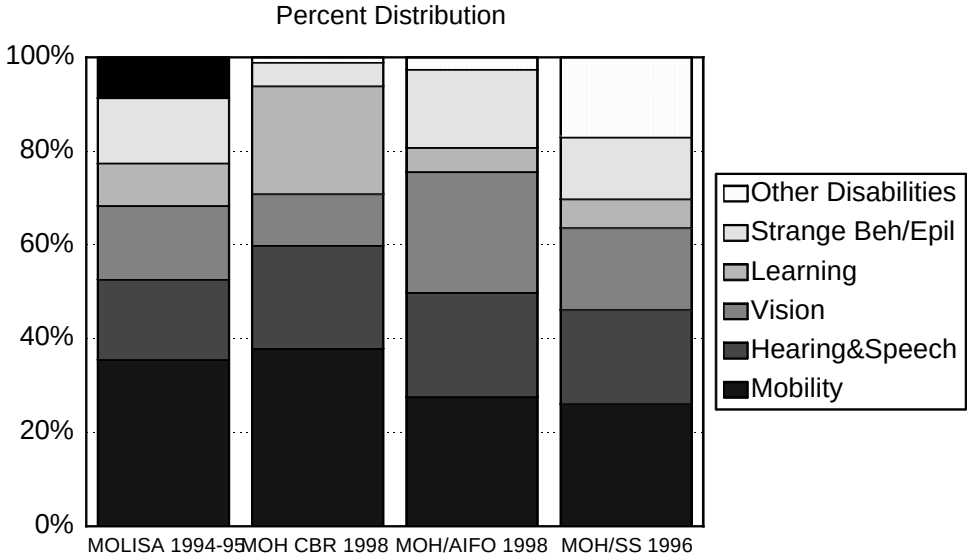
Source: Selected MOLISA, MOH, MOET/NIES and NGO Surveys and CBR data 1991-1999. (Children 0-15, 0-16, or 0-17)

Figure 3. Severe Disabilities: 1995



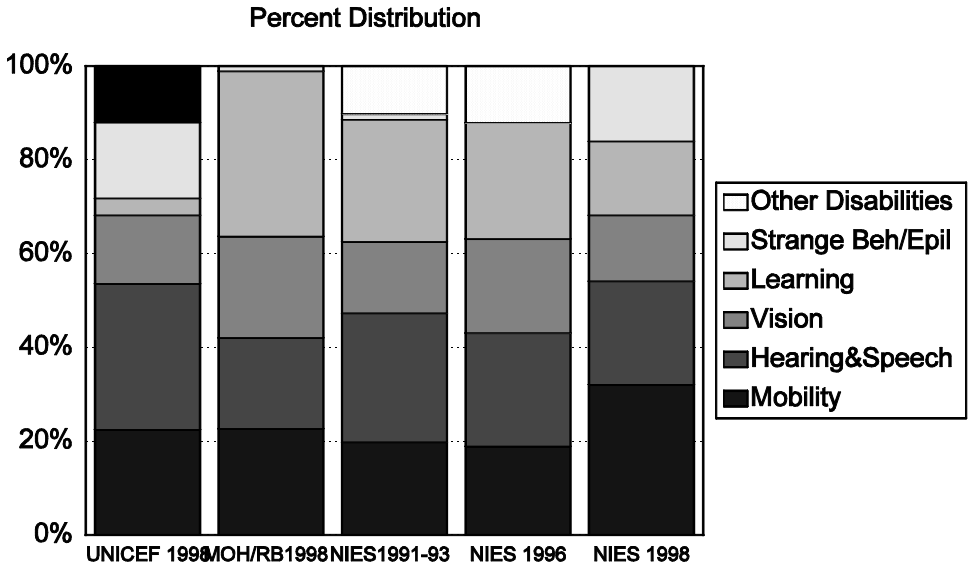
Source: MOLISA 1994-1995 Disability Survey

Figure 4. Types of Disabilities in Vietnam: Selected Studies



SOURCE: MOLISA 1994-1995 Disability Survey; MOH CBR Data; MOH/AIFO Survey of 10 communes in Thai Binh Province; and MOH 1996 Special Survey of 8 Communes in Ha Tay Province

Figure 5. Types of Disabilities Among Children in Vietnam



SOURCE: MOLISA/UNICEF1998 Children Disability Survey(Ages 0-17); MOH/Radda Barnen Disability Study in 6 Communes in Tien Giang Province(Ages 0-16); NIES Surveys in 187 communes 1991-1993(Ages 0-15); NIES 1996 Survey in 14 Communes in Ha Tay Province(Ages 0-15); NIES 1998 Survey in 6 Communes in Vinh Phuc Province(Ages 0-15).

