Nepal Earthquakes 2015:

Desk Review of Existing Information with Relevance to Mental Health & Psychosocial Support

On behalf of:

Inter-Agency Standing Committee
IASC Reference Group for Mental Health and
Psychosocial Support in Emergency Settings

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Table of Contents

Acronyms

ACAPS	Assessment Capacities Project
AF	Advocacy Forum Nepal
BDS	Blue Diamond Society
CBOs	Community-Based Organizations
CMAM	Community Management of Acute Malnutrition
CMC	Centre for Mental Health and Counselling
CPN(M) or UCPN(M)	Communist Party of Nepal (Maoist) now Unified CPN(M)
CPSWs	Community Psychosocial Workers
CVICT	Centre for the Victims of Torture Nepal
FCHVs	Female Community Health Volunteers
GBV	Gender Based Violence
IASC RG MHPSS	Inter-Agency Standing Committee Reference Group for Mental Health and Psychosocial Support in Emergencies
IDPs	Internally Displaced Persons
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
LACC	Legal Aid and Consultancy Center
LWF	Lutheran World Federation
MHPSS	Mental Health and Psychosocial Support
MOHP	Ministry of Health and Population, Government of Nepal
NGOs	Non-Governmental Organizations
NHF	National Health Foundation
OHCHR	Office of the High Commissioner for Human Rights
OSOCC	On-Site Operations Coordination Centre
PTSD	Posttraumatic Stress Disorder
RNA	Royal Nepal Army
SS	Shakto Samuha
TdH	Terre des Hommes
TPO Nepal	Transcultural Psychosocial Organization Nepal
WFP	World Food Programme
WHO	World Health Organization
UNHCR	United Nations High Commissioner for Refugees
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs

Executive summary

Why was this desk review done? (Section 1.1)

This document describes a desk review started after the April 25 and May 12 earthquakes in Nepal. The main aim of the desk review was to summarize existing information with regard to mental health and psychosocial wellbeing in Nepal. It is hoped this desk review will help people responding to the earthquakes to take into account information on the socio-cultural context in Nepal, and to avoid collecting information in needs assessments that is already available. Conducting a desk review after major emergencies is part of the 2007 'Inter-Agency Standing Committee Guidelines for Mental Health and Psychosocial Support in Emergencies'.

How was the desk review done? (Section 1.2)

The desk review was undertaken by a group of more than one hundred collaborators working on behalf of the Inter-Agency Standing Committee for Mental Health and Psychosocial Support in Emergencies. Faculty and (post)graduate students at several universities used the same methods to search the academic and grey literature from multiple disciplines; screen the results from searches; and summarize relevant documents. A version for peer review was completed and shared on 22 May 2015 and a final version made available in early June.

What kind of information was available? (Section 1.2)

Searches identified 563 documents and 242 documents were included in writing this desk review. Documents included both information from (program) reports on websites as well as research published in peer-reviewed journals. The peer-reviewed literature on mental health and psychosocial wellbeing has focused primarily on mental health for populations affected by political violence in Nepal, including populations affected by armed conflict, torture survivors, and displaced populations (internally displaced populations, refugees from Tibet and Bhutan).

What should I know about the general context in Nepal? (Section 2: 2.1-2.9)

Nepal is a landlocked country with high geographical diversity and is divided into three types of ecological zones, running from almost sea level to the highest point on earth. It is prone to a range of natural hazards. Between 1996 and 2006 a Maoist insurgency was aimed at establishing a communist state and reducing inequalities related to gender, caste, ethnicity, and rural-urban divides. A peace agreement has been followed by continued political instability, and a new constitution remains to be finalized. Economically, Nepal is classified as a low-income country with low levels of development. The economy revolves strongly around agriculture, but as of recently remittances from migrant workers in Gulf countries have formed almost a third of income.

Demographically, Nepal has a young population living mainly in rural areas. Although a very small country, Nepal is considered to possess great cultural richness and diversity. Over 60 different languages are spoken by more than 35 ethnic groups. Most people adhere to Hinduism (81%) and Buddhism (9%). Although forbidden by law, the Hindu caste system – which overlaps partly with ethnicity - is an important principle of social organization. The caste system is complex and currently undergoing changes, but plays a role in distribution of political and economic privileges. In addition, gender disadvantage varies across ethnic groups, with most ethnicities adhering to greater or lesser degree to a patriarchal value system. Cultural and religious identity can influence the experience of a traumatic event and ways of (collective) healing and coping. Religious sites are important sources of

connection to the religious and ancestral world and damage to sites of religious practice may disrupt traditional ways of healing.

Average life expectancy is 68 years, which is standard for South Asia. The top five largest contributors to years of life lost include infectious diseases and maternal and neonatal conditions. Non-communicable diseases and self-harm are becoming important causes of years of life lost. Suicide is the leading cause of death for women of reproductive age. When taking into consideration years lived with illnesses, household air pollution from solid fuels, tobacco smoking and dietary risks are key contributors to ill health. Government health care is free of charge, but access to health care in rural areas is limited. Most people use multiple health systems, including Ayurveda, Tibetan medicine and shamans, with allopathic (biomedical) care often as a last resort.

What are the prevalence rates of mental health and psychosocial problems in Nepal? (Sections 3.1.1, 3.1.5)

Most research on mental health in Nepal has focused on populations affected by political violence. Based on these studies and estimations from studies in other countries, it can be expected that a large proportion of the population will suffer psychological distress: around 15 to 20% will have a mild or moderate mental disorder (e.g. mild and moderate forms of depression and anxiety disorders, including mild and moderate PTSD), and around 3 to 4% will have severe mental disorder (e.g. psychosis, severe depression, severely disabling form of anxiety disorder). In populations affected by political violence, common risk factors for mental illness include higher exposure to potentially traumatic events, gender, caste, poverty, age. Factors shown to be protective for mental illness include higher family, peer and other social support, marital status and higher levels of education.

What are cultural concepts of distress, Nepali language terms related to mental health, and beliefs related to mental illness in Nepal? (Sections 3.1.2-3.1.4)

Among Nepali groups, there are complex divisions of the mind, body, and spirit which influence the way mental health and psychosocial problems are experienced, explained, and expressed. In addition, there is considerable variation among Nepal's diverse cultural groups. Broadly, for many Nepali-speaking groups the *heart-mind* (*man*) is the organ of emotion and memory. The *brain-mind* (*dimaag*) is the organ of cognition and social behavior, which regulates behaving appropriately. Other aspects of the self that are affected by mental health and psychosocial problems include one's social status, spirit/soul, physical body, family and social connections, and ancestral connections. Mental health and psychosocial problems can be attributed to life stress, physical illness, religious infractions, bad *karma*, and being born with an inauspicious astrological forecast, (e.g., poor fate). Traumatic life events and large-scale disasters, such as an earthquake, can be believed to cause mental health and psychosocial problems though soul loss (*saato jaanchha*), loss of love ones, and economic stress. Psychological treatments and psychoeducation previously have been adapted to employ Nepali concepts of self for better communication and treatment.

In Nepali and other languages spoken in Nepal, there are no terms that directly translate as biomedical psychiatric categories, such as depression, PTSD, and behavioral disorders. Idioms related to "mental" illness (e.g., *maanasik rog, maanasik samasya*) represent problems with the brain-mind, which are often perceived as incurable and highly stigmatized. Idioms related to the heart-mind (e.g., *manko samasya, manmaa kura khelne, manma pir padne*) are perceived as something that can be healed and are generally socially acceptable to discuss. Traumatic intrusive memories related to disasters can be described as wounds/sores on the heart-mind (*manko ghau*). Somatic complaints are also common among persons with psychological distress; examples include paresthesia/numbness or tingling (*jhamjham aaune*), abdominal pain/acid reflux (*gyastrik*), headaches and head burning (*thauko dukhne, kapaal polne*). There

are comparable concepts of the self and distress among Tibeto-Burman language speakers; in addition, the concept of *rlung* in Tibetan refers to stress-related health and psychological problems.

What are common sources of support and care for mental health and psychosocial problems outside of the biomedical health system? (Sections 3.1.6-3.1.10)

Families are likely to seek multiple forms of care simultaneously for mental health problems and may present the same distress in different ways to different practitioners. Much help-seeking takes place outside the formal mental health system. Women, despite carrying a greater burden of mental health problems, may be less likely to pursue formal care in Nepal. Trauma survivors, such as torture and disaster victims, may feel responsible for negative life events affecting them and their families and thus may be less likely to seek care. Care for suicidality is rarely sought through biomedical services due to fear of police involvement, as suicide is a crime in Nepal. Traditional healers are the most prevalent care practitioners in Nepal and are often the first point of call for individuals with mental health problems. Some traditional healers, for example *dhami-jhankri, lama,* or *gurua*, address psychological distress by appeasing the spirits or witches believed to be responsible, or calling back a lost soul. Tibetan Medicine is another traditional healing system with an extensive psychiatric/psychological practice including diagnosis and treatment of stress and conditions resulting from traumatic events.

In the social sector, a number of local and international non-governmental organizations offer psychosocial support services, some with the capacity to train non-specialists using concise, manualized training programs to deliver psychosocial support. Combined, these organizations have trained hundreds of psychosocial workers, the vast majority of whom have completed short courses. Several publications also emphasize the importance of building appropriate psychological and mental health interventions into the education sector to reach children. However, many vulnerable groups are excluded from education, and physical and psychological punishments practiced commonly in schools have been demonstrated to lead to depression and suicidality among students.

The informal sector, including families, friends, neighbors, local religious and cultural assemblies, and community-based organizations (CBOs) such as women's groups, mothers' groups, child clubs, youth groups, and child protection committees, is the most common site of help-seeking for mental health and psychosocial problems in Nepal due to the perception that family and religious supports are more appropriate contexts for disclosure and coping. Informal sector supports often focus on solving problems perceived to be the root causes of distress (e.g., economic problems), rather than simply providing an outlet for emotional catharsis. Based on social hierarchy, informal sector supports, especially religious-affiliated groups, may exclude marginalized groups who also carry the greatest burden of mental health and psychosocial problems.

What is the structure of the formal mental health care system in Nepal? (Section 3.2.1-3.2.3)

In Nepal, there is no mental health act and the National Mental Health Policy is yet to be fully operational, though several policy frameworks do make mention of mental health. The current National Mental Health Policy for Nepal aims to: (1) ensure minimal mental health services for the entire population, (2) develop human resources through training programs for specialist and general health workers, (3) protect human rights of the mentally ill, and (4) improve awareness about mental health. Mental health and psychosocial relief are not adequately addressed in the Health Sector Emergency and Disaster Response Plan of the Ministry of Health, but several concrete initiatives have taken place to plan and prepare for mental health and psychosocial support in emergency situations.

There is one hospital in the country, located in Kathmandu, exclusively devoted to psychiatric and mental health care. Outside of Kathmandu, there are four government hospitals that offer psychiatric services, located in Bharatpur, Pokhara, Nepalgunj, and Biratnagar. The state-run mental health

facilities include approximately 400 beds and human resources consisting of 0.18 psychiatrists, 0.25 nurses, and 0.04 psychologists per 100,000 people. There is a lack of infrastructure to support mental health services, resulting in poor supply of drugs at the grassroots level and poor referral pathways from primary to tertiary services. In addition, there is a lack of standardized practices for prescribing psychiatric drugs among health workers. Help-seeking through psychotropic medication is increasing throughout Nepal, and most psychiatric drugs can be obtained without a prescription.

What are the prior experiences in Nepal with humanitarian emergencies? (Sections 4.1-4.3)

Nepal is highly vulnerable to natural disasters including floods, landslides, epidemics, and earthquakes and has experienced a recent (1996-2006) armed civil conflict. The Government of Nepal lacks a focal point for (emergency) mental health and psychosocial support. Humanitarian aid organizations have had a strong presence in Nepal over the last few decades and psychosocial and mental health programs have been set up in previous emergencies, including programs for former child soldiers, families of long-term missing people, flood victims and refugees. In 2009, an inter-agency initiative focused on the adaptation and application of the IASC Guidelines for Mental Health and Psychosocial Support in Emergencies for Nepal. Overarching themes emerging from the literature on prior humanitarian aid initiatives in Nepal include: the importance of cooperation and competent coordination, early plans for sustainability, consideration of vulnerable groups and setting characteristics, addressing daily challenges in parity with disaster response, and avoiding potential adverse consequences of aid.

1 Introduction

On April 25th at 11:56 local time, an earthquake of magnitude 7.8 struck Nepal, with an epicenter 77 kilometers northwest of Nepal's capital Kathmandu in the Gorkha district. As of May 15th, 8,316 people had been reported killed and 17,866 people injured. The relatively shallow depth of the earthquake, at 2 kilometers, was associated with particularly strong forces dispersed over a wide geographic area. The most heavily-affected districts were mapped by the On-Site Operations Coordination Centre (OSOCC) in Figure 1.

On May 12th at 12:50 local time, another earthquake (magnitude 7.3) struck with an epicenter 76 kilometers northeast of Kathmandu in the Dolakha/Sindhupalchowk districts. This earthquake affected districts already strongly impacted by the April 25th earthquake as well as new districts. As of May 15th, 117 deaths and 1961 injured have been reported as a result of this earthquake.

Ongoing updates with the latest information on the earthquake and overall humanitarian assistance can be found at:
- Reliefweb: http://reliefweb.int/disaster/eq-2015-000048-npl
- Assessment Capacities Project (ACAPS): http://www.acaps.org/en/pages/nepal-earthquake
- The platform provided by the UN Office for the Coordination of Humanitarian Affairs (UNOCHA): https://www.humanitarianresponse.info/operations/nepal

The flash appeal that details requests for humanitarian assistance can be found here: http://reliefweb.int/report/nepal/nepal-flash-appeal-response-nepal-earthquake-april-july-2015

1.1 Rationale for desk review

This desk review was undertaken to provide an overview of existing information with relevance to mental health and psychosocial support (MHPSS) interventions. Such an overview, it is hoped, assists humanitarian and other practitioners in ensuring that MHPSS interventions build on the local socio-cultural and health system context. Also, such an overview may assist in avoiding the collection of information in needs assessments that is already available. Conducting a desk review after major emergencies is part of the 'IASC Guidelines for Mental Health and Psychosocial Support in Emergencies'.

1.2 Desk review methods

The desk review was implemented in line with a suggested methodology from the World Health Organization (WHO) and United Nations High Commissioner for Refugees (UNHCR) toolkit for MHPS needs and resource assessments [1], using systematic review methodology. The WHO-UNHCR toolkit includes a template for the table of contents for a desk review (Tool 9).

The desk review was a collective effort involving faculty and students at several universities and humanitarian agencies (see acknowledgements). Overall, we aimed to strike a balance in our approach, conducting a desk review that was thorough and inclusive while at the same time realizing the importance of providing information in a timely manner to inform a more comprehensive MHPS response - that is, as soon as possible after the immediate MHPS response in the first weeks.

NEPAL EARTHQUAKE 2015
Human Casualities and Fully/Partially Damaged Buildings

OSOCC
Assessment Cell

District	Total Houses	Total Population	Dead	Injured	Government Houses Fully Damaged	Government Houses Partially Damaged	Private Houses Fully Damaged	Private Houses Partially Damaged
Sindhupalchowk	66688	287798	3057	860	0	0	44310	18991
Kathmandu	436344	1744240	1222	4634	9990	12915	27640	33215
Nuwakot	59215	277471	979	1311	16	0	30000	15000
Dhading	73851	336067	718	702	200	28	20000	15000
Rasuwa	9778	43300	491	753	0	0	8000	1000
Gorkha	66506	271061	408	1034	40	14	44607	13236
Kavrepalanchowk	80720	381937	317	2780	2	93	30000	18545
Bhaktapur	68636	304651	315	1861	0	0	7000	2000
Lalitpur	109797	468132	176	2529	252	259	16344	5851
Dolakha	45688	186557	75	304	6	0	5000	35000
Makawanpur	86127	420477	33	127	0	0	363	497
Ramechhap	43910	202646	27	34	0	0	17072	23148
Solukhumbu	23785	105886	22	80	21	13	2483	6176
Okhaldhunga	32502	147984	19	53	11	12	8000	10000
Sindhuli	57581	296192	11	148	18	166	4159	8545

(Data Source: MoHA/NEOC as of 10 May 2015)

Legend

Both Fully and Partially Damaged Buildings

- 860 - 1000
- 1001 - 10000
- 10001 - 25000
- 25001 - 50000
- 50001 - 83760

Gorkha 408 / 57897
Rasuwa 491 / 9000
Dhading 718 / 35228
Nuwakot 979 / 45016
Sindhupalchok 3057 / 63301
Kathmandu 1222 / 83760
Dolakha 75 / 40006
Solukhumbu 22 / 8693
Bhaktapur 176 / 22706
Makawanpur 33 / 860
Lalitpur
Kabhrepalanchok 317 / 48640
Ramechhap 27 / 40221
Okhaldhunga 19 / 18023
Sindhuli 11 / 12888

This map shows the total number of deaths and destruction to buildingd in the most affected districts. This includes both government and private buildings fully and partially damaged. The map is generated based on government data released by MoHA/NEOC, 10 May 2015.