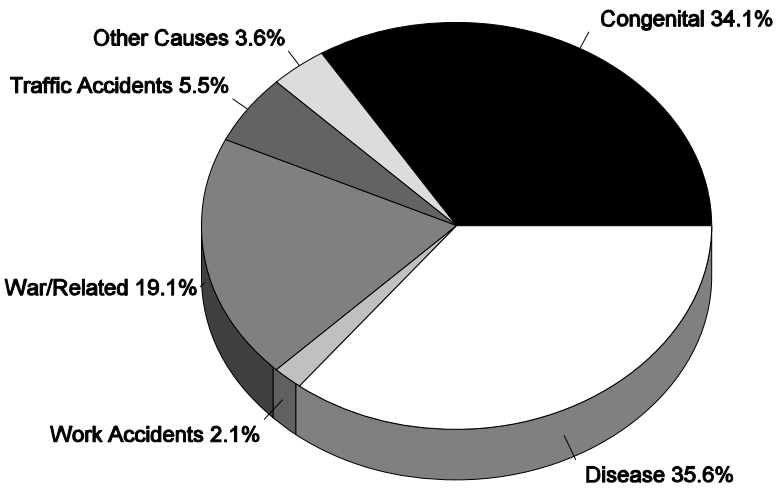
Figure 6. Estimated Range of Numbers of Persons in Vietnam with Disabilities by Type of Disability: 1999

Minimum and Maximum Estimates

Type of Disability	Minimum	Maximum
Vision	440000	800000
(Blind)	230000	260000
Hearing	320000	500000
(Deaf)	80000	200000
Motor	525331	1525000
(Amputee)	65000	230000
(Paralysis)	151788	151788
(Other Motor)	266000	1143212
Speech	117389	884268
Learning	206351	927000
Strange Behavior	135003	162250
Epilepsy	40000	40000
Leprosy	20000	50000
Other	112899	1273000
Total	1916973	6161518

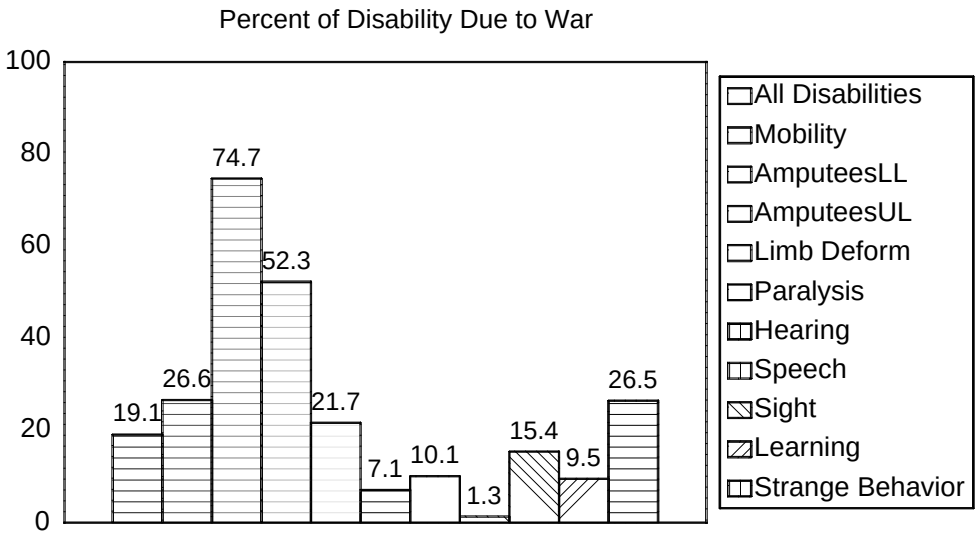
Source: Based on various sources, numbers and rates quoted. Minimum estimates include only more severly disabled.

Figure 7. Causes of Severe Disabilities in Vietnam: 1995



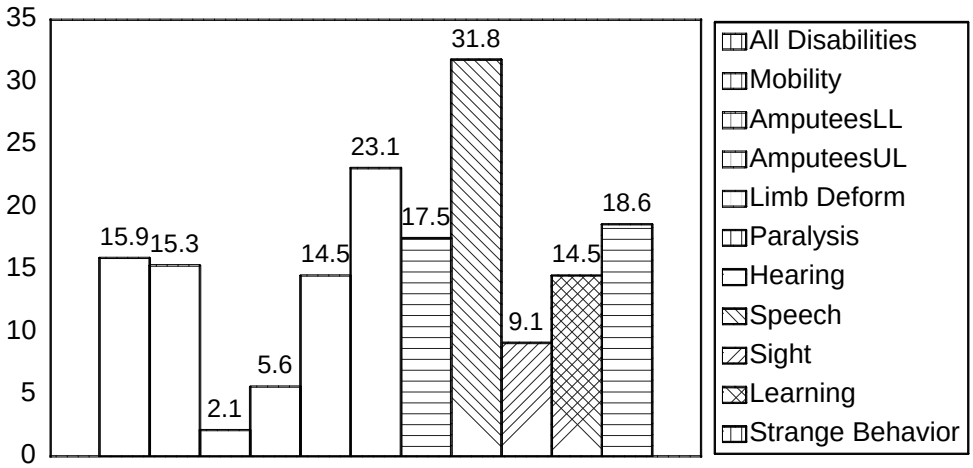
Source: MOLISA 1994-1995 Survey

Figure 8. Percent of Disabilities Due to War by Type of Disability: 1995



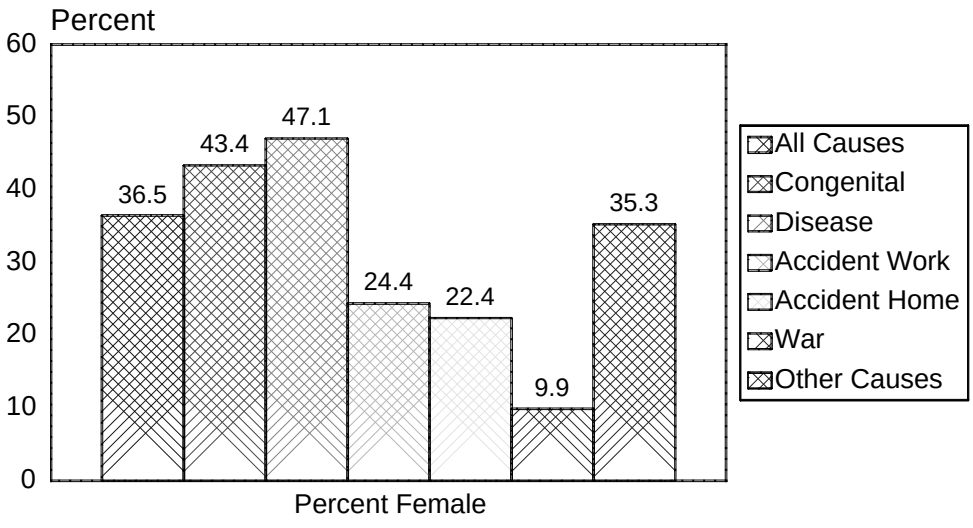
Source: MOLISA 1994-1995 Disability Survey

Figure 9. Percent of Persons with Disabilities Under Age 16 by Type of Disability: 1995



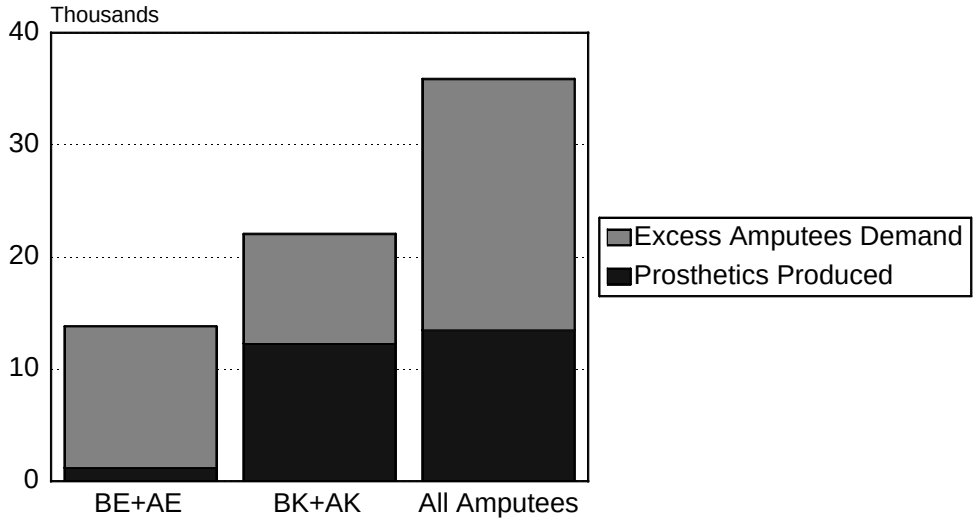
Source: MOLISA 1994-1995 Disability Survey

Figure 10. Percent of Persons with Severe Disabilities Who Are Female, by Cause of Disability: 1995



Source: MOLISA 1994-1995 Disability Survey

Figure 11. Demand for and Production/Supply of Prosthetics: 199



Source: MOLISA 1994-95 Survey data on amputees, and MOLISA, MOH, DOLISA, and Private Orthopedic Workshop data for 1998. Note: assumes all amputees require a prosthetic; workshop reports on prosthetic production are complete; prosthetics need replacement every three years; multiple amputees are counted for each prosthetic needed; number of amputees and prosthetic production have been constant since 1995.

APPENDICES

APPENDIX A: SCOPE OF WORK

The purpose of this review was to examine and analyze existing statistics on disability and related data sources, documents, studies, and government and NGO activities on disability in Vietnam:

The two main objectives of the review study are as follows:

Assess knowledge on the prevalence of disability, types of disability, causes of disability, characteristics of PWDs; the need for prosthetic and orthotic services; and the supply of such services in Vietnam; and

Determine additional data needed to fill the gaps in information on the demand, supply, and rehabilitative service infrastructure needs for PWDs in Vietnam.

The primary task is to conduct a research review of available information on the prevalence of disability and on the needs of persons with disability in Vietnam.

1. The researcher is responsible to a steering committee, which guides the research. The names of the constituent bodies guiding the research are the Ministry of Labour, Invalids and Social Affairs (Coordinating), Ministry of Health, Ministry of Education and Training, POWER, World Vision, VVAF, and HVO.