Source: Assessment Registry (https://www.humanitarianresponse.info/en/operations/nepal/assessment-working-group)
Share Information report at nepalassessments@humanitarianresponse.info

Map produced on: 10 May 2015

Figure 1. Earthquake causalities. Source: https://www.humanitarianresponse.info/en/system/files/documents/files/150510_government_casualities_and_fully_partially_damanged_buildings.pdf

To achieve this, a large group of graduate and post-graduate students participated in different parts of the desk review process (hereafter 'collaborators'). Collaboration took place over a shared Google Drive, using Google Documents and Spreadsheets. The desk review involved several steps; an overview is provided in **Box 1** below.

Box 1. Overview of Desk Review Steps

Step 1: Decisions on which searches to perform
- Peer-reviewed and grey literature
- Multiple disciplines
- Requests to experts and humanitarian agencies

Step 2: Screening of titles and abstracts

Step 3: Full-text reviews of document selected after screening

Step 4: Summarizing included documents using a standard template

Step 5: Editing summaries into a narrative report

In a first step, decisions were made on which searches to perform. We decided to conduct searches of both peer-reviewed academic literature and the grey literature (reports published on websites and reports from humanitarian agencies) (see Table 1). For the peer-reviewed literature, we were interested in including research conducted in different disciplines, including the health and social sciences. Academic databases that were systematically searched included AnthroSource, PILOTS, PsycInfo, PubMed/Medline, and Web of Science. To access the grey literature we searched five commonly used humanitarian websites for information relevant to mental health and psychosocial well-being. In addition, we invited 13 experts working in Nepal to provide key documents of relevance to the desk review, and asked members of the Inter-Agency Standing Committee Reference Group for MHPSS to further provide relevant documents. Keeping in mind the limited time frame, we did not conduct additional searches in the reference sections of identified documents, but future iterations of this desk review may include these searches.

In the second step, results from the searches conducted were screened. On the basis of the title and abstract, the group of collaborators evaluated if the document was potentially useful for the desk review. All relevant results were saved in folders on a Google Drive. These folders were organized by database/website searched. **Table 1** provides an overview of the documents screened and included.

The third step involved deciding which documents to include on the basis of a full-text review. Documents selected for inclusion were saved in folders named after the subject headings of the table of contents in the WHO-UNHCR toolkit (Tool 9). Documents could be saved in multiple folders if they were relevant to multiple categories in the table of contents. File names were saved using a structured method (author_year_source_first title words) to avoid duplication within folders.

Table 1. Overview of the Numbers of Screened Documents and Included Documents

Source	# Screened	# Included
http://mhpss.net/resources/	57	35
http://reliefweb.int/	25	12
http://www.alnap.org/search/advanced.aspx	11	7
http://www.acaps.org/	7	5

http://newirin.irinnews.org/nepal-earthquake	30	20
PubMed	34	21
psycINFO	252	65
PILOTS	36	0
AnthroSource	7	5
Web of Science	36	11
Expert request (12 responses)	34	32
IASC RG MHPSS request (5 responses)	34	29
Total	**563**	**242**

In the fourth step, documents were summarized using a standard template. Summaries were written by collaborators individually for each of the subject headings. This method was chosen instead of division by database or single document to avoid large duplication in writing of summaries. In the fifth step, a smaller group of authors read the summaries and edited these into the narrative sections provided in this report.

In the final step, the first draft of the desk review was sent out for peer review to all members of the Inter-Agency Standing Committee Reference Group for MHPSS in Emergencies (IASC RG MHPSS) and three peer reviewers (see acknowledgements).

2 General context

2.1 Geographical and climatic aspects

Summary Points:
- **Administratively, Nepal is organized into 5 developmental regions (far west, mid-west, west, central, and east), 14 zones, 75 districts, and 3,915 village development committees, or VDCs (rural), and 58 municipalities (urban), with VDCs consisting of between 9 – 35 wards**
- **Nepal has high geographical diversity, covering three ecological zones from almost sea level to the highest point on earth**
- **Nepal is prone to natural hazards, including earthquakes, flash floods in the monsoon period, landslides, bursting of glacial lakes, changes due to global warming, and environmental degradation**
- **Geographical and climatic features will hamper earthquake response, with Nepal having very poor road coverage**

Nepal is a landlocked country, located between China's Tibetan Autonomous Region in the north and India in the west, south, and east, with a land area of 147,181 square kilometers. From east to west the country stretches for almost 900 kilometers. Altitude in Nepal rises from nearly sea level in the south to the highest point on earth in the north over a span of 150-200 kilometers [2].
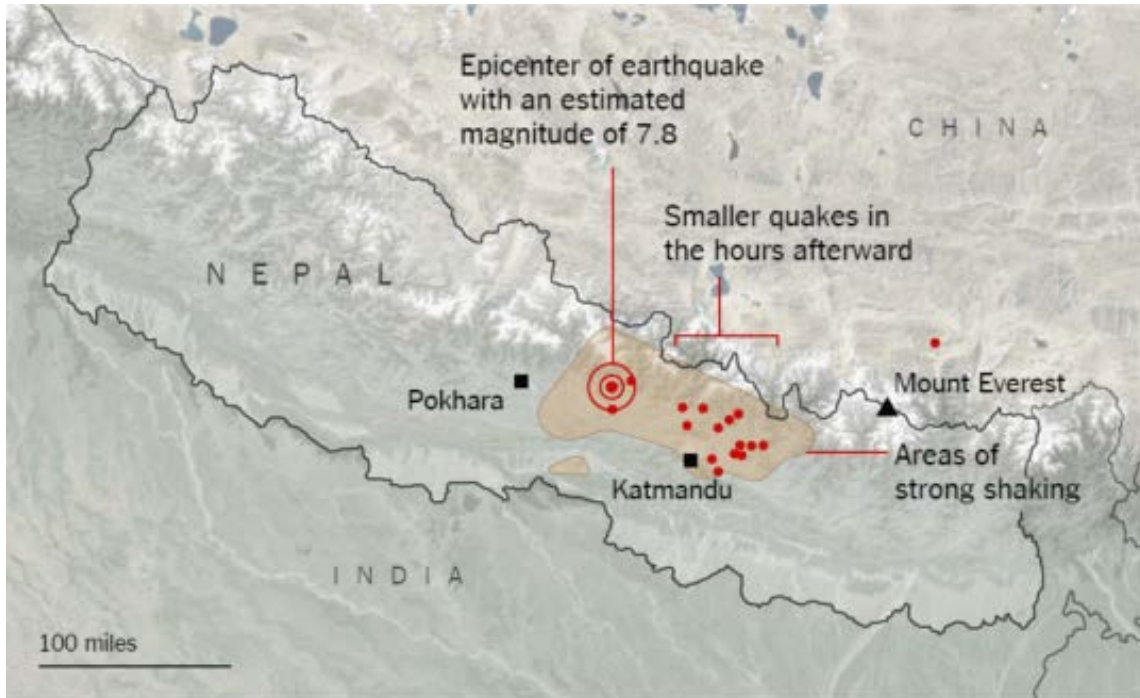
Figure 2. Geographic distribution of 25 April earthquake and immediate aftershocks.
Source: http://www.nytimes.com/2015/04/26/world/asia/nepal-earthquake-katmandu.html?_r=0

Nepal is generally divided into three types of ecological zones. A strip of relatively flat land (the *Terai* in Nepali) runs along the southern border (roughly 800 kilometers). The fertile Terai is heavily populated and farmed, has a tropical climate, and is the industrial center of the country. The middle hills (*pahar* in Nepali) cover 42% of the country, range in altitude from around 600 to 3,000 meters, and contain the two largest urban valleys, Kathmandu and Pokhara Valleys. The mountainous region (*Parbat* in Nepali) covers 35% of the country, ranges in altitude from 3,000 meters to more than 8,000 meters (8,848 meters at the highest point, Mt. Everest), and is the least populated [2]. The hills and mountains of Nepal are considered difficult topography. The Terai is characterized by more developed transportation infrastructure and easy accessibility, developed communication facilities, and better market infrastructure than the hill and mountain regions [3].

Administratively, Nepal is divided into 5 developmental regions (far west, mid-west, west, central, and east), 14 zones, and 75 districts. Districts in turn are divided into Village Development Committees (VDCs) (3,915 in rural areas) and municipalities (58 in urban areas) [2]. VDCs are further divided into between 9 and 35 wards. Districts that have been heavily affected by the earthquake are located in the western, central, and eastern regions. The country's topography and weather conditions, combined with a poor road infrastructure, make access to many parts of the affected areas highly challenging [4]. Between 1995 and 2002, the total road network increased at 6.7% a year, from about 11,000km to 17,000km with district and rural roads experiencing the largest expansion. Nine out of 75 districts in Nepal still lack access to roads [5].

Figure 3. Administrative divisions of Nepal. Source: http://adrmidia.com/jodo/tag/districts-of-nrpal

Nepal is prone to a number of natural hazards, including earthquakes. The Kathmandu valley is located in one of the most seismically active areas in the world. Earthquakes in 1934 and 1988 killed more than 8,500 and 721 people, respectively [6]. The April 25th and May 12th earthquakes were caused by 'thrust faulting', a type of break in the earth's crust in which a lower rock layer pushes up a higher layer. This occurred on or near the main frontal thrust where the India tectonic plate is moving under the Eurasia plate. At the location of the earthquake, the India plate is converging with Eurasia at a rate of 45mm per year toward the north-northeast. This movement is driving the uplift of the Himalayan mountain range [7]. Significantly, building codes in Nepal are considered insufficient for earthquake resilience and most homes are built by owners and do not conform to building codes and regulations. Despite being poorly constructed, schools and health centers are still considered evacuation centers. Settlements built on old landslides are especially disaster-prone.

Besides earthquakes, natural hazards in Nepal include flash floods, glacial lake outburst floods, landslides, fires, hailstorms, and droughts. A report on global disaster risk ranks Nepal 11th in the world in terms of vulnerability to earthquakes and 30th in terms of water-induced disasters. This risk is expected to increase with the impact of global warming [8]. Between 1975 and 2006, Nepal's temperature increased by 1.8 °C and the average temperature rise recorded was 0.06 °C per year (8), with the increase in temperature higher in the mountain regions than the Terai [5]. In the wake of the earthquake, landslides have been reported, which may increase in the coming monsoon season [9].

Nepal is a hotspot for flash flooding, which typically occur as a result of thunderstorms. The onset can occur before the end of heavy rains, and there is often little time between the detection of a flash flood and the arrival of the flood crest, requiring swift action to protect life and property [10]. In August 2008, the Saptakoshi or Koshi River, one of the largest rivers in Nepal, flooded due to heavy monsoon rains [11] (see section 4.1).

Nepal is also a hotspot for environmental degradation, which is the reduced capacity of the environment to meet social and ecological needs. Sources of degradation include: land misuse, soil loss,

desertification, wild fires, loss of biodiversity, deforestation, mangrove destruction, land, water, and air pollution, climate change, sea level rise, and ozone depletion [10].

Climate change is another major factor in Nepal's vulnerability to disasters. Retreatment of glaciers in the Himalayas has accelerated in recent years, which is associated with bursting of glacial lakes. With population increases in areas surrounding glacial lakes, these present significant risks. In Nepal, one outburst flood on average has occurred every 3 years since the 1960s. There is significant danger of catastrophic flooding from moraine-dammed glacial lakes (a dominant type of glacial lake in the Himalayas) due to slope failure and slumping. Such events often result in damage to downstream communities, natural resources, and physical infrastructure [12].

Another geographical feature that will impact the humanitarian response is the monsoon season, a period of heavy rainfall during the summer. Kathmandu Valley sits at an altitude of 1,210 meters. For most of the year, the valley has a mild climate and temperatures range from 19-27 °C, with occasional bursts of rain in the spring. May and June are often hot and humid until the monsoon begins. Monsoon rains are expected in the weeks following the earthquake [9]. Eighty percent of the annual mean precipitation of 1.530 meters is received during the summer monsoon period from June to September [5]. Monsoons are associated with landslides, which have already heavily impacted populations and humanitarian assistance in earthquake-affected areas.

2.2 Demographic aspects

Summary Points:
- **Nepal has a young population, mainly living in rural areas**
- **Despite its relatively small size, there are over 60 different ethnic groups speaking more than 35 languages**
- **Officially the caste system is forbidden, but practically the caste system influences daily life to a great extent**
- **Groups at potentially increased vulnerability may include children, women, low-caste groups, people with disabilities, people affected by political violence, and sexual and gender minorities**

The 2011 census recorded 26,494,504 persons residing in Nepal and an estimated growth rate of 1.35% since 2001 [13] [14]. Nepal is a young and overwhelmingly rural nation [13]. Forty-eight percent of the population in Nepal is 19 years of age or younger and there are 94.2 males per 100 females [14, 15]. Approximately 10-20% of the population resides in urban areas [9, 16]. The urban population has been growing at an average rate of 6% per year over the past 20 years [10]. The central development region of Nepal comprises the largest proportion of the population (36%) [14].

Nepal is home to over 60 recognized ethnic groups collectively speaking over 35 languages [17]. Although it is officially forbidden, the caste system remains a central system of demographic classification in Nepal. The caste system is intricate, contested, dynamic, and consists of many sub-groups – a short description cannot do justice to its complexities. However, a commonly-used division is four castes, which overlap with ethnicity. In the historical law code of the country, the Muluki Ain, the caste system was the major determinant of an individual's identity, social status and life opportunities [18]. In some traditional interpretations, the castes are separate and distinct so that, for example, water must not be shared with anyone belonging to a different, lower caste [19].

The high-caste groups are the Bahun (12.2%; historically priests) and Chhetri (16.6%; historically warriors and rulers). Bahun and Chhetri are often seen as belonging to the same ethnic group, Pahari,

who speak Nepali and are more commonly inhabitants in middle hill areas. High-caste groups are over-represented in politics, education, and business [20, 21].

The third caste is sometimes reserved for 'indigenous ethnicities,' or Janajati, and includes groups traditionally associated with areas in the middle hills (e.g., Tamang, Rai, Limbu, Gurung, Magar), the Kathmandu Valley (Newar), the mountains (e.g., Sherpa), and Terai (e.g., Tharu). These ethnic groups commonly have their own languages and sometimes have their own caste systems. In other caste divisions these groups are placed outside of the caste system. Other ethnic groups living in the Terai (also called Madesh) are sometimes referred to collectively as Madeshi.

The fourth caste is the Dalit caste. Dalit, who are delegated specific functions in society, are considered "untouchable" and represent the lowest caste in the hierarchy. Dalit are the most disadvantaged caste in multiple domains of social and economic life, including the education sector [22]. However, the pattern of caste-based discrimination is complex, and there is evidence that some Dalit who have accessed formal education experience improved economic status and faced less discrimination [19, 22]. Historical practices of limiting Dalit' ability to hold livestock and access to resources have led to perpetual patterns of intergenerational poverty. Economic disparities may also underlie differences in psychological morbidity across caste groups. For example, one study found that economic differences between Dalit and other groups were the most significant mediators of caste differences in psychological morbidity [18].

In the context of the Maoist insurgency, caste and ethnicity were important factors, and ethnicity-based division of administrative units remains a contested issue in the development of a new constitution. It is also important to note that the caste system's influence has been lessening in urban areas. One of the impacts of the Maoist insurgency has been a greater awareness of caste discrimination and a demand for rights. There has been a proliferation of Dalit organizations, social mobility has increased, and caste-based discrimination has decreased.

A total of 10 religions are included in the census, with the most prevalent being Hinduism (81.3%) and Buddhism (9.0%) [14, 23]. With regard to language, the national and most widely spoken language is Nepali (44.6%), followed by Maithili (11.7%), Bhojpuri (6.0%), Tharu (5.8%), Tamang (5.1%), Newar (3.2%), Bajjika (3.0%), Magar (3.0%), Doteli (3.0%), and Urdu (2.6%) [14].

The size of an average household in Nepal is 4.9 persons [14], with approximately 26% of households having a female head [13] . Additionally, 25% of households report having at least one member of their household being absent or living out of the country [14], primarily due to migration for work [24]. In 2010, 78.8% of individuals 15 years of age and older were employed [24].

Potentially vulnerable groups
Certain sub-groups of the population in Nepal have been identified as at increased vulnerability. These groups may have special protection needs in the wake of the disaster and during the reconstruction process.

Children: Youth make up a large proportion (48%) of the population in Nepal [15]. Certain groups of children are expected to be particularly vulnerable to the effects of disaster including former child soldiers, children migrating to urban environments, street youth and domestic workers [10, 15, 21, 25]. With regard to former child soldiers, approximately 9,000 members of the People's Liberation Army (the armed branch of the Communist Party of Nepal - Maoist) and ten percent of the Royal Nepal Army were under age 18, many of whom were also female [21, 25] (see section 2.3). Children migrating to urban environments are also vulnerable because they often are not registered for education or health care [10]. Children living and working on the streets in low-income settlements, often within urban

regions, are at increased vulnerability given their unstable living and work environment [15]. Lastly, children who are domestic workers are at heightened vulnerability to abuse and exploitation [25].

Females: Although variation exists across sub-groups, gender-based discrimination is prevalent in Nepal, with most ethnic groups having a patriarchal value system to a greater or lesser degree [26]. Several studies have found that females are at higher risk for mental health problems and suicide (see section 2.7). Particularly vulnerable groups of females are sex workers and trafficked women [27].