2. The researcher consulted fully with the assigned members of the steering committee to establish the extent of the data produced over the past decade on the prevalence of disability throughout the country. Participating organizations provided full cooperation with the researcher.

3. VVAF and World Vision provided some interpretation services, coordination of field visits in the Hanoi area, and office services for the consultant in Hanoi, particularly Mr. Minh, Mrs. Lan Huong, and Mr. Patrick Bracken of WVI and, Chuck Searcy, Ms. Dung and Dr. Thuy of VVAF. Mr. Tue and Mr. Tuan of MOLISA assisted in arranging many of the field visits to rehabilitation centers and orthopedic workshops throughout Vietnam (e.g., Ba Vi, Haiphong, Da Nang, HCM City, and Quy Nhon). Dr. Ha Ahn, Mr. Phu, and Dr. Viet of MOLISA also provided valuable assistance during the review. Dr. Hai, Dr. Lung, and Dr. Nghiem of the MOH assisted in arranging visits at the MOH main offices in Hanoi, Hue Rehabilitation Center, the National Institute of Pediatrics, and Bach Mai Hospital and Rehabilitation Department.

4. The researcher visited organizations, both governmental and nongovernmental, including international organizations, to establish what survey work, service statistics, and other management information system (MIS) data have been collected on disability in Vietnam. This included information collected in surveys, community-based rehabilitation (CBR) programs, and NGO disability project service statistics, as well as data from the registers of orthopedic and rehabilitation centers, hospitals, commune medical stations, and

information on prosthetic and orthotic production and costs from the orthopedic workshops throughout the country.

5. As part of this investigation, the researcher evaluated proposals for further data collection on disability by such organizations as World Bank/MOH Vietnam National Health Survey (VNHS) to establish whether these efforts were likely to provide the type of information needed for the purposes specified in this scope of work, and whether such data would be provided in a timely manner.

6. The researcher analyzed the existing data, to the extent possible within the very limited time frame of the review.

7. The researcher evaluated whether the disability information currently being collected matches the requirements of those charged with implementing the Vietnamese government s 1998 Ordinance on Disabled Persons (ODP), those planning interventions in the disability sector, and those wishing to evaluate the progress of programs against set targets and objectives.

8. The researcher made detailed recommendations for the supplementation of current information on disability through future data collection efforts.

APPENDIX B: CONTACTS

Ba Vi (1 day, May 27)

POF Prosthetics Fitting Center

Viet-Duc Rehabilitation Center and Orthopedic Workshop

Hai Phong (1 day, May 28)

Kien An Center Hai Phong (Dr. Tuan, Director)

Ho Chi Minh City (4 days, May 31-June 3)

HCM City Rehabilitation Center (Dr. Do Anh Nha, Director; Mr. Nguyen Vang Muoi) (MOLISA)

HCM City Orthopedic-Rehabilitation Centre for Disabled Children (Dr. Tran Van Tan, Director) (MOLISA)

VNAH (Mr. Bui Van Tuan)

ICRC (Mr. Peter Boetsma, Mr. Hoang Tung, Mr. Phan Thanh Tam)

Handicap International (Patrick Le Folcalvez; Jean-Claude Vesan; Mr. Tinh)

Save the Children Fund/UK (Ms. Tran Thi Nhieu; Ms. Nguyen Thi Hai, Mr. Ngyuyen Quy Tam)

Quy Nhon (2 days,June 3-4)

Quy Nhon Orthopedic and Rehabilitation Center (MOLISA) Dr. Phan Canh Cuong, Director, Mr. Nguyen Quy

World Vision Rehabilitation Project Site

Quy Hoa Leprosy Center and Workshop (Dr. Nguyen Thanh Tan, Director) (MOH)

Da Nang (2 days, June 8, 10)

Da Nang Rehabilitation Center and Workshop (Mr. Hoang Van Cuc, Director; Dr. Bui Huy Thinh; (MOLISA)

World Concern Project Office (Christine McCarthy; Mike McCarthy, Dr. Ngo Tri Tue)

Hue (1 day, June 9)

Hue Hospital Rehabilitation Center (Dr. Tan Quoc Khanh,Head of the Department of Physical Medicine and Rehabilitation and Vice Chairman of VINAREHA) (MOH)

Hanoi (34, days, April-July 1999)

VIETCOT Training Center (Pham Thuy; Wilfried Raab; Thomas Blum)

POF (Mr. Tran Duc; Ms. Pham Thuy Hong)

VVAF (Mr. Chuck Searcy (934-1607) chuck@vi.org; Ms. Sarah Pfeiffer; Ms. Dung; Dr Thuy, Mr. Long; field household follow-up visits with CWDs on May 18)

MOH (Dr. Tran Trong Hai, Deputy Director, Department of International Cooperation; Secretary General of VINAREHA; Dr. Pham Quang Lung, National Expert on Rehabilitation; Vice President of VINAREHA; Dr. Tran Huu Ngoan, Lepsoy Expert and Vice Director of National Leprosy Program)

National Institute of Pediatrics (Dr. Tran Trong Hai, Head of Rehabilitation Department; Dr. Tran Thi Thu Ha)

Viet-Duc Center Hanoi (Mr. Nguyen Xuan Hai, Vice Director)

19/12 Hanoi Center (Mr. Giang Van De, Deputy Director)

Bach Mai Hospital (Dr. Nguyen Xuan Nghiem, Head of Rehabilitation Department and President of VINAREHA)

MOLISA (Dr. Ha Anh, Director, Institute of Rehabilitation; Dr. Nguyen Tuan Viet, Institute of Rehabilitation; Mr. Phu, Director, Centre for Information Statistics; Mr.Tue, Deputy Director, Department of International Relations; Mr.Nguyen Nhu Tuan, Dept of International Relations; Ms Hoang Thuy Nhung, Head of Statistical Section, Centre for Information Statistics; Dr. Le Thanh Do, Head of Faculty of Orthopedic Technology; Dr Do Viet Tan, Vice Director Orthopedic Technical Center)

Prosthetics Outreach Center (Mr. Phan Dang Minh) (MOLISA)

Hanoi War Invalids and Social Affairs Service/Artificial Limb Production Enterprise (Mr. Giang Van De, Deputy Director)

MOET/NIES. Centre For Special Education (Mr. Le Van Tac; Mr. Phan Minh Muc)

World Vision (Mr. Patrick Bracken; Mr. Bui Quang Minh; Ms.Khong Huong Lan; Ms. Vu Thi Le Thanh)

HVO (Mr. Larry Wolfe; Ms. Chau)

Save the Children/UK/ (Joachim Thies) (see also visit to SCF/UK offices in HCM City)

World Concern International (WCI) (Bob Huff; Ms. Bai, Senior Proj. Director)

Netherlands Leprosy Relief (NLR), Jan Robijn, Representative, Nguyen Thi Ngoc Cham; Le Thu Hien; Greg Weir

Ministry of Planning and Investment, Statistics Dept, Bengt Persson, mobile 090438030; hm 8232038; ofc 8464352)

AIFO (Mr. Lorenzo Pierdomenico, Representative; Dr. Manoj Sharma, Evaluation Consultant)

Radda Barnen (Britta Ostrom, Representative, Ms. Ta Thuy Hanh)

Catholic Relief Services (Ms. Dang Huong Giang)

Pearl S. Buck Foundation (Ms. Ana Maria Locsin; Ms. Nguyen Thi Hoa)

Komitee Twee (Ms. Le Song Ngo)

Bright Future for People with Disabilities Group (BF) (Duong Thi Van, Vice chairperson of BF)

MCNV (Rick Jacobson)

Vietnam Blind Association (Mr. Le Teip; Mr. Tran Van Nam)

Counterpart International (Dr. Curtiss Swezy, Country Director)

UNICEF (Mr. Masahiro Marc Ono, Chief, Family Welfare and Child Protection Section; Mr. Vu Ngoc Binh)

UNDP (Ms. Do Thi Tuyet Nhung)

National Economics University (Dr. William Scheela; Mr. Nguyen Huu Hien, NEU Business School)

National Pedagogic University, Training and Development Center for Special Education (TDCSE) (Mr. Han Van Esch; Tran Le Thu; Nguyen Thi Hoang Yen (did not see her?))

National Center for Social Sciences and Humanities, Institute of Linguistics (Dr. Vu Thi Thanh Huong, Director, Center for Vietnamese Language and Applied Linguistics)

Center for Disease Control (USA) (Dr. Michael Linnan, Health Attache and HHS Representative, and CDC Advisor to the Hanoi School of Public Health; Dr. Vincent Campbell, Health Scientist)

Rehabilitation Centers and Workshops Visited

Viet Duc Orthopedic and Rehabilitation Center in Ba Vi (MOLISA)

Ba Vi Technical Orthopedic Center in Ba Vi(MOLISA)

Kien An Orthopedic Rehabilitation Center in Haiphong (MOLISA)

Prosthetics and Orthotics Center (POC) in Hanoi (MOLISA/POF) (CAD-CAM research and development center)

VIETCOT School of Prosthetics and Orthotics in Hanoi (MOLISA/GTZ)

19/12 Hanoi Rehabilitation and Orthopedic Company (DOLISA)

National Institute of Pediatrics (NIP) in Hanoi (MOH/VVAF/K2)

Bach Mai Hopsital Rehabilitation Department in Hanoi (MOH/VVAF/AIFO)

Viet Duc Orthopedic Workshop in Hanoi (MOLISA)

Ho Chi Minh City Orthopedic and Rehabilitation Center (MOLISA/ICRC/VNAH)

Disabled Children Center in Ho Chi Minh City (MOLISA/HI) (formerly known as the Children s Polio Center)

Qui Nhon Orthopedic and Rehabilitation Center in Binh Dinh Province (MOLISA/WVI)

Qui Hoa Leprosarium (includes rehabilitation center and small P&O workshop) in Binh Dinh Province (MOH/MOLISA Qui Nhon Center)

Hue Hospital Rehabilitation Center and Workshop in Hue (MOH/HI)

Da Nang Rehabilitation and Orthopedic Center (MOLISA/WVI)