Low-Caste Groups: Caste-based discrimination has been identified as an important factor to address during disaster response [28]. Members of the Dalit caste generally have minimal access to education, are worse off financially, and marry earlier. They also receive less (psychological and social) support from teachers and political parties, which may have important implications during a disaster [9, 21]. Caste-based discrimination has a long-standing history with respect to conflict and disaster in Nepal [29].

People with Disabilities: About 2% of the population has some kind of disability, 1/3 of which have physical disabilities, followed by vision impairment (18.5%), hearing impairment (15.4%), speech problems (11.5%), multiple disabilities (7.5%), mental disabilities (6%), intellectual disabilities (2.9%), and combined deafness and blindness (1.8%) [14]. Disability may increase vulnerability by affecting mobility, communication, and access to humanitarian aid and other resources [14]

Populations Affected by Political Violence:
- *Torture survivors:* Nepali non-refugee torture survivors have a high prevalence of psychiatric symptoms and associated disability (see below, section 3.1.1).
- *Internally Displaced Persons (IDPs):* IDPs have a high prevalence of psychiatric symptoms and associated disability.
- *Refugees:* From the early 1990s to 2007, around 110,000 ethnic Nepali refugees from Bhutan were residing in camps in eastern Nepal [30, 31]. However, only a small minority of Bhutanese refugees remain in Nepal today, with third-country resettlement currently in progress. Approximately 20,000 Tibetan refugees are also residing in settlements throughout Nepal and are vulnerable to the effects of the disaster [32].
- *Families of the disappeared:* During the Maoist insurgency, both armed forces and insurgents contributed to the disappearance of people. Currently, more than 1,300 families are still unsure about the fate of loved ones.

Sexual and Gender Minorities: three genders have been legalized in Nepal in some way since 2007; people may carry documents that read male, female, or other. Transgender people often carry documents that do not match their identity and appearance. Same-sex couples often are not officially registered as cohabitating, and therefore may struggle to access resources if official registers are used to determine eligibility. Previous research has drawn attention to a number of ways in which these factors may disadvantage sexual and gender minorities in humanitarian situations [33].

2.3 Historical aspects

Summary Points:
- **Nepal was established through unification of separate kingdoms through a military campaign by the Shah family from the mid-18th century**
- **A popular uprising helped re-establish multi-party democracy in 1990 under a constitutional monarchy**

- **A multitude of factors (including unequal development, gender, caste, and rural-urban disparities, as well as political instability) contributed to a Maoist armed insurgency between 1996-2006**
- **The conflict was ended through a peace agreement between the political parties and the Maoists, removing the then King Gyanendra from power**
- **Over the past years the new federal democratic republic has been working on a new constitution through a constituent assembly**

An overview of key historical events is provided in **Table 2**.

Table 2. Overview of Political History in Nepal (adapted from [34]**)**

Period	Events
1740-1768/1769	Prithvi Narayan Shah conquers disparate fiefdoms, establishing the kingdom of Nepal.
1846–1950	Rana family seizes power and takes on an autocratic hereditary prime minister role with King from Shah family as figurehead.
1950–1951	Armed insurrection by the Nepali Congress with support from the fled King Tribhuvan Shah leads to peace negotiations which end Rana autocracy.
1950	China occupies Tibet, which starts a currently ongoing flow of Tibetan refugees into Nepal and India.
1960–1990	King Mahendra seizes power and introduces the Panchayat system in 1962, which bans political parties.
1985–1990	Government in Bhutan introduces a series of policies regarding citizenship, dress code and language favoring Drukpa ethnic group over other ethnicities. Mass demonstrations, violent struggle and subsequent government crackdown leads to exodus of Nepali-speaking Bhutanese to southern Nepal.
1990–1996	Political parties unite and start the first People's Movement (Jana Andolan). Start of politically unstable multi-party democracy.
1996–2006	On February 13th, 1996 the Communist Party of Nepal (Maoist) (or CPN(M) – now Unified CPN(M)) attacks police posts and a state-owned agricultural development bank in five districts, starting the "People's War".
2001	Majority of royal family killed in a massacre. Official reports blame Crown Prince Dipendra; however, public suspicion of conspiracy by King Gyanendra is widespread. Government imposes a State of Emergency in November, after a series of Maoist attacks on police and army targets. Army deployed systematically for first time and armed violence intensifies greatly.
2002–2005	In October 2002, King Gyanendra dismisses parliament. Maoists control large parts of countryside and have set up parallel administrations in a number of districts. King Gyanendra assumes direct control over the state.
2006–2008	Coordinated protests by political parties and Maoists in April 2006 (Jana Andolan II). Political parties and the CPN(M) broker fragile peace agreement, form an interim government and declare an interim constitution, which designates Nepal as a federal republic. Elections for a constituent assembly take place in April 2008 and CPN(M) becomes largest party.
2009-2015	Political instability with rapid succession of governments. No agreement on a new constitution. CPN(M) faces big losses in a second election in 2013.

2.4 Political aspects

Summary Points:
- **Since the end of the conflict, writing of a new constitution has not been concluded successfully and political instability remains – but Nepal is now a federal republic**
- **Higher caste groups are demographically over-represented in parliamentary parties**

The first multi-party election in Nepal was held in 1959, but King Mahendra quickly disbanded this Parliament. The most recent constitution has been in place since 1991. This was followed by a highly unstable series of successive governments led by political parties in a constitutional monarchy. Between 1996 and 2006 Maoist rebels led an insurgency with the political aims of reducing caste and gender inequalities and establishing a communist republic. During the People's War, political power remained in the hands of political parties, with control over the army in the hands of the King. In 2005, King Gyanendra disbanded Parliament citing incompetency of mainstream political parties to defeat Maoist rebels. Subsequently, the political parties and Maoist rebels joined hands and started a second People's Movement. This led to a comprehensive peace agreement in 2006, in which Maoist rebels were demobilized. This peace agreement stripped the King of his powers and established Nepal as a federal democratic republic. It also started the process of writing a new constitution through a constituent assembly, one of the major continued demands by the Maoists; the assembly has not yet produced an agreed constitution. Key obstacles for a new constitution that remain in 2015 include the definition of federalism (provinces based on economic geography or demarked by identity), secularism (retaining Nepal as a secular state versus re-defining it as Hindu versus defining it as religiously plural) and electoral process (first-past-the-post or proportional representation).

Large parties in Nepal's legislative branch are the CPN(M) (now Unified CPN(M)), the Nepali Congress (NC), and the United Marxists-Leninists (UML). The CPN(M) won the most seats in the first post-conflict election of 2008, CPN(M). In the election of 2013, the Maoists suffered a large defeat. In February 2014, Sushil Koirala from the NC was elected Prime Minster and the government continues to be tasked with writing a new constitution [35].

Today, there are decentralized powers at the regional, district, municipal, and village level in Nepal. There is a lack of coordinating agencies that facilitate communication and alignment between these local powers [10]. Certain backgrounds and characteristics are over-represented in government, including persons who identify agriculture as their parent's major occupation (95%), males (70-90%), Hindus (96-99%), and members of the Bahun caste (53-75%). Dalit and other lower castes are underrepresented in government [36].

2.5 Religious aspects

Summary Points:
- **People in Nepal mainly adhere to Hinduism (81%) and Buddhism (9%)**
- **For most people in Nepal, religion forms a critical aspect of identity, family and work life, and socialization of children**
- **Both Hinduism and Buddhism are associated with complex and highly developed systems of healing**

Nepal's dominant religions are Hinduism and Buddhism [23]. The 2011 census states that Hindus constitute 81.3 percent, Buddhists 9 percent, and Muslims (the majority of whom are Sunni) 4.4 percent. Groups constituting less than 5 percent of the population include Kirati (an indigenous religion), Christians and other religions such as Bon. However, members of minority religious groups frequently state that their numbers are significantly undercounted [14]. According to a study comparing children from the Tamang ethnic group (Tibetan Buddhist) and Chhetri-Bahun (Hindu), the two dominant religions share the central belief that the self is an illusion and liberation from material bondage associated with this illusion takes many lifetimes, and results in eternal peace [37]. However, differences can be found in how one achieves spiritual merit and thereby advances towards this goal. Buddhism values social equality. The religion is often described as egalitarian and tolerant and worry is thought to disturb one's "sem" (or heart-mind). For example, Cole and Tamang describe a family

sharing wealth to prevent social imbalance and avoid strong emotion [37]. Hinduism emphasizes spiritual purity, social order, and disciplined action, as reflected in the caste system.

Religious beliefs thus influence the way emotions are experienced and expressed, and religious affiliation has been found to be associated with various psychosocial factors. Among children aged 6-9 years old, Cole and Tamang found that Chhetri-Bahun Hindu children are more likely than Tamang Buddhist children to report emotion (including anger) as well as a wish to mask negative emotion from others [37]. The authors speculate that this difference may be related to the Hindu cultural goal of being self-conscious about one's behavior in relation to others. Other research has shown that among a sample of child soldiers, living in high caste Hindu communities predicted a lack of reintegration supports and greater depression and PTSD [38]. The lack of reintegration support in high caste groups may stem from cultural factors linked with the enforcement of caste behaviors that promote discrimination against low castes and women [38].

Religious beliefs and practices are also central to traditional healing systems in Nepal. Both Hinduism and Buddhism are associated with complex and highly developed traditional medical systems (Ayurveda and Tibetan medicine, respectively), both building on older systems of animistic beliefs and practices which continue to influence approaches to retaining and recovering wellbeing see sections 2.9.2 and 3.1.9.

2.6 Economic aspects

Summary Points:
- **Nepal is classified as a low-income country with low levels of development. In 2014, economic growth relative to GDP was 4.5%**
- **Nepal's economy revolves strongly around agriculture, which is highly weather - dependent and which has not grown greatly over the last years**
- **Remittances from migrant workers in Gulf countries form almost a third of the country's income**

In 2013, Nepal was characterized as "low development" on the Human Development Index and was classified by the World Bank as a low-income country. In 2014, after a difficult 2013 financial year, Nepal's economy was estimated to have grown by 4.5%. Inflation remains high at around 10% in 2014, mainly driven by increased food prices. Although the government budget has increased due to improved revenue mobilization and remittances sent in from labor migration outside Nepal, the government has not been able to translate this into increased budget execution [39].

With 83% of the population living in rural areas [10], Nepal's economy revolves strongly around agriculture. Agricultural performance shows substantial spatial variation – across both ecological zones and development regions. Growth is generally higher in the agriculturally rich regions of *Terai*, while it is significantly lower in the hill and mountain areas, especially in the Western, Mid-Western and Far-Western regions. The open border with India is an important factor in ensuring adequate supplies of food and farm inputs in Nepal.

It is estimated that only a third of Nepal's agricultural land is irrigated; therefore, the annual national grain production depends upon favorable weather conditions including timely and sufficient rainfall during the monsoon period. The growth in agricultural output has declined over the years, and growth in irrigation has been slow. The bulk of food grains (e.g., rice) are produced in the *Terai* while in the middle hills, the predominant crop is maize. In contrast with the *Terai*, the middle hills and mountains of Nepal are mostly food-deficient. Food must therefore be transported from the *Terai* to markets in

the hills and mountains by truck where roads are available, by planes to places with landing strips, or by porters or mule pack animals.

Market infrastructure is least developed in the mountain districts, where it usually takes one day to reach the nearest market. To reach the nearest road-head market requires, on average, four to five days' walk. In comparison, the nearest market in the *Terai* is an average distance of two-hour walk, and this is often a road-head market. Increased distance to markets is strongly correlated with higher average food prices.

The planting season for rice traditionally starts with the monsoon on *Asar Pandra* (15th in the month of Asar). If rice is not planted as a consequence of the earthquakes, this may threaten food security.

Recent declining agricultural production has depressed rural economies and increased food insecurity and urban migration in Nepal. In addition, an important recent economic movement has been labor migration out of Nepal into the Arab Gulf states. Remittances currently make up 28.8% of the economy in Nepal (http://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS).

Overall, economic growth has been uneven and economic disparities have been cited as an important factor in the Maoist People's War. Land reform was one of the main demands at the origin of civil unrest [40]. The Nepali economy has been reported to favor the urban, the rural rich, and a handful of elites. Economic and political power are centralized in the capital [41]. At the end of the armed conflict in 2006, the Demographic and Health Survey estimated that the highest prevalence of severe acute malnutrition (SAM) was found in the Terai, and in the Mid- and Far-Western Region. Nevertheless, the Maoist insurgency was reported to have furthered inequality between rural and urban areas. As a result of the war, economic relations and infrastructure development were militarized, access to health care and education were limited to those who could pay out-of-pocket, and tourism, the country's third largest industry, decreased dramatically [34].

The economic situation in Nepal has been associated with increased vulnerability of various groups, including populations living in urban slums, populations lower in the caste hierarchy, and landless populations. Around 60% of the total urban population live in slum conditions, including many of those who are traditional residents of the valley [10].

2.7 Gender and family aspects

Summary Points:
- **Extended families comprising three generations (adult parents, sons and their wives, and their children) are the traditional structure throughout Nepal; nuclear families are increasingly common in Kathmandu and urban areas**
- **Labor migration of men to Gulf countries has reshaped demographics of rural Nepal with many men aged 20-40 years not living in Nepal with their families**
- **Nepal ranks 121st out of 136 counties on the Global Gender Gap Index indicating a high disparity between women and men in regards to economics, education, and human rights protection**
- **One third of Nepali women report having experienced interpersonal violence**
- **25% of women have their first child before 18 years of age, and 50% have their first child before 20 years of age**
- **Girls and women report higher levels of depression, anxiety, and posttraumatic stress disorder compared to boys and men; women report lower social support compared to men**

Overview

Gender roles and family structures in Nepal are influenced by religion, economics, caste and ethnic heritage, media and entertainment, education, and globalization. There is no single typical family structure or gender norm. For most practices mentioned below, there are examples of ethnic groups who do not engage in the traditional structure, and norms and behaviors are also rapidly changing in the context of increased education for girls and globalization. However, certain practices and structures related to gender and family have repeatedly been shown to influence mental health and psychosocial support in Nepal.

Family Structure

In Nepal, the traditional family structure is extended, also referred to as joint families (*sanyukta pariwaar*). Joint families continue to be the most common family structure throughout Nepal, with nuclear families most common in Kathmandu and other urban areas. However, this is rapidly changing, with an increasing number of families living separate from extended family as well as increasing numbers of female-headed households as men migrate for labor.

In Nepal, extended families across most ethnic groups are patrilocal and female exogenous, meaning that sons stay with their parents while daughters get married off to live with other families [37, 42]. One house may be divided into three or four sections, with the elder parents living with one son and his wife and children, and two or three other sons and their wives living in adjacent parts of the house. The family members in joint households generally work, eat, and remain together, and young children are provided with multiple caretakers [37]

Polygamy has been practiced traditionally across ethnic and religious groups in Nepal. Though the practice is now illegal, in some rural areas a man may take on additional wives without undergoing legal procedures to divorce prior wives. Polyandry (one woman have multiple husbands) was historically acceptable among some Tibeto-Burman speaking ethnic groups in the Himalayan regions, but is thought to no longer be practiced.

Currently, there is an increase in female-led households in Nepal as a result of the large migration surge of Nepali males to India, Gulf countries, and Malaysia for work. In many communities, there is a limited number of working-age men (20-40 years of age) because of out-migration. This has increased the workload of women, as many women are now responsible for income, agriculture, and manual labor in addition to household work.

Gender

Within the patriarchal family structure, men are traditionally attributed greater importance, economic and religious value than females. Women and girls are valued for care giving [43]. According to some interpretations of traditional Hindu religious text, a woman's destiny is to bear children, especially a son, who will be able to carry out the funeral rites essential to the maintenance of the family lineage [44]. Having a son is linked with accumulation of wealth as sons are expected to provide financial assistance for parents later in life [45]. Sons generally remain in the parents' household and bring in extra resources through their bride's labor and dowry. Daughters, on the other hand, may be seen as a financial burden; a girl generally leaves her parents' home to join her husband's family at the time of marriage, and the bride's family must pay a dowry [46].

Differences in gender relations exist across sub-groups, with higher caste Hindus following a more rigid hierarchal family system compared to Dalit and ethnic groups, such Tibeto-Burman language speaking groups [47]. Pre-existing differences in the patterning of gender relations have long existed among the ethnic groups who make up a substantial proportion of the population [43, 48].

Family structure in Nepal contributes to gender disparities in economic resources. When a father dies, his land and property are typically divided among his sons. Unmarried daughters traditionally had no right to their father's property and wealth. Until the end of the People's War in 2006, daughters were not legally entitled to inherit property, except in rare cases of some unmarried women over the age of 35 years. In extreme cases, the perceived economic burden of girls may engender situations where fathers decide to sell their daughters to traffickers, who sell girls into commercial sex institutions in India.

Given these practices, Nepal ranks 121st of 136 countries on the Global Gender Gap Index (2013), a composite measure of female to male attainment [49]. Gender inequality is believed to have contributed to the armed conflict (30% of the Maoist political wing and 17% of the Maoist military were comprised of women) [43]. At the conclusion of the war, Nepal's Gender-related Development Index (GDI) score, a measure of equality between women and men, was 0.545, which was among the lowest in the world [50]. Throughout Nepal, women experience a higher workload, lower literacy, and shorter average lifespan than men, and 31% of women report experiencing inter-personal violence [51]. Recent legislation was designed to protect women by raising the legal age of marriage, improving inheritance rights, and prohibiting marital rape and sexual harassment; however, these laws are poorly understood and inconsistently enforced [52].