Rehabilitation Centers and Workshops Not Visited

Thanh Hoa Orthopedic and Rehabilitation Center (DOLISA/WVI)

Tam Diep Orthopedic Center (MOLISA/MSAVLC)

Ha Tinh Workshop (belongs to Tam Diep) (MOLISA/MSAVLC)

Thuy An Children s Center (MOLISA)

Vinh Orthopedic and Rehabilitation Center (DOLISA/WVI)

Thu Duc Center in HCMC (MOLISA/VNAH through 1998)

Can Tho Center (MOLISA/VNAH)

Quang Tri Workshop (MOH/HI)

Thai Binh Workshop (DOLISA)

Quang Ninh Workshop (DOLISA)

Le-Duc-Loi private workshop in Hanoi

Mr. Thang private workshop in Hanoi

Ba Tru private workshop in HCMC

Kien Tuong Co private manufacturer in HCMC

Other Rehabilitation Departments in 53+ MOH Hospitals and 19 other Leprosarium

Notes

1. Ha Tinh Workshop belongs to Tam Diep Center; they make Jaipur BK limbs only.
2. Thuy An Center imported 200 devices in 1997.
3. Bach Mai Hospital and Thai Nguyen Province Orthopedic and Rehabilitation Center for Children plan to have orthopedic workshops in the future.

APPENDIX C: CONSULTANT'S REPORT

Following is the consultant's report on the December 17, 1998, Meeting of the Ministry of Labor, Invalids and Social Affairs of Vietnam (MOLISA) in Association with POWER on The Incidence of Disability in Vietnam."

In preparation for this review study a report was prepared by the consultant on the December 17, 1998 Meeting of the Ministry of Labor, Invalids and Social Affairs of Vietnam (MOLISA) in Association with POWER (Prosthetics and Orthotics Worldwide Education and Relief) on The Incidence of Disability in Vietnam."

The meeting was convened on December 17, 1998 to discuss the purpose, objectives, requirements, and content of a Survey of People with Disabilities in Vietnam. Invited participants were requested to prepare, prior to the meeting, a one-page summary describing their respective programs and their interest and data requirements on disability in Vietnam.

Prior discussions on a previous proposal for a full-blown census type data gathering exercise on disability had indicated that a complete census type data collection strategy may not be necessary.

Robert Horvath of the War Victims Fund/Displaced Children and Orphan Fund Office in Bangkok asked that I attend the meeting with him. Robert faxed me a four-page background document on the Incidence of Disability in Vietnam and the proposed meeting agenda for the December 17th meeting. I met with Rob the evening before the meeting to be further briefed by him and to discuss the issues and meeting agenda.

The meeting covered a number of issues including existing data sources and adequacy of information, information needs for planning and executing various disability programs in Vietnam, the purpose of and need for the proposed MOLISA/POWER survey, and the possible organization, methodology and funding of the survey.

Documentation provided to the participants included: (a) 1998 Ordnance on the Disabled in Vietnam; (b) Background document on disability in Vietnam (prepared by MOLISA); (c) Description of the survey proposal (prepared by POWER); (d) Program agenda for the meeting; (e) A one-page summary from some of the participants, describing their programmes and their interest in and requirements for data on disability in Vietnam; and (e) a MOLISA statistical report on labor and employment status (which included one table showing disability as a reason for non-employment n each province). A copy of the government Ordnance on the Disabled, and the program agenda of the meeting are attached for your information.

Meeting Participants

Nineteen organizations were invited to participate in the meeting. At least 15 organizations were represented at the meeting including the following:

1. Ministry of Labour, Invalids, and Social Affairs (MOLISA): Vice Minister Dan Huu Dac; Dr. Han Rehabilitation Institute; Mr. Nguyen Trong Phu, Director, Centre for Information Statistics Tel. 8269864; Nghiem Xuan Tue, Deputy Director, Department of International Relations, Tel. 8269534 (chief link); Mr. Cuong, Deputy Director of Social Protection; Nguyen Nhi Tuam, nternal Cooperation Officer, MOLISA (844-8269 (has names of participants); Ms. Hang is Minister of MOLISA; Mr. Thoi? Director?

2. Ministry of Health (MOH): Dr. Tran Trong Hai, Head of Rehabilitation Department and Secretary General of VINAREHA. Tel. 8343334; Dr. Pham Quang Lung, National Expert on Rehabilitation and Vice President of Rehabilitation Association, Tel.8460157;

3. Ministry of Education (MOE) and Training: Mr. Hang;

4. POWER: Michael A.B. Boddington, Chief Executive, Tel. +44(01)1491-579065;

5. World Vision: Patrick Bracken, Manager, Rehabilitation Project, Tel. 8345370 or Tel. 8347814;

6. VVAF: Chuck Searcy, Director of Vietnam Programs, Tel. 9341607, and Sarah Pfeiffer, Program and Monitoring Officer, Tel. 9341607/9341653;

7. Health Volunteers Overseas: Larry Wolfe, Tel. 9330329;

8. International Committee of the Red Cross: Leo Gasser and his assistant Hoang Tung Tel. 84-8-8242452;

9. USAID/WVF/ODCF: Robert Horvath and Thomas T. Kane;

10. Handicap International: Patrick Le Folcalvez, Tel. 84-8-8643931)

11. Save the Children U.K: Tran Thi Nhieu;

12. Save the Children: Dr. Tin Mai;

13. Viet-Cot Training Center: Thomas Blum, Technical Advisor, GTZ Tel. 8243755;

14. Prosthetics and Orthotics Foundation (POF): Ms. Hong; and

15. Counterpart International: Curtis Swezy, Country Director, Tel. 8345370/8347814.

Representatives of each of these organizations gave a brief report on their current activities and interests in the area of disabilities and rehabilitation in Vietnam and some cited some of their program data in their brief presentations.

Key Points Raised and Issues Discussed

A number of critical issues were discussed at the meeting including:

(1) Many at the meeting expressed the need to first conduct a more in-depth and systematic analysis and evaluation of existing survey and programmatic data on disabilities in Vietnam, before undertaking a large survey. This exercise may provide some useful figures and allow us to make important conclusions about what these surveys and program data show and what data is still needed. By making better use of available data, we can determine what existing data are reliable and can show some statistically significant patterns for some of the key disability variables. A number of specific sources of existing data on disability in Vietnam were identified at the meeting, including some ongoing smaller research studies by some of the NGO and government agencies. Some of the data sources included the following: MOLISA 1995 and 1998 disability surveys; MOH data on disability; Community-Based Rehabilitation (CBR) data; NGO MIS program data; and the proposed UNICEF survey and the World Bank sponsored National Health Survey.

(2) Many participants expressed the need for more comprehensive disability data for program monitoring, program planning, and management decision making (e.g., How many prosthetics and orthotics devices are needed annually in the catchment area? (e.g., communes, districts, provinces) How many trained providers/technicians/staff are needed? Where are rehabilitation centers most needed?). Some thought that it would be useful to obtain a complete count of disabled persons by type of disability and location of each disabled person (nationally or at least within specific program catchment areas). However, a representative sample survey might be sufficient for estimating the prevalence of disability at the level of province or region.

(3) The need was expressed for more comprehensive disability data to ensure better organizational accountability and coordination. For example, are there certain motor-disabled persons getting prosthetics and orthotics from different providers over a relatively short period of time? (a disabled person may be receiving several prosthetics from different providers or from different outlets of the same provider within the normal three year life of prosthetics); Donors and NGOs need data for accountability to ensure that services provided are appropriate, non-redundant, and cost-effective.

(4) Some felt that any new data collection should be linked to specific interventions, or at least, that the data be used in the design of new interventions.

(5) It was reiterated that another primary purpose of conducting a comprehensive survey on disability was for policy formulation.

(6) Some expressed the need for a comprehensive disability survey to serve as a baseline for the implementation of the government Ordinance on the Disabled and its plan of action, and to assess the needs of the disabled so that a comprehensive policy can be developed. Solid baseline information is seen as essential for any program.

(7) There was general agreement that there needs to be closer coordination and collaboration between concerned agencies if a comprehensive survey is to be conducted. The scope of the definition of disability (e.g., motor-disabled versus all disabilities) and the target populations (e.g., indigents, adults, children, etc.) relevant for specific types of interventions vary across the different agencies. The purpose of survey would need to be more clearly defined and the target groups of disabled identified for the survey. The group also recognized the need for greater coordination among governmental and NGO organizations in the provision of services for the disabled such as prosthetics and orthotics and physical, educational, and vocational rehabilitation to avoid gaps and/or duplication of services.

(8) Some expressed the need to focus the data collection primarily for the motor-disabled as the priority group (i.e., those who require prosthetic and orthotic devices and/or require physical therapy, educational and/or vocational rehabilitation). More limited information could be collected on the other general WHO categories of disability (e.g., sight, hearing, speech, epilepsy, mental disability); leprosy was mentioned as a special group in which some data are available from the MOH and other data are being collected by one NGO.

(9) Some participants pointed out the greater difficulties in recognizing and measuring some of the non-motor disabilities (e.g., mental/strange behavior; speech; hearing in terms of severity of disability). Some expressed the need to assess the level of severity of disabilities. Another issue raised was the inconsistencies in the applications of medical exams of the disabled and in the provision of certificate justifications for working capacity which may serve as a basis for social/financial support.

(10) The issue was raised on how best to assess the needs of the disabled: e.g., the need for medical, rehabilitative, vocational, preventive and participation restriction interventions. It was mentioned that the disabled population composition has been changing over time; there has been a shift in composition away from disabled war victims and increasingly higher proportions of disabled coming from accident victims (e.g., industrial, occupational, and traffic accident). Thus, there is a need to evaluate the circumstances of disabled people, not just estimate the prevalence of disability. It was suggested that we need to evaluate the demand of disabled people for financial support, vocational training, rehabilitation, and education. This may require both qualitative rapid assessments and quantitative survey data collection, and facility-based as well as population-based assessments of client needs and client satisfaction as well as the quality of rehabilitation services provided to the disabled. It was pointed out that program MIS data is collected regularly by most agencies and the need for such information is an ongoing requirement and that the survey data could sometimes be used to complement and/or validate the MIS program data.