Gender differences in cultural practices also influence child survival. Higher rates of malnutrition, reduced access to health care, and excess mortality rates for infant girls relative to boys have been documented in South Asia [53-55]. This finding is mediated by longer delays in seeking medical attention for girls compared to boys [56-58]. Health differences persist throughout life with female members of households having less access to protein and sources of micronutrients, and thus being at a greater risk for malnutrition and micronutrient deficiency [59]. Traditionally, women cannot eat the food they cook until others have eaten and must leave the house when menstruating and giving birth [44].

Child marriage, defined as marriage before the age of 18 years, has numerous negative consequences [46]. In South Asia, marriage under the age of 20 is associated with higher levels of infant mortality, maternal mortality, HIV and other STDs, mental illness, and suicidality. Girls who marry before 14 years of age also have five times higher risk of experiencing spousal violence and three times greater chance of their spouse being more than 10 years older, compared with women who marry at 20 years of age or older. Moreover, child marriage is also associated with greater risk of harmful gender beliefs; for example, girls who marry before 14 years of age are three times more likely to display a preference for sons over daughters, compared to women who marry after 20 years of age. The children of girls who marry below the age of 14 years have six times greater risk of neonatal mortality, five times greater risk of post-neonatal infant mortality, and 85 times greater risk of child mortality before the age of five.

Although marital and reproductive practices in Nepal are changing, women on average marry at an early age and are in their teens or early twenties when they become mothers. Twenty-five percent of women in Nepal have their first child before the age of 18 and 50% before the age of 20 [60]. In addition to traditional and cultural practices, the Maoist conflict led to an increase in child marriage because families were scared of their daughters being taken away by the Maoists and thus married them early [61].

After marriage, girls typically drop out of school and thus their opportunities for employment and independence are limited. New wives often suffer from their low status in their in-laws' family, in which caste and dowry are extremely important, communication can be hostile or abusive, and traditions are firmly enforced regardless of health risk [47]. A bride's relationship with her in-laws becomes very important, as they make key decisions concerning the woman's healthcare, childbearing, and social

support [62]. The amount of support a woman receives from her husband and in-laws plays a major role in determining child health outcomes [63].

Gender-based violence (GBV) is another threat to women's well-being [64]. Eighty percent of women surveyed reported that they were survivors of GBV. This violence comes in many forms including abandonment, abduction, and sexual assault. Those who perpetrate the violence are not always held accountable, especially if they are in a position of power, such as a policeman, or if they are affiliated with an influential political party. The reported GBV rate is higher among certain vulnerable groups such as Dalit women, widows, the disabled, ex-child soldiers, and women living with HIV/AIDS [18, 38, 65, 66].

Girls' education has been identified as a key component of improving health outcomes, lowering fertility rates, and postponing marriage until adulthood in South Asia [67-69]. Girls married before the age of 14 years old are 11 times more likely to have no formal education when compared with women who marry at 20 years of age or older [46]. Schooling may affect maternal outlooks and foster skills such as mastery of communications skills needed for navigating health care systems, political processes, and other bureaucracies [67], and possibly communication with male partners. Empirical studies have demonstrated that mothers are better able to independently bring a child for healthcare if they are literate [67].

Gender, Family Structure, and Mental Health
Across studies in Nepal, gender-based risk factors and social exclusion have been linked to women experiencing more psychological distress and mental health problems like PTSD and depression than men [19, 70, 71]. For example, there is a significant interaction between gender and child soldier status: girl soldiers had six times greater risk of having PTSD compared to never conscripted girls, whereas boy soldiers had nearly three times greater risk of having PTSD compared with never conscripted boys [72].

Gendered ways of coping have also been studied in Nepal. Men endorse more access to social support than women. This has been seen to improve mental health outcomes for men compared to women [71]. However, men are more likely than women to engage in harmful alcohol and drug use. One study concluded that women are taught to suppress anger and are raised to be passive and resign, rather than fight, when faced with difficulties in their lives [73]. Despite this, some major nongovernmental and civil society organizations led by women are championing the advancement of women in Nepal.

Family structure may also affect the mental health status of the people in Nepal. In two separate studies, it was found that people living in extended families experienced more depression as a result of stricter traditional rituals, gender discrimination, and women having to fulfill more social expectations, roles, and relationships within the household [42, 74]. Similar findings were identified for children, for whom living in extended families was associated with greater risk of mental health and psychosocial problems [74].

2.8 Cultural aspects

Summary Points
- **Nepal is culturally diverse with 125 caste and ethnic groups, 10 religions, and 60 language groups throughout the country; each region and group has different traditions, taboos, and rituals**

- **Social classes are rooted in the caste system, which divides society based on Hindu concepts of ritual purity; low caste groups are formally excluded from religious sites and informally excluded from social, economic, and political positions**
- **Most religious, caste, and ethnic groups are historically rooted in patriarchal traditions in which women have less access to social, economic, and political resources**
- **Religious sites are important sources of connection to the religious and ancestral world; damage to sites of religious practice may disrupt traditional healing practices**

Overview

Nepal, though a small country, is considered to be a country of great cultural richness and diversity. In a national census conducted in 2011, 125 caste and ethnic groups and 10 different religions were reported in Nepal [60]. For detailed information on the caste system see section 2.2 Demographics. For cultural aspects related to gender see section 2.7 Gender and Family Aspects. For cultural aspects related to understandings of mental health see sections 3.1.2, 3.1.3, and 3.1.4. For cultural aspects related to help seeking section 3.1.10 Help Seeking Patterns.

Religious Sites

In considering the rebuilding of homes and community dwellings damaged by the earthquakes (including monasteries, retreat houses, temples, *stupa*, and *mani* walls), particularly in Tibeto-Burman and culturally Tibetan regions, questions of astrological timing (more or less auspicious days for rebuilding) arise, the salvaging of physical structures that have been imbued with spiritual meaning, and the re-consecration of sacred objects may impact local people, as will efforts to address any forms of spiritual pollution (*drib*) that may have accrued as a result of the death and devastation experienced [75]. Local people may also consider it important to attend to guardian deities of place and the life forces within homes (often represented by the wooden pillars in the center of homes). In some communities, there may be concerns over the remains of dead children or placentas that have been buried in or under the house and the ways that the earthquake has caused disturbances of the dead, which may awaken or bring new forms of misfortune if not properly attended to. Some people will be concerned not only about making themselves and their personal belongings vulnerable to theft during a time of rebuilding, but also to forms of agentive gossip (*mi kha*) by having them literally and figuratively exposed to the elements. In Tibetan-speaking communities, this might manifest in concerns about *nang gyi nor,* or household wealth (statues, jewelry, etc.) being literally stolen or figuratively coveted, to deleterious psychosocial or even biophysical effect.

2.9 General health aspects

2.9.1 Mortality, threats to mortality, and common diseases

Summary Points:
- **Political violence between 1996-2006 was associated with an estimated 16,000 deaths**
- **Life expectancy in Nepal is 68 years, an average for South Asia**
- **Infant mortality and under-five mortality rates are high**
- **Important threats to mortality include malnutrition, pregnancy complications and childhood illnesses, and infectious diseases**
- **Suicide was the leading cause of death for women of reproductive age**

According to the 2010 figures from the Global Burden of Disease, the top 10 causes of years of life lost in Nepal are: (1) lower respiratory infections (11.7%); (2) diarrheal diseases (9.4%); (3) neonatal encephalopathy (5.7%); (4) pre-term birth (4.6%); (5) tuberculosis (4.1%); (6) ischemic heart disease

(3.8%); (7) self-harm (3.5%); (8) chronic obstructive pulmonary disease (3.5%); (9) neonatal sepsis (3.3%); and (10) stroke (2.9%). The top five of these causes have not changed since the 1990 estimates. In the top 10 there are now additionally three non-communicable diseases and self-harm [76].

Taking into account years of life lived with an illness (in addition to years of life lost due to an illness), the three most common risk factors for disease burden in Nepal are household air pollution from solid fuels, tobacco smoking, and dietary risks.
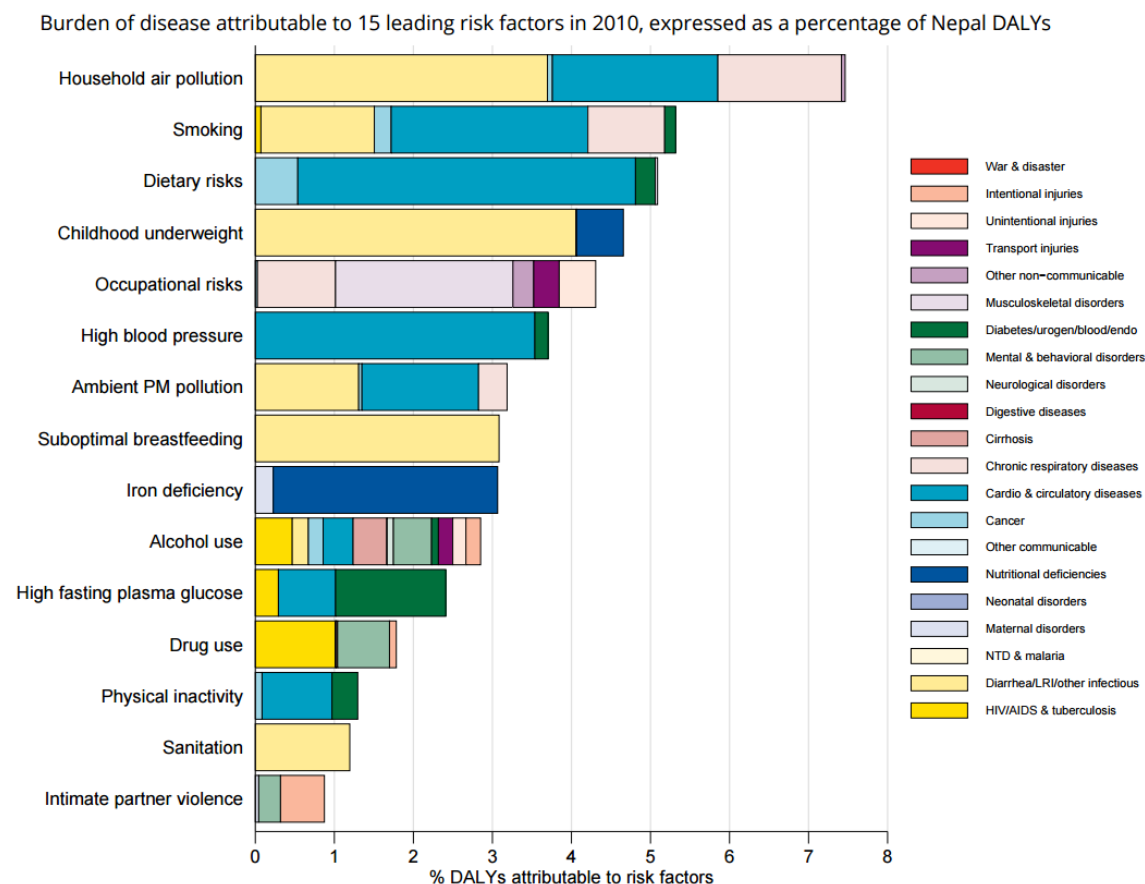

Figure 4. Disability adjusted life years attributable to environmental, behavioral, and other risk factors.

Threats to morbidity and mortality in Nepal are abundant and these threats may be exacerbated in the aftermath of the earthquakes. **Table 3** summarizes some of the leading causes of morbidity and mortality that must be considered in the earthquake response effort.

Table 3. Threats to morbidity and mortality in Nepal

Threat	Description and source
Political Violence	• During the Maoist conflict, children were often pulled out of school to protect them from forced conscription. Human rights violations against children included sexual and gender-based violence, and labor exploitation [77] • Community health posts were destroyed during the insurgency and health care workers were murdered. Additionally, 200,000 people had been displaced by 2004 and more than 70% of Nepalese prisoners stated that they were tortured [78] • Community health posts were destroyed during the uprising and health care workers were murdered. Additionally, 200,000 people had been displaced by 2004 and more than 70% of Nepali prisoners stated that they were tortured [78]
Infectious Disease	• Japanese Encephalitis (JE) is a highly-preventable disease and low-cost vaccines are available. However, 2005 saw an increase in the typical number of deaths from JE. Those who are infected but do survive the disease often live with disabilities such as paralysis and mental retardation. The Ministry of Health had planned to distribute 245,000 vaccines in 2006 [79] • Outbreaks of JE typically occur during the monsoon season due to the fact that it is a mosquito-borne disease. The majority of JE victims are from impoverished areas where they sleep in the open without nets [79] • Tuberculosis: In 2014, a total of 37,025 cases of tuberculosis were registered (51 % pulmonary tuberculosis). Most cases were reported among the middle-aged group with the highest among 15-24 year of age (20%). Childhood tuberculosis is low at 2%. Females were twice as likely to report tuberculosis [80]
Malnutrition	• 29% of children under five suffer from malnutrition [64] Chronic malnutrition complicates treatable diseases such as diarrhea, measles, and acute respiratory infection. Nutrition experts are concerned that the government and aid agencies do not make malnutrition a priority. The most affected areas by malnutrition are rural communities in the mid- and far-west mountainous regions [81] • Malnutrition is particularly dangerous for children between 6-16 months as malnutrition during this period can lead to susceptibility to disease and stress [82] • UNICEF advised the use of stunting as a measure instead of wasting. • Successful malnutrition programs are implemented as social programs that empower women to increase their decision-making in the home as well as their food access. Education around child feeding and nutrition is also an indicated intervention [82]
HIV/AIDS	• The number of adults living with HIV in Nepal is estimated to be 39,000 (prevalence of about 0.2% among those aged 15-49) and approximately 1,900 children were living with HIV in 2013 [83]. These children experience social stigma and discrimination and many orphans do not receive assistance [84] • The number of adults with AIDS in Nepal began increasing in 2005 due to Nepali migrant workers returning home to their wives with HIV and also due to sex trafficking. Aid groups estimated that AIDS-related deaths increased by 3,000 over a four-year period. UNICEF worked with local communities to provide life-skills trainings for the orphans and to "change social perceptions." [84] • The majority of those infected with HIV in Nepal are from high-risk populations such as sex workers, migrants, and people who use intravenous drugs. A study found that HIV-positive individuals were refused treatment at health clinics due to their HIV status [66]

Depression, self-harm, and suicidal ideation (SI)	• Among a sample of HIV-positive individuals, 26% met symptom criteria for depression, 43% had thought about ending their lives, and 17% had attempted suicide. Perceived family support was a strong protective factor for depression. Significant risk factors for depression/SI included higher bothersome HIV symptom count, being on antiretroviral therapy (ART) for 2 years or less, reporting any illicit drug use in the past 6 months, being unemployed, higher levels of internalized stigma towards AIDS, being underweight, and low support from family [85] • A study of self-harm found that the majority of cases (59%) occurred among those aged 15-24, and 84% were among those aged 15-34 [86] • Most cases of self-harm occurred between May and July (25) • The number of cases of self-harm appears to be increasing [86] • The most common method of self-harm is poisoning, typically with pesticides [86]
Threats to maternal health	• There are 5,000-6,000 maternal deaths/year in Nepal [87] • 71% of maternal deaths are due to direct obstetric causes and 46% are attributable to post-partum hemorrhage [87] • Many women face social and religious discrimination. Cost of services and transport challenges are also barriers to healthcare for women [87] • In 2009, the leading cause of death for women of reproductive age in Nepal was suicide [88] • 80% of women surveyed reported that they were survivors of gender-based violence; see section 2.7 [88] • 600,000 women in Nepal suffer from uterine prolapse, possibly from hard physical labor. One third of these women require surgery but, due to the fact that a number of these cases occur in rural areas, many women have to wait for mobile reproductive health teams to receive these services [88]
Threats to child health	• Rates of infant mortality are higher in Nepal than in developed countries (32 deaths/1,000 live births). Under-five mortality rates are also higher with 42 and 37 deaths for boys and girls respectively per 1,000 live births [89] • A recent study in Nepal found that infant mortality is a function of demographic, biological, environmental, and socio-economic factors. Risk factors include maternal exposure to the chemical DDT and paternal education. The authors proposed that the least expensive and most effective interventions are educating families about infant mortality and how to prevent it [90] • There are an estimated 5,000 street children in Nepal. Up to 95% of children living on the street may be addicted to sniffing glue which contains toluene. Toluene is a neurotoxin that causes hallucinations and staves off hunger pains. Inhaling these toxins can cause "neurological damage, kidney or liver failure, paralysis, and even death." Awareness programs have targeted shopkeepers, urging them not to sell carpet glue, also called dendrite, to children [91]
Access to healthcare	• In 2013, average life expectancy in Nepal was 68, which is about the average in the South Asia region [92] • Health care in Nepal makes up only 3% of the GDP and there are gross disparities between rural and urban communities. However, Nepal moved up from "low" to "medium" in the UN Human Development Index because water supply, sanitation, childhood vaccination, diagnosis and treatment of malaria, and diagnosis and treatment of tuberculosis had improved due to help from the international community [78]

Threats to LGBT health	• A survey of men who have sex with men (MSM) in Nepal found that 21% reported verbal abuse, 10% physical and sexual abuse, and 32% all three forms of abuse [93] • The depression prevalence was 61% in this population, and 47% reported suicidal ideation [93] • 78% reported non-use of condoms during anal sex in any of the last 3 sexual encounters with men, and had similar non-use condom rates for sex with woman at last encounter [93] • Psycho-education was protective for a number of outcomes including: non-use of condoms, non-participation in HIV prevention interventions, experience of physical and sexual violence, depression, and suicidal ideation [93] • Poor social support and dissatisfaction with available social support also increased risk of condom non-use [93] • The most at-risk populations (MARPs) are often neglected during humanitarian programming. When at-risk populations (such as MSM) are displaced, the risk gets higher, and connecting MARPs to HIV services is difficult in disaster settings [94]

2.9.2 Overview of structure of formal, general health system

Summary Points:
- **Before the earthquake, access to high-quality government health services in Nepal was limited, especially in rural areas – less than 3% of the government budget is spent on health care**
- **Government health care overall is free of charge, and maternal and child health care coverage has increased over the years, relying on a system of task shifting to Female Community Health Volunteers (FCHVs)**
- **Many people in Nepal use multiple systems of health care, including the biomedical (allopathic) health system, the Ayurvedic health system, and a variety of traditional and spiritual healing systems**

In the aftermath of the earthquakes, impacted areas have had limited access to health centers. Destruction of critical infrastructure has contributed to this problem. As a result, many injuries have remained untreated; however, it is expected that this issue will improve as electricity and medical supplies become available [95].

Structure of Nepal's Health System
There are three systems of healing within Nepal: (1) biomedical (allopathic), (2) traditional medical systems, including Ayurveda and Tibetan medicine, and (3) shamans (called *dhami* in many communities) and folk/religious healers (*jhankri/vaidya*). There are no clear boundaries separating the responsibilities of each health care system. Nepal's government-sponsored health care system includes 4,000 health posts or sub-health posts, 140 primary health care centers, 83 general hospitals, and three teaching hospitals [96]. See section 3.2.2 for further information on formal mental health services.

The two primary traditional medical systems present in Nepal are Ayurveda and Tibetan medicine, although Homeopathy and forms of Traditional Chinese Medicine are also prevalent. Ayurveda is supported through the state's healthcare system and through lineage-based, private, and non-institutional practitioners. Tibetan medicine—also known as "Amchi Medicine," "Himalayan Amchi Medicine," or "Sowa Rigpa" (the "science of healing")—is less formally recognized by the state but remains a frontline avenue for health care, including aspects of mental health and the promotion of collective well-being, for many of Nepal's high mountain and Tibeto-Burman communities. Individuals who are not culturally Tibetan or Tibeto-Burman also regularly seek care from *amchi* (Tibetan medicine

practitioners), particularly in the urban areas. The folk/religious healer system encompasses beliefs and practices that typically involve the supernatural realm of spirits [97]. See section 3.1.9 for more on non-allopathic systems of healing in Nepal.

Service Access and Use
An individual's decision to select a particular type of health service is influenced heavily by their social context and biomedical health care services are often sought only as a last resort [98]. For mothers and children, ease of access to a clinic facility affects the frequency with which mothers define sickness and seek treatment for their child. Government-sponsored services are free of charge; however, there is a fee for some medications. Services provided by spiritual healers are on a fee-for-service basis. Families spend approximately U.S. $1.00 per child per year for some aspect of treatment, disposing of up to 10% of their income on medical care [99].

Performance of Family Health Services
According to the Ministry of Health and Population [100], the contraceptive prevalence rate for family planning is around 45.3%. It was found that 89% of mothers received antenatal care; however, 40% of mothers did not complete all recommended follow-up antenatal care [96]. There were a total of 50,007 female community health volunteers, over 900,000 oral contraceptive pills were delivered, 9.8 million packets of condoms were delivered, and 1.6 million oral rehydration salts were delivered. Approximately 23 patients were served per clinic per month among the targeted primary health care outreach clinics. Adolescent Sexual and Reproductive Health programs were implemented in 732 health facilities in 49 districts. Disease control programs addressed malaria, kala-Azar, dengue, Japanese Encephalitis, lymphatic filariasis, zoonoses, tuberculosis, leprosy, HIV/AIDS, STIs and disaster management. Government-supported programs included health training, health education information and communication, logistics management, health laboratory services, personnel administrative management, financial management, and primary health care revitalization. In terms of child immunization, a 2014 report stated that the national immunization coverage of all antigens had increased slightly and measles cases were dramatically reduced [100].

Despite an increase in child malnutrition, the coverage of vitamin A distribution to children under 5 years of age was above 90% nationally [100]. Further, the Ministry of Health and Population (MOHP) and UNICEF have been piloting a Community Management of Acute Malnutrition (CMAM) program since 2008 [13]. The program aims to improve access to treatment for acute malnutrition among children aged 6-59 months. An evaluation of this program found that while the transition from the national to the health facility level was consistent and effective, it relied heavily on the involvement of UNICEF and Concern Worldwide [101]. The lack of investment and involvement from the Child Health Division at the Ministry of Health was a significant challenge to the program's expansion and sustainability. CMAM was found to be an effective model for the community-level identification and treatment of severe acute malnutrition.

Future Targets for Improvement by the Ministry of Health
In 2010, the Nepali government identified a number of areas for improvement within essential health care services. These included: improvements to family planning, safe motherhood, child health and child and mother nutrition, control of communicable diseases, preventing non-communicable diseases and injuries, mental health care, eye, oral, and environmental health, and curative services [96]. There were specific targets described within each of these areas. For family planning, the goal is to improve access to birth control methods, provide family planning advice to patients, and increase the availability of family planning services and supplies. Targets for safe motherhood included the scale-up of existing community services delivered by community-health volunteers, training and deployment of staff, additional birthing units, and extending safe abortion services to all districts. Strengthening immunization coverage, scaling-up community-based newborn care, expanding micronutrient and de-worming programs, piloting a community-based nutrition program, and expanding community-based

rehabilitation of acutely malnourished mothers and children are considered priority goals for maternal and child health. In order to control communicable diseases, the government aimed to introduce disease surveillance policy and to reduce three neglected tropical diseases. Goals for prevention of non-communicable diseases and injuries included encouraging the use of seatbelts and helmets, discouraging smoking, and strengthening emergency capacity near major highways. Goals for mental health included integrating mental health within existing and future health and social programs, offering programs to promote mental health, appointing a focal person for mental health within the ministry of health, and improving the quality of data collection on mental health. For eye, oral, and environmental health, the goal was to add promotional and preventative eye and oral care and to improve water, sanitation, air quality, hygiene, and waste disposal. The government of Nepal also sought to improve curative care through the extension of free services.

3. Mental health and psychosocial support context

3.1 Mental health and psychosocial problems and resources

3.1.1 Epidemiology of mental health problems in Nepal

Summary Points:
- **Research on mental health in Nepal has mainly focused on populations affected by political violence**
- **Based on figures of these populations and estimates based on international populations affected by humanitarian crises, the following may be expected: a large proportion of the population will suffer psychological distress; around 15 to 20% will have a mild or moderate mental disorder (for example, mild and moderate forms of depression and anxiety disorders, including mild and moderate PTSD); and around 3 to 4% will have severe mental disorder (for example, psychosis, severe depression, severely disabling form of anxiety disorder)**
- **In populations affected by political violence, common risk factors for mental illness include higher exposure to potentially traumatic events, female gender, lower caste, higher levels of poverty, and older age. Factors shown to be protective for mental illness include higher levels of family, peer and other social support, being married and higher levels of education.**

Mental health epidemiology has primarily focused on populations affected by political violence during the Maoist People's War (e.g. internally displaced persons [IDPs] and torture survivors) and Bhutanese refugees displaced to the southeast of Nepal. **Table 4** describes prevalence estimates and risk/protective factors for mental health problems in Nepal provided by epidemiological studies.

Table 4. Overview of Mental Health Epidemiology in Nepal

Mental health problem	Population	Prevalence	Risk factors	Protective factors
Depression	General population	30% [59] 28% [102]	Caste (Dalit) [103] *Jhamjham*, characterized by subjective numbness/tingling [59]; female, older age (>45), illiteracy, widowed/separated, poverty, ethnicity [102]	Family social support [85] among older adults, being married, financially secure, emotional support, and positive relationships with sons [42] for children, high

Mental health problem	Population	Prevalence	Risk factors	Protective factors
			gender and caste inequality [104]	female literacy rates [104]
	Bhutanese refugees	14% [105] 8% [106]	Torture [105]	
	IDPs	80% [107] 80% males/ 89% females [108]	Female, lack of education, need for medical help [109]	
	Torture survivors (help-seeking)	81% [110]		
	Former child soldiers	53% [72]	Female, exposure to bombing, younger age, physical abuse, Hindu religion, greater conflict mortality in community, fewer social supports, living with extended family [38, 72]	Ethnicity (*Janajati*), still being associated with armed group [38]
	Children not conscripted	24% [72]		
PTSD	General population	10% [70]	Female, older age (>45), illiteracy, widowed or separated, ethnicity, poverty [70]	
	Bhutanese refugees	3% [105] 4% [106]	Torture: 43% of tortured refugees reported PTSD vs. 3% among non-tortured [105]; negative coping strategies (e.g. alcohol use) [111]	Social support [111]
	IDPs	53% [107]	Financial needs, lack of medical help, lack of education, 3 or more traumas [109]	
	Torture survivors (help-seeking)	60% [110]		
	Former child soldiers	55% [72]	Female—girls may have particularly difficult time in reintegration compared to boys [38, 61]	Peer support [112]; ethnicity (*Janajati*), still being associated with armed group [38]
	Children not conscripted	20% [72]		
Anxiety	General Population	28% [59] 23% [70]	Caste (Dalit), conflict exposure [103]female, older age (>45), illiteracy, widowed or separated, poverty, ethnicity [70] among women, age, and stressful life events;	Among children, available emotional support [25]coping strategies [73]

Mental health problem	Population	Prevalence	Risk factors	Protective factors
			among men, caste, income, social support [113]	
	Bhutanese refugees	34% ([105]	Female, torture [106]); Illiteracy [107]	
	IDPs	81% ([107] 81% males/ 90% females [114]		
	Torture survivors (help-seeking)	86% [110]		
	Former child soldiers	46% [72]	Female [115]	
	Children not conscripted	38% [72]		
Suicide	General Population	8.6/100,000 persons, but rate is based on small number of studies and suicide is likely underreported [116] Cause of 16% of all deaths among women aged 15-49 [117]	Males at higher risk overall, but among females 15-49 suicide is the leading cause of death; among women, being unmarried, mental health problems, young age (<18), marriage problems, and family issues are risk factors; caste may also be a risk factor (Bahun and Newar at higher risk) [118]	

Prevalence of Psychological Distress and Mental Disorders: A previous meta-analysis of studies with conflict-affected populations globally has found that epidemiological studies with non-random populations that apply non-validated symptom checklists and with smaller populations are likely to over-estimate prevalence rates [119]. Such studies are at risk of conflating psychological distress with potential disorder. This is likely the case as well for some of the studies summarized here.

Based on global figures, the WHO estimates that in humanitarian crises:
- a large proportion of the population will suffer psychological distress
- around 15-20% will have a mild or moderate mental disorder (for example, mild and moderate forms of depression and anxiety disorders, including mild and moderate PTSD) – compared to 10% before the humanitarian crisis
- around 3-4% will have severe mental disorder (for example, psychosis, severe depression, severely disabling form of anxiety disorder) – compared to 2-3% before the humanitarian crisis

In Nepal, populations in earthquake-affected areas were recovering from impacts of the Maoist insurgency in a context of continued political instability. Pre-crisis prevalence rates may therefore be estimated at post-crisis rates, as evidenced by the study of Luitel and colleagues several years after cessation of hostilities in the Chitwan district which applied validated checklist [70].

Risk and Protective Factors
The following risk and protective factors are supported across multiple studies:

Risk factors:	Protective factors:
- Higher exposure to potentially traumatic events (particularly torture) - Being female - Lower caste - Being widowed - Poverty, lower socio-economic status - Higher age (>45) - Medical needs - Lower education levels	- Family, peer, and other social support - Being married - Higher education/literacy

3.1.2 Concepts of the self/ person

Summary Points:
- **Among Nepali groups, there are complex divisions of the mind, body, and spirit**
- **The *heart-mind* is the organ of emotion and memory; it is what makes an individual unique; heart-mind distress is socially acceptable to discuss and perceived as something that can be healed; traumatic intrusive memories related to disasters can be described as *manko ghau* (wounds/sores on the heart-mind)**
- **The *brain-mind* is the organ of cognition and social behavior which regulates behaving appropriately; brain-mind problems are stigmatized and can be seen as incurable, severe mental disorders; mental illness (*maanasik rog*) is attributed to brain-mind problems and thus highly stigmatized**
- **Other aspects of the self that are affected by mental health and psychosocial problems include one's social status, spirit/soul, physical body, family and social connections, and ancestral connections**
- **Psychological treatments and psychoeducation previously have been adapted to employ Nepali concepts of self for better communication and treatment**

Overview
There are complex divisions of the mind, body, and spirit in Nepali languages and across ethnic groups. Divisions among mind, body, and other aspects of the self impact how mental health problems are described, how help is sought, and whether mental health problems are accepted or stigmatized.

Heart-mind and Brain-mind
Given the extreme ethnic and linguistic diversity of Nepal, it would be misleading to claim that there is a single Nepali conceptual framework for mind-body relations. That said, both Sanskrit languages (e.g., Nepali, Hindi, Marathi) and Tibeto-Burman languages (e.g., Newar, Gurung, Tamang) have terms referring to concepts of *heart–mind*, *brain–mind*, and souls [120-122].

In Nepali, the main components of the self are the physical body (*jiu* or *saarir*), the heart-mind (*man*), the brain-mind (*dimaag*), the spirit (*saato*), the soul (*atma*), and one's social status (*ijjat*) [123, 124]. Other important divisions are the family (*pariwaar*), which includes the extended family, and the spiritual world, especially connections with one's ancestral deities (*kul devta*) (See **Figure 5**).
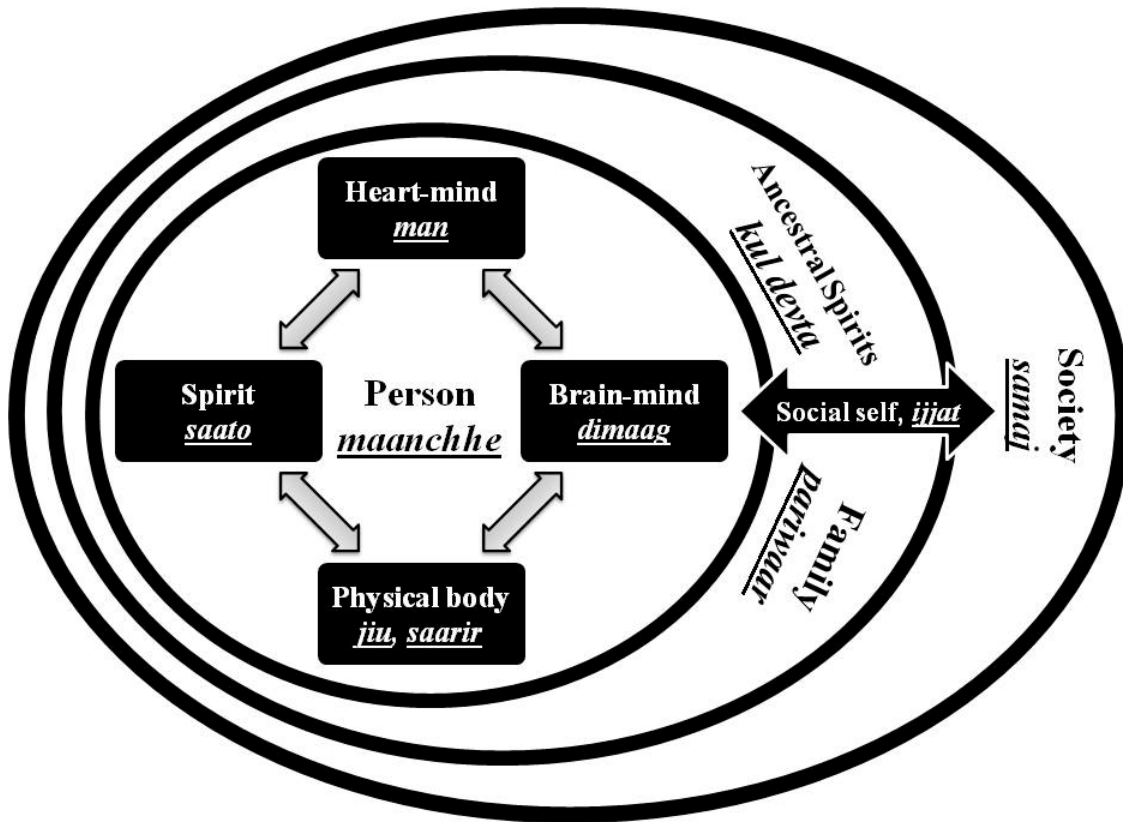
Figure 5. Divisions of the Self with Nepali Terminology (adapted from Kohrt et al. 2012 [103])

The heart-mind and brain-mind are crucial in mental health treatment. The heart-mind is the locus of memory and emotions. When one desires something, it is felt in his or her heart-mind. A bad or good memory arises from the heart-mind. Traumatic or intrusive memories often are identified as wounds or sores on the heart mind (*manko ghau*). Worries and anxiety are located in the heart-mind (e.g., *manmaa kura khelne* [thoughts playing in the heart-mind]). The heart-mind is what makes every person unique through his or her personal desires and wishes.