Key Decisions Made/Consensus Reached

As summarized by Michael Boddington who facilitated the December 17th, 1998 meeting, some of the key decisions made at the meeting include:

(1) The consensus of the meeting was that suitable data are urgently required to allow the effective implementation of the Ordnance on the Disabled, for policy formulation purposes, to allow proper planning of programmes being undertaken by implementing bodies, and to act as a framework for monitoring by programme donors and others.

(2) There was uncertainty about the amount of data that already exists, how accurate and comprehensive such data are, and thus what gaps in information need to be filled. Accordingly, the meeting determined to appoint a researcher to work to a steering committee of the meeting, to gather together all such information that already exists and to report back to the steering committee by April 1999.

(3) A Steering Committee is to be formed by representatives of the following organizations:
Ministry of Labour, Invalids and Social Affairs (Coordinating Role)
Ministry of Health
Ministry of Education and Training
Health Volunteers Overseas
POWER, The International Limb Project
Vietnam Veterans of America Foundation
World Vision

(4) It was agreed that the Researcher appointed should be Dr. Thomas T. Kane, a consultant and adjunct faculty member of Johns Hopkins University School of Hygiene and Public Health and currently resident in Hanoi.

(5) Rob Horvath agreed to examine the possibility of obtaining funding for the exercise from the United States Agency for International Development War Victims Fund.

The day following the meeting (December 18th) I met with Michael Boddington for three hours to discuss the Scope of Work for the proposed Assessment/Evaluation of Existing Disability Data in Vietnam. On December 18th, I also met briefly with Larry Wolfe of HVO, and visited VVAF and met briefly with Chuck Searcy and Sarah Pfeiffer and, later in the day I visited World Vision and met with Patrick Bracken and his staff. All of the above individuals and organizations expressed their willingness to provide assistance and/or some logistical support for the proposed Review of Existing Data assignment.

Time Schedule of Disability Data Review

Received consultancy approval, obtained permissions and made appointments with all relevant organizations for interviews with key staff (rehabilitation center and NGO directors and program managers, rehabilitation and P&O specialists, and disability clients (PWDs)) in April 1999. During this time period I also sent letters to various organizations

requesting information on the number of disability clients served by type of disability, the characteristics of the disability clients (age, sex, type of disability, cause of disability, education and employment status, etc.), the number of prosthetics and orthotics produced and fitted, the number of centers, the number of provinces covered by each center, and the number of service providers at each center by type of provider (i.e., physical therapists, physicians, workshop technicians, nurses, etc.);

Made field visits, interviewed relevant staff and clients; collected data, reports, and documentation in April, May, and June 1999;

Reviewed and analyzed available data in July 1999 (e.g., 1994 1995 MOLISA Disability Survey and 1998 UNICEF/MOLISA Survey of on Disabled Children; MOH CBR data; MOET/NIES Disability Survey Data; Rehabilitation Center and P & O Workshop data; NGO MIS data and Disability Survey data --- World Vision; ICRC; NLR; AIFO; Radda Barnen, HI, VVAF, WCI, VNAH.; assessed the potential of the upcoming World Bank/MOH Vietnam National Health Survey);

Drafted report and sent out for review in late August 1999 (WVF/DCOF and Steering Committee);

Revised and finalized the Report in September 1999;

Disseminated report findings, conclusions and recommendations October December 1999.

Critical Questions Concerning Data Needs on Disability for Program Planning, Monitoring, and Evaluation

How is disability to be defined?

What age groups are commonly used?

How do you accurately measure the severity or extent of disability? How specific and how certain can we be on the causes of disability?

What are the objectives of the program and what indicators are needed monitor progress and measures success in quantifiable terms. (inputs; process; outputs; outcomes; impact)

What is the extent of unmet need for rehabilitative services; (i.e., missed opportunities forproviding services)

What is the cost of data collection;

Is there representativeness of districts, regions, country, minority groups, project catchment area (complete census or sample survey);

Is the sample size large enough to provide statistically robust estimates, given the frequency of disability in the population

What is the experience of other countries in assessing and managing disability data

What additional data and variables need to be collected for monitoring the implementation of the 1998 Ordinance on Disabled Persons.

Where are the PWDs of different types located (distribution and clusters)

What are PWDs needs?

Are the services currently being provided PWDs appropriate?

Are the current services and interventions cost-effective?

Questions on the reliability, validity, and completeness of disability

Are the data current, accurate, complete, consistent across data sources?

Are the data appropriate for measuring program progress, outputs, and impact?

How was the data collected?

Were there any biases in the data collection approach (selectivity of only certain groups, over-reporting/duplicate counting/reporting, missed areas of coverage)?

Do the data need to be adjusted?

What information/variables are still needed? (e.g., educational and vocational needs; physical rehabilitation care and treatment; fitting and distribution of P&O devices)

How should people with multiple disabilities be classified and how do you analyze data on multiple disabilities?