In contrast, the brain-mind is the organ of cognition, attention, and social regulation. The brain-mind, when working correctly, will monitor thoughts and desires from the heart-mind, then inhibit socially inappropriate desires or actions. When someone acts in a socially inappropriate manner, such as when drunk, he or she may be considered to have problems in the brain-mind. Someone who does not follow appropriate gender or caste norms may be considered to have brain-mind problems. In some context, a woman who is not subservient to a man may be accused of having a brain-mind problem. Violence and uncontrolled anger are also problems of the brain-mind. Lastly, psychosis and severe mental illness are brain-mind problems that are highly feared and stigmatized.

Social implications of heart-mind and brain-mind problems differ considerably. Heart-mind problems are considered commonplace. Individuals often will share openly about "thoughts playing in the heart-mind" or "worries in the heart-mind." However, to discuss a brain-mind problem invokes a heavy social stigma. Because of the social unpredictability associated with brain-mind problems, people with these symptoms and behavior may face social exclusion. Individuals with certain forms of brain-mind problems may be imprisoned within their homes and have severely constrained social lives. Moreover, some brain-mind problems, such as psychosis, are considered communicable by sharing a cup or a plate in some forms of traditional healing.

The stigma associated with brain-mind problems can affect the entire family. A family in which one person has a brain-mind problem may find that other family members have difficulty finding a partner for arranged marriage. Having a family member with a brain-mind problem also can lead to job loss, exclusion from cooperative work or investment activity, or rejection from public festivals.

There is a liminal state at the intersection of heart-mind and brain-mind problems. Although heart-mind problems are socially acceptable, there is also a concern that a prolonged intense heart-mind problem eventually can lead to a brain-mind problem. Child soldiers, in a multi-day workshop in which they gradually developed rapport with facilitators, eventually disclosed that they were concerned that they might be going crazy (*paagal*) and that their brain–mind was going "out" (*dimaag* out *bhayo*) because of chronic heart–mind problems [74, 125].

Social Status
The other parts of the self and relationships with others/society are associated with the heart-mind and brain-mind. The *ijjat* or social self is maintained by appropriate functioning of the brain-mind. If the brain-mind is not operating properly one suffers *bejjat* (loss of *ijjat*, or social status), which is associated with social marginalization, and in extreme cases, "social death." Historically, certain socially inappropriate acts, especially those where caste or gender norms were violated, resulted in social death in the form of banishment from a village or town [126].

Spirit
The *saato* is the spirit. It is a supernatural part of oneself connected to the supernatural world of ancestors and the spirits of places and animals. The *saato* is crucial for vitality and physical health. When one becomes frightened or possibly cursed, the spirit may be lost (*saato jaane*, "spirit goes") [120, 127]. As in many cultures with the concept of "soul loss," the loss of the spirit leads to vulnerability to other supernatural and physical maladies. A child who has lost his or her spirit may develop a life-threatening diarrheal disease, respiratory infection, or fever. Although adults do not lose their *saato* as easily as children do, they also become vulnerable to disease and generalized weakness when the *saato* is gone. Losing one's spirit has important mental health implications. A trauma or sudden fright, which intensely activates the heart-mind, can dislodge the *saato* resulting in its loss. Therefore, after a traumatic or frightening event, individuals are vulnerable to physical maladies and may be overcome with generalized weakness. Healing by shamans (*dhami-jhankri*) is used in these instances to call the *saato* back to restore health and vitality. The *atma*, often translated as "soul," has some overlap with *saato*. *Atma* is referred to by persons who have learned to read Sanskrit religious text and is thus an aspect of the self more salient to religious scholars.

Physical Body
The physical body (*jiu, saarir*) is the site of physical suffering and pain. For physical problems, individuals may use home remedies, seek the care of a *dhami-jhankri* shaman, or go to a health clinic. When the physical body is sick or in pain, this leads to worries in the heart-mind. Worries in the heart-mind may also translate into bodily pain, headaches, upset stomach (*gyastrik*), and numbness and tingling sensations (*jhamjham*) [59, 128]. Within the physical body, the brain-mind is located in the head. The location of the heart-mind may be in the region of the chest. However, interpretations of its location vary. The *saato* and *atma* do not have specific locations in the body.

Terminology in Tibeto-Burman Language-Speaking Groups and Other Ethnic Groups
In addition to Nepali-language studies of the division of self, anthropologists addressing conceptions of body, mind, and self in Nepal have focused primarily on Tibeto-Burman language-speaking groups with Buddhist and animistic traditions [120, 129-131].

The work of McHugh [121, 122] among the **Gurung** ethnic group of Nepal describes how notions of self are comprised of *plah* (souls) and *sae* (heart-mind) as well as the physical body. Fright dissociates the *plah* from the body making one susceptible to illness and eventually death. The *sae* is the seat of consciousness, memory, and desire. "The [sae (heart-mind)] brings feeling, memory, and thought together in the body. In this place at the center of the chest, life in the world penetrates and modifies the inner self" [122, p. 44-45]. The size of the *sae*, she suggests, determines how engaged the individual is with society.

Similarly, amongst the **Yolmo**, another Tibeto-Burman language-speaking group, the concept of *sem* (heart-mind) has many parallels to *sae* and other concepts of heart-mind [132]. Among the Yolmo, Desjarlais suggests, madness occurs when the brain fails to control the *sem*. Thus, madness occurs from intense emotion and desire in the heart-mind with lack of adequate control of the feeling by the brain.

Among the Lohorung **Rai** ethnic group, individual behavior issues stem from desires and actions of ancestral spirits, the *saya* (soul), and the *niwa* (mind), among other forces [129]. The *niwa* contributes to keeping the *saya* "high;" the *saya* may "fall" when the *niwa* is in pain, leading to fatigue and depression. Among the Kulung Rai ethnic group of eastern Nepal, the loss of souls also causes illness [131]. There is also believed to be a "vital force" that is present in humans from the moment of birth, and abandons them only at the moment of death. Similar to the *saya* among Gurungs, "[the vital force is] usually located in the head, the vital force is capable of movement. Unlike the souls, which can leave the body, the vital force can fluctuate only between the head and the coccyx," [131]. The fall of this force may be associated with depression, apathy, emotional fragility, and feelings of melancholy. Thus, this vital force represents a complex reality, involving body and health, relations with tradition and invisible forces, inter-personal relations, and personal dignity.

Among **Newar**, the historical inhabitants of the Kathmandu Valley, there is also a complex division of the self into mind, body, and other components [133]. For Newar, morality, desire, emotion, and thinking are located in the *nuga*. Divinity also dwells in the *nuga*. The *bibek*, an abstract entity associated with cognition and directing responsible action, filters the processing of the *nuga* before behavior is manifest. *Lajya* is the construct used to characterize an individual's ability to filter their behaviors and maintain their social status, and is the result of proper *bibek* functioning. *Lajya* can be glossed as social anxiety, embarrassment, or shame [134]. Individuals with insufficient *lajya* do not tailor their behavior to the social situation and do not act properly according to the caste hierarchy. This may lead to a loss of personal social status and the social status of the family. Parish [133] describes an individual with tarnished social status who states, "I am equal to dead."

Divisions of Self and Mental Health Care
The divisions of the self outlined above have previously been incorporated into cultural adaptations of psychological treatments for Nepali-speaking groups [103]– see **Table 5**. Divisions of the self are also important when understanding cultural concepts of suicide. A study of suicide and ethnopsychology among Bhutanese refugees (Nepali-speaking) found that 55% of family members of suicide completers felt that the suicide victim had problems in the brain-mind, 25% felt that the suicide victim had problems in the heart-mind, and 10% felt the suicide victim had social status problems [135]. These family perceptions focusing on behavioral control (brain-mind problems) more than sadness and depression (heart-mind problems) parallel epidemiological data from other studies about suicide in Asia [136].

Table 5. Components of the Self and Applications to Psychological Treatments (adapted from Kohrt et al. 2012 [103])

Component of the Self	Description	Cognitive Behavior Therapy (CBT)	Interpersonal Therapy (IPT)	Dialectical Behavior Therapy (DBT)
Heart-mind (*man*)	Organ of emotions, memories, and desires	"Feelings" in CBT should reference heart-mind processes	Heart-mind processes are examined in the context of social relationships; IPT theme of grief relates to heart-mind	Radical acceptance and change framed in heart-mind and brain-mind conflicts
Brain-mind (*dimaag*)	Organ of social responsibility and behavioral control	'Thoughts' and 'appraisals' in CBT should reference brain-mind processes	Behavioral control through the brain-mind is examined in the context of social relationships	Brain-mind and heart-mind conflicts are reduced; the brain-mind is responsible for regulating "opposite actions" and "response prevention"
Physical body (*jiu, saarir*)	Physical sense organ, topography of pain	Somatic complaints in CBT may be consequence of heart-mind and brain-mind processes	The connection between physical suffering and relationships is explored through the social world, heart-mind, and physical body	"Opposite actions" and "response prevention" are used to prevent self-injury to the body
Spirit (*saato*)	Vitality, energy, immunity to illness	Lost vitality in CBT can be associated with strong emotions in heart-mind (anger, fear)	Loss of vitality can be tied to difficulties in interpersonal relationships with both family and ancestral spirits	Preventing soul loss (*saato jaane*) is addressed through reducing intensity of emotions in heart-mind
Social status (*ijjat*)	Personal and family social standing and respect	Social status can be maintained through better insight into thoughts and feelings in CBT	Social status is explored by considering network of relationships; interpersonal deficits related to perceived social status can be challenged	Distress from perceived social status loss (*bejjat*) is managed through heart-mind emotional acceptance
Family and community relationships	Social support and social burden	The brain-mind processes related to relationships are explored for their effect on heart-mind processes	IPT themes of interpersonal disputes and role transitions examine social relationships	The group therapy component of DBT is used to discuss and model appropriate social relationships

3.1.3 Local expressions (idioms) for distress, folk diagnoses, and local concepts of trauma and loss

Summary Points:

- **In Nepali and other languages spoken in Nepal, there are no terms that directly translate as biomedical psychiatric categories, such as depression, PTSD, and behavioral disorders**
- **Nepali idioms of distress relate to Nepali conceptions of the self which are divided into the brain-mind, heart-mind, physical body, soul, spirit, and social status**
- **Idioms related to mental illness (*maanasik rog, maanasik samasya*) are highly stigmatized and lead to social isolation; idioms related to the heart-mind (e.g., *manko samasya, manmaa kura khelne, manma pir padne*) are more socially acceptable for discussion**
- **Somatic complaints are common among persons with psychological distress; examples include paresthesia/numbness or tingling (*jhamjham aaune*), abdominal**

pain/acid reflux (*gyastrik*), headaches and head burning (*thauko dukhne*, *kapaal polne*)

- **There are comparable concepts of the self and distress among Tibeto-Burman language speakers; in addition, the concept of *rlung* in Tibetan refers to stress-related health and psychological problems**

Overview

Ethnographic research in Nepal has shown that biomedical psychiatric terms do not have exact corollaries in Nepali. There are no terms that directly match depression, posttraumatic stress disorder, or childhood behavioral disorders. There is, however, a rich vocabulary of terms for emotions, thoughts, and behaviors (see **Table 6**).

Table 6. Nepali and Tibetan Terminology for Psychological Distress

Nepali or Tibetan term*	English description
aatincchu	Startled [124]
aitin laagyo	Sleep paralysis, spirit induced attack while sleeping [124]
ananda	Feeling relaxed; Higher state of bliss that transcends practical matters; social supports and psychosocial well-being allow one to transcend suffering and experience a good life [62]
*bejjat (*also *naak khatne, ijjat gayo)*	Loss of social status; social shame; damage to family's social status [124]
bigreko, khaarab	Broken; incurable permanent condition [123]
birsane nasakne darghaatana	Accident/event that cannot be forgotten [124]
chinta	Anxiety [107, 123]
*dar laagyo (*also *bhaya, traas)*	Struck by fear [124]
dhat	Semen; vitality; in psychological context, semen loss is associated with weakness, anxiety problems, and sexual difficulties; in medical context may be interpreted as sexually transmitted disease [137]
dimaag	Brain-mind: organ of social consciousness and rational behavior, damage to it leads to one becoming mad/psychotic [123]
dondre ne (Tibetan)	Spirit caused illness [75, 138]
drip (Tibetan)	Pollution of defilement [75, 138]
dukkha	Sadness; grief [107, 123]
dukha laagyo	Struck with sadness [124]
dukha lagne ghatanako gahiro chap baseko	Having deep and long lasting impression of the terrifying event [107]
gada laglagkamyo	Trembling of legs; nervousness and fear [139]
gyastric	Gastric complaints related to lifelong lifestyle and diet that could be a potential symptom of anxiety [128]
hawa (Nepali)*; rlung* (Tibetan)	Air or wind; one of the three humors in Tibetan medicine and Ayurveda that can become imbalanced; expressions of psychological distress in Tibeto-Burman groups often invoke wind imbalance [32, 75, 138]
ijjat, izzat	Honor, respect, social status [123]
jhajhalko aauchha	Flashbacks, flashing memories [124]
jhamjham	Parasthesia, subjective numbness or tingling [59]
laago	Range of supernatural forces such as ghosts and spirits that befall individuals from outside the body [123]
le (Tibetan)	Karma, or the law of cause and effect [75, 138]

Nepali or Tibetan term*	English description
lu (Tibetan)	Physical body [75, 138]
maanasik aaghaat	Mental shock (stigmatizing terminology) [124]
maanasik rog	Mental illness (stigmatizing terminology) [123]
maanasik tanaab	Mental tension [124]
maanasik yatana	Mental torture [124]
man	Heart-mind: organ of emotion; problems in the heart-mind lead to emotional and behavioral problems which are less stigmatized [123]
manko ghau	Wound/sore/scar on the heart-mind; associated with recurring intrusive memories [124]
manko shanti	Peace of mind [62]
manko-chitra	Heart-mind map, participatory approached for psychosocial needs assessment [125]
manma naramailo laagyo	Felt sad in my heart-mind
manmaa asar parchha	Effects on the heart-mind [123]
manmaa kuraa khelne	Words/thoughts playing in the heart-mind; worrying [123]
mansik roopse aswasth or mansik rup le aswath	Mentally disturbed; term used by more educated Nepali speaking groups [45]
mo (Tibetan)	Divination [75, 138]
nasaako rog	nerve disease [123]
niwa	Mind; when one's *niwa* hurts their *saya* falls and causes fatigue and depression [123]
paagal, baulaahaa, dimaag tik chhaina	Crazy, mad, psychotic (stigmatizing terminology); indicates extreme *dimaag* dysfunction and incurable permanent conditions; many symptoms of mental illnesses are lumped under these terms [124]
paani (Nepali)*, chu* (Tibetan)	Water; With relation to Mustang, the people feel that their biopsychosocial health is associated to the water and air in Mustang as it agrees with them [75, 138]
pet bhatbhat polyo	Stomach inflammation; associated with anxiety [139]
pidaa	Suffering, anguish, torment [124]
pir	Feeling very anxious and tense [107]
purdah	Custom of women's seclusion and exclusion; barrier for women's well-being [62]
saarir/ jiu	Body; site of physical suffering [123]
saato jaanchha	Soul/spirit loss [123]
saya	Soul, in some ethnic groups (Lohorung Rai) [123]
sem (Tibetan)	Heart-mind [75, 138]
tauko jhanan bhayo and kanparo tatyo	Somatic complaints referring to anger [139]
tension (English); *tanaab* (Nepali)	Both English and Nepali terms are used commonly in Nepal to describe general psychological distress and many symptoms of depression and anxiety [124, 140]
vaneko namanne	Feeling calm without any strong negative or positive emotion

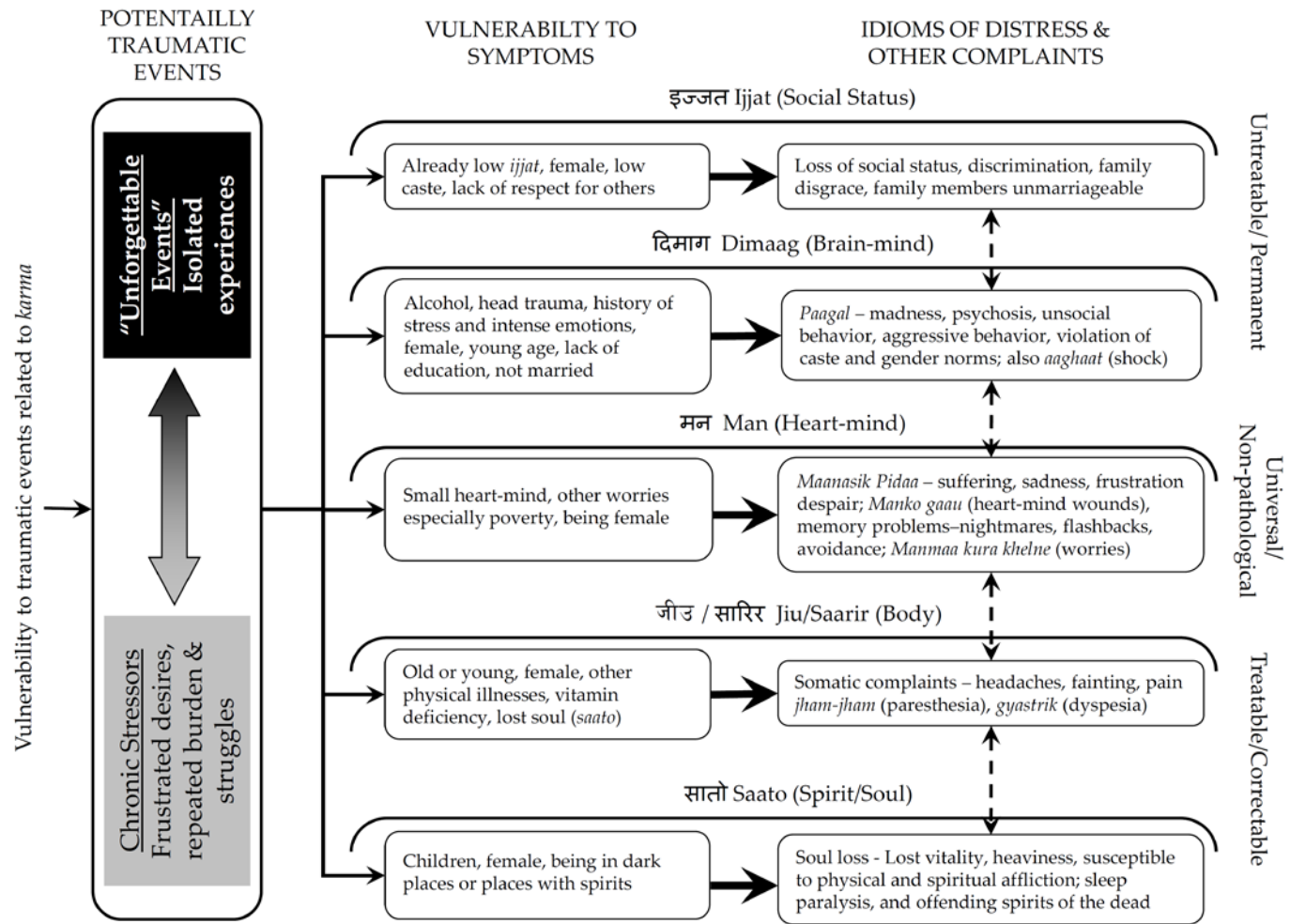*All italicized terms are in Nepali unless otherwise indicated.

Figure 6. Idioms of Distress Associated with Psychological Trauma (adapted from Kohrt and Hruschka, 2010 [124])

Idioms for Psychological Trauma

There is no single concept for psychological trauma in Nepal, but instead an array of idioms of distress is used to express responses to different types of traumatic events. **Figure 6** depicts important idioms of distress associated with potentially traumatic events. It also includes factors believed to make individuals more vulnerable to these sorts of symptoms. The model was developed through qualitative researchers with trauma survivors and MHPSS providers ranging from traditional healers to psychosocial workers to psychiatrists [124].

Somatic Complaints

A range of somatic complaints is common among presentations of psychological distress in Nepal [59, 128]. *Jhamjham,* a form of paresthesia that has been shown to be comorbid with depression, is a prime example of this type of somatization. Indigestion and discomfort in the abdomen described by the idiom *gyastric* in Nepal can also be seen as a potential symptom of anxiety [141]. Other studies have shown that physical complaints such as back pain, headaches, and leg trembles (*gada laglagkamyo*) may represent symptoms of psychological problems. Panic is also often somatized and may be described through sensations in the biological heart *muttu*, such as shaking of the heart (*muttu halliyo* or *kamyo*) [4]. For some social groups and in some social contexts, it is taboo to express strong emotions directly and hence somatic complaints may offer another way to convey emotions [139].

Idioms in Tibetan Language-Speaking Communities

Within culturally Tibetan and Tibeto-Burman communities in Nepal, local expressions for distress and folk diagnoses often reflect the complex disease etiology of Tibetan medical texts and the expertise of *amchi,* who are traditional Tibetan medical doctors [75]. The most common ways of describing psychosocial stress emerge through idioms of *lung* or "wind" – understood as a dynamic manifest in the body but also connected to the larger cosmo-spiritual and psychosocial world in which a person finds herself. *Lung* disorders often link to symptoms that biomedicine would link to mental health: restlessness, anxiety, sleeplessness or bad dreams, shifts in appetite. In certain instances expressions of *lung* disorder can be linked to forms of spirit possession and psychotic episodes. Historically these disorders have been described as more common in elder people, but with major traumatic events or the slow traumas of cultural change and forms of political turmoil, *lung* disorders have become increasingly understood as expressions of the stress of modern everyday life. Of the six different classifications of *lung,* the *sok lung,* or "life force wind," essentially regulates life and death; when *sok lung* is weak, death is imminent. According to Schwartz and colleagues [32], out of a sample of 22 Tibetan refugees who suffered from mental health symptoms, 76% used the term *wind imbalance* to describe their mental health ailment and symptoms.

Equally important are understandings of *nying* disorders; literally translated as "heart" problems, these are not cardiovascular etiologies in the strict sense but can manifest in different forms of physical pains in the chest, head, back, or even kidneys (especially in women). Other symptomatic descriptions for *nying* disorders and, in some cases also *lung* disorders can include disturbing dreams and feelings of either being too heavy or too light.

In terms of how people talk about psychosocial problems in everyday life, in addition to *lung* and *nying,* people will also speak of *la (bla, phla,* and other variations in Tibetan and Tibeto-Burman dialects) [75]. Often translated as "soul" or "life force," this is a folk (and literary) expression that speaks to senses of self and internal well-being that can be disturbed both by external events or experiences and by forms of inner conflict or turmoil. This term *la* corresponds in interesting ways to the general term for "deity" in many Tibetan and Tibeto-Burman contexts. When the *la* is disturbed, it can flee from the body and must be called back through ritual practice, often involving those who might double as *amchi* and *lama,* or by other types of folk healers or shamans (*lhapa, lhamo, bompo,* etc.). Another common way of framing psychosocial concerns is through the idiom of the *sem,* the heart-mind, which is located in the chest, not in the head, and is equivalent to the idea of *man* in Nepali language. To be "crazy" in Tibetan language is to be *nyomba.* This concept can at times be linked to understandings of spirit possession. Social links are often drawn between behavior classified as *nyomba* and forms of severe alcoholism or experiences of trauma that occurred early in life from which an individual has not recovered. This is distinct from how different forms of developmental delay or disability are classified.

3.1.4 Explanatory models for mental and psychosocial problems

Summary Points:
- **Mental health and psychosocial problems are attributed to impacts on the heart-mind (*man*) and brain-mind (*dimaag*).**
- **Mental health and psychosocial problems can be attributed to life stress, physical illness, religious infractions, bad *karma*, and being born with an inauspicious astrological forecast, (i.e., poor fate).**
- **Traumatic life events and mass disasters, such as the earthquake, can be seen to cause mental health and psychosocial problems though soul loss (*saato jaanchha*), loss of love ones, constant fear, worries, and economic stress.**

Overview
Explanatory models refer to how a person, his/her family, and the community describe the causes of mental health and psychosocial problems. Nepali culture lends itself to a range of explanatory models of mental and psychosocial problems. The best way to divide these models is by looking at Tibetan models and the cultural models of Nepali-speaking groups. See sections 3.1.2, 3.1.3, and 3.1.9 for explanations of explanatory models and help-seeking grounded in Nepali and Tibetan concepts of the heart-mind, brain-mind, spirit, and body.

3.1.5 Major sources of distress

Summary Points
- **There are many studies that describe the association between natural disasters, armed conflict, displacement, human right violations and mental health problems in Nepal.**
- **The recurring predictors for ill mental health among these studies are being female, poverty and caste.**
- **Although caste is not in itself a risk factor for psychological morbidity, discriminatory practices leading to social, educational and economic insults within the Dalit/Nepali group increase vulnerability.**
- **Reasons women in Nepal may have poor emotional health include: poor treatment of daughters-in-law, preference for male children, multiple wives, lack of support systems, inadequate household food security, and water scarcity.**

Natural Disasters
Natural disasters were found to be a non-conflict-related source of distress for men in a rural setting in Nepal [19]. Integration of mental health and psychosocial support in emergency settings has been recognised as an essential relief strategy and previous trainings for aid workers in Nepal included understanding the impact of emergencies and humanitarian operations on mental health and well-being [26].

Armed Conflict
Exposure to armed conflict, mainly in the context of Nepal's civil war, is a major source of distress, as identified in at least 14 of the reviewed articles. Specific experiences and their effects studied in the general population[1] include: abductions, forced participation of children and villagers in conflict, and witnessing violent events (e.g. beatings, harassment) affect psychosocial well-being [34] [22]; displacement, bombings and conscription to

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[1] Many studies relating to armed conflict focus on child soldiers (see '**age related issues**' for details)

armed groups are associated with elevated levels of distress [23]; exposure to conflict as a predictor of anxiety (but less significant for mood disorders and other conditions) [113]; stressors such as guerrilla war potentially trigger physical/psychological problems [142].

Displacement

The mass expulsion of Nepali-speaking Bhutanese refugees to camps in Nepal has been a focus of several studies. Torture is a significant source of distress in this group [143], along with violence and threats during flight, family separation, protracted settlement, uncertainty, and devaluation of skills and social roles [135]. Bhutanese refugees report a high incidence of depression, anxiety, and PTSD due to political experiences and detention in the camp, with torture as a possible contributor [144]. Sources of distress identified among Tibetan refugees include: being imprisoned in Tibet, abuse from Nepali police, family disturbance, and societal pressure [32]. In addition, internal displacement induced by civil war was found to have precipitated high rates of PTSD, anxiety, and depression [145].

Human Rights Violations

Bhutanese refugees experienced physical and non-physical human rights violations such as sleep and nutritional deprivation and humiliation. A high prevalence of PTSD and anxiety was also found in non-refugee Nepali torture survivors [110], and Nepali prisoners, who often present distress from torture through psychosomatic complaints. Conflict-related human rights violations may have repercussions for women in particular [146]. The effects of human rights violations against sexual minorities have also been studied in Nepal [147].

Sexual and Reproductive Health Issues

Sexual violence against displaced widows was found to affect resilience [148]. Because widowhood is locally stigmatized and South Asian widows are expected not to have sex, Nepali war widows' sexual and reproductive health is often ignored; research shows that even without sexual relationships, this group still experiences problems that need to be addressed, and furthermore are at increased risk of sexual violence because of their marginalized social status [65]. More generally, poor reproductive health was found to predict distress among postnatal mothers in rural Nepal [149]. Psychological distress among new mothers may be expressed in terms of "tension", which frequently involves physical symptoms and relates to social problems [45]. In cases of sexual torture, victims are often rejected by their family and community [150]. Trafficking of sex workers and domestic workers also causes mental health problems, with sex workers scoring highest on PTSD checklists [27].

Gender and Sexual Identity

In Nepal, a dominant force of marginalization is gender. Being female was linked to greater functional impairment on child soldiers' return home due to the low status of girls within society [74]. Of a sample of rural low-literacy Nepali women, most perceived to experience oppression due to their gender [47]. Reasons women in Nepal may have poor emotional health include: poor treatment of daughters-in-law, preference for male children, multiple wives, lack of support systems, inadequate household food security, and water scarcity [63]. Clark and colleagues [149] found that distress in women in low resource settings in rural Nepal occurred mainly due to poor health, stigma associated with the lack of a son, and fertility problems. In a sample of women of reproductive age, rape and abduction, women carrying heavy weight load, and suicide and gender-based violence were described as consequences or "realities" of being a woman in Nepal [88]. Gender minorities (men who have sex with men and "third gender" people) are also a vulnerable population and experience a wide range of human rights violations [147].

Age-Related Issues

There is no single definition for childhood, adolescence, or adulthood in Nepal [151]. Most discussion of age-related sources of distress in the literature focuses on issues for child soldiers. Child soldiers had worse mental health outcomes than never conscripted groups (except anxiety symptoms) [72]. Returning former child soldiers may experience stigma and discrimination from their families and communities, resulting in abuse and neglect. Discrimination, stigmatization, and fear of exposure (most ex-child soldiers conceal involvement in conflict)

can cause additional harm to children during interventions; for some, post-war experiences were more damaging to mental and psychosocial health than war-related trauma [72, 74].

In one sample, urban adolescents exhibited higher scores on most problem scales than those from rural areas; all problem scale scores (except somatic complaints) increased with age [152]. In another, the greatest burden of stress was amongst boys in rural areas, with key risk factors being homelessness and migration [153]. A vulnerable age group for gender based violence and suicide is reproductive age: 14-44/15-49 [88, 154]. Orphans and vulnerable children learning to live with HIV/AIDS may face specific stressors including prejudice and negative social attitudes.

Domestic Issues
In one study on rural women a source of oppression was found to be the mother-in-law, however, the study highlighted that the mother-in-law was often also oppressed [47]. Domestic violence (by husbands) is one of the most important sources of suffering for women in Nepal; other sources of suffering include polygamy, family conflict, and impaired livelihood [155]. Domestic violence impacts reproductive health among mothers and pregnant woman [86, 156].

Socio-Economic Status and Caste
Poverty and socioeconomic status have been cited important factors causing emotional distress, with unemployment and lack of labor skills contributing to mental illness [108]. Low caste is a primary risk factor for poor psychosocial well-being in child soldiers, and caste/ethnicity predicts reintegration support [74]. Poverty and malnutrition cause poor emotional health [63]. Among rural mothers in Nepal, vulnerability to psychological distress comes from social disadvantage and gender [45]. Poverty, increased migration, and a stagnant economy influence modern psychosocial well-being [157]. Although caste is not in itself a risk factor for psychological morbidity, discriminatory practices leading to social, educational, and economic marginalization within the Dalit group increase vulnerability.

Disease, Disability and (Mental) Illness
Existing physical and mental problems cause distress and interact with other sources of distress. In non-refugee Nepali torture survivors, PTSD and anxiety were associated with disability [110]. Underlying physical pathology (e.g. numbness) was found to be associated with depression [59]. Finally, mental illness has been identified as a cause of suicide and self-harm, particularly when untreated and accompanied by a lack of community networks [135, 154].

3.1.6 Role of the formal and informal educational sector in psychosocial support

Summary Points
- **Education has been seen as an important tool to increase development, but may have reinforced caste and gender-based discrimination rather than challenging it.**
- **Many vulnerable groups are excluded from education, and some who are included are not receiving their right to a good quality education with equal opportunities and no discrimination.**
- **Physical and psychological punishments are practiced commonly in schools, and have been demonstrated to be associated with depressive symptoms and suicidality among students.**
- **Several publications emphasize the importance to build appropriate psychological and mental health interventions within the education sector to reach children.**
- **The only rigorous evaluation that has been published on the efficacy of school-based psychosocial interventions (CBI) in Nepal has demonstrated effectiveness in improving social-behavioral and resilience indicators only among certain subgroups (improving**

prosocial behavior among girls, reducing psychological difficulties and aggression among boys, and increasing hope among older children).

Literature on the role of the formal and informal education sector can be divided into two main sections: articles that describe how schools and the education system are used as a platform for psychosocial, mental health, and disaster risk reduction programs, and articles describing education as part of the promotion of psychosocial well-being.

Education Influencing Psychosocial Well-being and Integration

Nepal has a short history of modern and formal education. Nevertheless, mass schooling since the 1960s has become the culturally acceptable and dominant form of education in Nepal. Increased enrollment in education has provided an opportunity for students to step outside of family- or caste-based occupations, creating a new type of distinction– between those who were educated versus uneducated. Formal education has helped shape what Nepali citizens understand as modernity and development, and increased literacy has resulted in citizens playing more active roles, eventually transforming social practices and values.

The importance of education in contributing to psychosocial well-being has been affirmed in some studies. For example, in a study conducted among conflict affected women in Nepal, Burundi, and Uganda, the authors identified education as one of five domains of psychosocial well-being that were common across the three countries studied [62]. This notion of the importance of education for people's psychosocial well-being was also incorporated into a program focusing on the reintegration of former child soldiers; promotion of formal and informal education was included in the "reintegration package" offered to these children [61, 158]. However, in a study exploring protective and risk factors for mental health among reintegrated Nepali former child soldiers, education was shown to have no significant impact on their psychosocial well-being [159].

Despite the fact that education has been widely framed as a development tool, some argue that it has reinforced caste- and gender-based discrimination rather than challenging it. While education can promote opportunities, a failure in exams can result in not being able to attend college, and oftentimes children from rural areas are the ones failing. Failed aspirations can have negative psychosocial influences, the gap between goals and realities has even led young people in Nepal to react in radical ways, as their education did not reflect socio-economic mobility after graduation [151].

Moreover, many vulnerable groups are excluded from education, and some who are included are not able to exercise their right to a good quality education with equal opportunities and no discrimination. The long history of caste-based discrimination has influenced behaviors in accessing resources such as education. For example, when Dalit students do end up in schools, they can be bullied by children of other castes. This bullying has psychosocial impacts, and is discouraging to Dalit students wanting to attend schools. Another factor in education that may have a psychological impact is the disciplinary methods of teachers; both physical and psychological punishments are practiced in schools, and have even led to depression and suicide in some students [160]. Unmet expectations from school and the opportunity cost of education combined with these other factors can discourage children from attending.

Education Sector as a Platform for MHPS Programs

Nepal's mental health policy [161] summarizes policies and strategies in relation to mental health care and the rights of people with mental illnesses. The policy includes raising awareness about mental health and the promotion of healthy lifestyles within community structures such as schools. Several publications emphasize the importance of building appropriate psychological and mental health interventions within existing government structures to promote sustainability of services, including in the education sector to reach children. Psychosocial programs targeting formal and informal education settings have included promoting recreational activities and implementation of the Classroom-Based Intervention (CBI), a 15-session intervention that combines elements from creative-expressive therapy, cooperative play, and cognitive behavioral techniques [74,

162]. The school-based intervention was part of a multi-tiered psychosocial and mental health care package for children affected by armed conflict in Nepal and 4 other countries [163]. The authors stress the importance of non-stigmatizing detection and service provision by offering services within a school setting, and outside the health sector. The only rigorous evaluation that has been published on the efficacy of school-based psychosocial interventions (CBI) in Nepal has demonstrated effectiveness in improving social-behavioral and resilience indicators only among certain subgroups (improving prosocial behavior among girls, reducing psychological difficulties and aggression among boys, and increasing hope among older children) [162].

Another example of how the education sector has been used as a platform for implementing services is a 3-year project that aimed to disseminate knowledge about Disaster Risk Reduction (DRR) through schools in four districts in Nepal, thereby reducing vulnerability to disasters. A total of eight schools, 4,500 children, 200 teachers and 200 communities participated. The authors advocate that DRR be included in the curriculum in formal education settings as a valuable form of information in disaster preparedness. The project not only allowed appropriate transfer of information from children to parents, but also encouraged a "we can do" attitude [164].

3.1.7 Role of the formal social sector in psychosocial support

Summary Points
- **Ministry of Health and Population has established 'one-stop' crisis centers in some districts of Nepal that provide a comprehensive approach to people experiencing domestic and gender-based violence, including basic psychosocial counseling.**
- **A number of local and international non-governmental organizations in Nepal that work in the social sector offer psychosocial support services, some with the capacity to train non-specialists using concise, manualized training programs to deliver psychosocial support.**
- **Key barriers include insufficient human resources and funds, lack of support from national policy, inadequate number of mental health organizations (especially in rural areas), lack of linkages between the mental health and social sectors, weak referral pathways, stigmatization of people with mental disorders and political instability.**

What is Currently Available?
In comparison to government and private agencies, NGOs have the largest number of MHPS services (representing 52% of the total providing MHPSS services) [74]. The Mental Health and Psychosocial Support (MHPSS) Working Group produced a Mental Health and Psychosocial Support Contingency Plan for Nepal, based on the Inter-Agency Standing Committee (IASC) Guidelines for Mental Health and Psychosocial Support in Emergency Settings [165] with the aim of enabling humanitarian actors and communities to plan, establish, and coordinate multi-sectoral responses; the plan also details the key agencies responsible for the different emergency procedures [165]. The agencies responsible for coordinating the multi-sectoral response were UNICEF and TPO. The Office for the High Commissioner of Human Rights (OHCRC) and Center for Mental Health Care (CMC) are responsible for ensuring that psychosocial support provided is in line with international human rights standards, including provision of child protection and gender-based violence services. The World Food Programme (WFP) and TDH (Terre des Hommes) are responsible for food security and nutrition, respectively, and ensuring social and psychological considerations are made during provision of this support. The focal organizations responsible for site planning and shelter provision are the Lutheran World Federation (LWF), CARITAS, and the International Organization for Migration (IOM), in collaboration with the Ministry of Home Affairs, the Ministry of Peace and Reconstruction, District Development Committee, and Chief District Officer.

A number of local and international non-governmental organizations in Nepal that work in the social sector offer psychosocial support services in addition to their primary roles [166]. These organizations and their roles are detailed in Table 1, and their geographic coverage in Table 2. In addition to providing psychosocial support, organizations like TPO, CVICT and LACC have the capacity to train non-specialists using concise, manualized training programs to deliver psychosocial support [91, 141, 156, 167]. In the last few years alone, NGOs have produced 500-750 psychosocial workers (community members who have completed short courses of one to two weeks and act in various roles)[123]. The Center for Mental Health and Counselling – Nepal (CMC) operates in 12 different districts. CMC reported to have served 35,000 people in a seven to eight year period [157]. There are also 25 non-governmental medical colleges that provide access to mental health services [157].

Additional resources are available to victims of human trafficking and gender-based violence. The Ministry of Women, Children, and Social Welfare has launched a National Minimum Standard to ensure comprehensive care and support for survivors of human trafficking and gender-based violence. The Ministry of Health and Population has established "one-stop" crisis centers in some districts of Nepal that provide comprehensive care for people experiencing domestic and gender-based violence, including basic psychosocial counseling [168].

Barriers and Challenges
Multiple barriers and challenges exist that limit the capacity of the social sector to provide psychosocial support. These barriers include: insufficient human resources and funds, lack of support from national policy, lack of coordination between district agencies and service providers, inadequate number of mental health organizations (especially in rural areas), lack of linkages between the mental health and social sectors, weak referral pathways between governmental and non-governmental organizations, stigmatization of people with mental disorders, lack of awareness of the availability community services, and political instability [74, 168-170].

Table 7. Roles of Social Sector NGOs that Provide Psychosocial Support Services

Organizations	Role
Maiti Nepal	Combats female trafficking and protects women's and children's rights, affiliated with the Social Welfare Council
SAATHI	Works to eliminate violence against women and girls, supports women and children affected by conflict, supports community development
Advocacy Forum-Nepal (AF)	Promotes international human rights
Bishwas Nepal	Promotes the rights of female restaurant employees
Blue Diamond Society (BDS)	Health promotion for sexual minorities
Centre for Victims of Torture Nepal (CVICT)	Human rights promotion and rehabilitation for victims of torture, has established referral pathways with human rights organizations, political parties, and medical personnel; psychosocial treatment is focused on psychosocial counseling, physiotherapy, relaxation therapy, yoga, and social support
Nagarik Aawaz	Activism for peace and development, works especially with youth
National Health Foundation (NHF)	Enhances accessibility of health and rehabilitation services for individuals who have, or are vulnerable to contracting, HIV/AIDS
Shakti Samuha (SS)	Supports survivors of trafficking, HIV victims, and women experiencing domestic violence and/or sexual exploitation
Transcultural Psychosocial Organisation (TPO)	Improves mental health care systems in conflict and disaster areas, including community-based psychosocial support, psychological therapies and integration of mental health into primary health care.
Legal Aid Consultancy Centre (LACC)	Provides legal support to female victims of domestic abuse
Center for Mental Health and Counselling (CMC)	Provides community based mental health services, including services integrated within primary health care.

3.1.8 Role of the informal social sector in psychosocial support

Summary Points:
- **The informal sector includes families, friends, neighbors, local religious and cultural assemblies, and community-based organizations (CBOs) such as women's groups, mothers' groups, child clubs, youth groups, child protection committees, political parties, and sister organizations**
- **In Nepal the informal sector is the most common site of help-seeking for mental health and psychosocial problems because of the lack of formal mental health services and a perception that family and religious supports are more appropriate contexts for disclosure, emotional support, and other forms of coping**
- **Informal sector supports often focus on solving problems perceived to be the root causes of distress (e.g., economic problems, interpersonal disputes) rather than simply providing an outlet for emotional catharsis; this may lead to frustration with formal mental health services that do not directly address such problems**
- **Based on social hierarchy (e.g., caste- and gender-based discrimination), informal sector supports, especially religious-affiliated groups, may exclude marginalized groups who also carry the greatest burden of mental health and psychosocial problems**

Overview

In Nepal, where the formal sector has not been well established and is not present in all the parts of the country, the informal sector plays an important role in providing psychosocial support. The absence of adequate manpower and national-level mental health policies, legislature, and plans likely contributes to the importance of the informal sector [171]. The informal sector includes social relationships (e.g., with family, friends, community), community-based groups (youth groups, child clubs, women's groups) and support that emerges from traditional and cultural practices, including traditional healing. Research conducted in Nepal has shown that social/informal support is associated with psychosocial well-being [22, 38, 85, 112, 159]. Two recent studies from other humanitarian responses in Nepal demonstrate that material relief packages alone are insufficient and that relief needs to be complemented with a strong social support, as exemplified by the informal social sector, in order to improve mental health [85, 159].

Family and Peer Support

In Nepal, family members (including members of the extended family) and neighbors play a central role in recognizing distress, caring for distressed individuals, and determining when additional help-seeking in the formal sector is warranted. In addition to responding to direct verbalizations of distress (see section 3.1.3), they may recognize distress by attending to changes in an individual's behavior. In particular, the following behaviors may be recognized as indications of psychosocial distress or vulnerability warranting informal social sector intervention: loss of appetite, remaining idle, staying in the home all day, isolating oneself, thinking too much, or being on the "wrong road" (usually implying deviation from cultural or religious values) [172]. In addition, friends, family members, and neighbors are often privy to the problems or potential causes of distress that individuals face, and may therefore intervene proactively.

A range of common social care practices rooted in various Nepali religious and cultural traditions address the experience of distress. However, given cultural differences in the framing of suffering and healing, these practices may easily go unrecognized in research conducted in a psychosocial or mental health paradigm. Social sector interventions in Nepal commonly foreground the resolution of perceived causes of suffering (rather than directly addressing psychological/emotional suffering) and may emphasize socio-economic, political, and spiritual causes of distress alongside and at times to a greater extent than the social or the psychological. Accordingly, friends, relatives, and neighbors may respond to signs of distress by providing instrumental support (e.g., a loan, a meal) or advice on how to overcome specific problems [41]. In cases of interpersonal

problems, such as personal conflicts or family disputes, it is not uncommon for neighbors, relatives, and community leaders to step in as mediators.

These patterns in informal social sector care suggest that in Nepal, caring for someone in distress often entails pragmatic intervention to address the perceived root causes of distress, whether they are economic, social, religious, or otherwise. It was found that patients accessing mental health services in Nepal sometimes felt counseling did not meet their "specific needs," such as the need for medication, financial support, or job training [173] and that Nepali psychosocial counselors often deviated from the Western models of therapy they had been trained in to offer practical advice to their clients [139].

Other common practices of care involve listening to a distressed person's concerns and offering advice, "giving sympathy," or more actively "convincing" him/her. Convincing may entail "showing the right/good road," or influencing an individual to change his or her thoughts/behavior in a particular way, often in accordance with social or religious values. Another significant approach to caring for distressed individuals embraces the value of distraction; friends and family members may endeavor to keep a distressed individual busy or engaged to prevent him/her from falling into ruminative habits or isolating oneself from the community. There is a local emphasis on accompaniment that acknowledges the importance of not leaving a distressed individual alone with his/her thoughts [174]. Finally, friends, neighbors, and particularly family members may be intimately engaged in seeking help on behalf of a distressed individual.

Strong family and peer support has been linked with psychosocial well-being in several studies [112, 158]. Within families, knowledge of mental health and perception that a member has mental health needs contribute to variation in levels of social support [169, 175]. Gender roles can differ in type of support they are associated with: women provide emotional support, address dietary needs, and care for physical needs in the household [169]. Peer support is also important [112], especially for persons and groups who feel excluded from institutional support mechanisms, such as people in the Dalit caste, ethnic minorities, women, youth, rural populations, and migrants [164]. This suggests that formal institutional support is more regularly accessed by high-caste, urban, educated, and affluent populations.

Rituals, Religion, and Traditional Practices
Traditional and religious support groups may contribute to mental health and well-being by providing supports that are culturally appropriate and rooted in people's beliefs and faith. In much of Nepal where biomedical concepts of mental illness are not endorsed, traditional and religious support is the most common form of healing for psychological distress.

Common traditional and religious practices with implications for psychosocial well-being include rituals such as *puja* (prayer and worship, which can be conducted individually or in large groups), *yagya* (beliefs related to fate, which can be intervened upon with religious healers, astrologers, etc.), and new religious and spiritual groups that have formed including *Satsang* (a Hindu group featuring new forms of religious teaching), *Mandali* (a Christian prayer group), and the *Manokranti Movement* (translated as "psycho-revolution," a spiritual, non-religious group). Daily practices of worship (*puja*) are widely associated with feelings of relief, lightness, freshness, and peace in the heart-mind [174]. For this reason, sites for worship, including family shrines and temples (*mandir*), may function as valuable psychosocial resources. In addition, Hindu yoga practice and Hindu and Buddhist meditation practices may alleviate distress and support well-being [174]

Healing practices of this nature can have both positive and potentially negative effects [169], just as biomedical practices can be both helpful and harmful. In instances where informal supports and traditional practices are potentially harmful, alternative pathways of help-seeking can be recommended to optimize the benefits of informal care [124]. For example, informal actors can also be trained to provide basic psychosocial support, as well as to refer people with mental illness to psychiatrists and counselors [74, 173].

51

Coping Strategies
The direct translation of "to cope" in Nepali (*saamanaa garnu*) carries connotations of "to face" or to actively confront a challenge. The phrase "to solve tension" (*tension/tanaab samaadhaan garnu*) may therefore be a more accurate translation of "coping" as it is applied in the mental health fields, since it encompasses a broader spectrum of coping strategies including those which are more passive (e.g., denial) and/or locally construed as maladaptive (e.g., drinking alcohol) [140].

Research in Nepal points to a cultural preference for problem-focused coping strategies that actively address the problems perceived to be causing an individual's distress [140, 176]. For example, "Getting involved in a political movement," has been locally identified as a "positive" way to cope [111, 177]. Moreover, "active coping" and "planning" ranked as the two most utilized coping strategies in a sample of Bhutanese refugees in eastern Nepal [140].

Beyond such active strategies, and perhaps especially when facing life problems that cannot be resolved by individual action, many Nepali people describe efforts to manage their distress internally, or "make one's own heart-mind peaceful" (*aphno man shanta banaune*). This common expression connotes a self-reliant approach to managing distress and is often invoked in relation to other highly utilized coping strategies: positive reframing, acceptance, and religion. The need to accept the problems one encounters in life is stressed in both Buddhism and Hinduism, and can perhaps be traced to karmic explanations of adversity. Both religions also prescribe practices that either directly or indirectly lead to an adaptive "change in mind" associated with feelings of peace (*peace*) or relief (*ananda*); these include daily worship (*puja*), meditation (*dhyan*), and yoga [174].

Distraction has also emerged as an adaptive coping strategy in several studies in Nepal. Ruminating about one's problems or "thinking too much" is widely seen as an unconstructive habit that renders one more susceptible to acute forms of psychological distress or disorder; therefore, activities that keep the heart-mind busy or engaged (*byasta rahanhu*) may be highly valued. For example, playing with or watching children play and singing have been identified as positive coping strategies in previous research in Nepal [177].

There are also maladaptive coping strategies. The coping strategy "self-blame" or "blaming oneself" is relatively frequently endorsed among strategies considered to be maladaptive. One possible explanation for this finding is that self-blame is unlikely to damage one's social status or burden others in one's support network. Other coping strategies locally construed as maladaptive include denial and behavioral disengagement (in other words, very passive strategies). In previous research, Nepali individuals also described a range of socially disruptive behaviors as ways of coping with distress including hitting one's children, quarreling with others, and abandoning one's spouse [177]. This suggests a relative recognition of the interpersonal repercussions of distress in the Nepali context. Finally, alcohol use may be a common way of coping with distress in some communities in Nepal; however, cultural taboos against consuming alcohol likely inhibit disclosure of this behavior, particularly by members of higher caste Hindu groups.

People in Nepal may not universally endorse the value of verbalizing feelings of distress. On one hand, seeking emotional and instrumental support from friends, relatives, or religious and community leaders is a common, socially acceptable practice and many people describe feeling light (*haluka*) in their heart-minds after sharing their "mental burden" (*maanaasik bhoj*) with others. On the other hand, some people express a preference for forms of coping that do not involve reliance on others, citing a reluctance to burden others with their problems or a belief that talking about one's distress does not solve its root causes. Moreover, talking compulsively about one's distress may be seen as highly maladaptive and potentially associated with more severe and stigmatized forms of mental illness [140].

Incorporation of Informal Support Sectors in MHPSS Activities
Some interventions in Nepal have taken a "social ecological" approach, which incorporates informal support systems (including family- and community-level supports) in accordance with the IASC MHPSS guidelines [178] [179]. In Nepal, CBOs include mothers' groups, women's groups, self-help groups, micro-finance groups,

child protection committees, and child clubs, all of which are present throughout the country and supported by the governmental and non-governmental organizations. Though these groups have different agendas, they can help in providing psychosocial support to individuals and families at different levels and in different capacities. For example, child clubs through their network of children in school and communities can identify children with suicidal ideation or trauma and refer them to specialist support groups or can themselves conduct peer self-help sessions [178].

Child protection committees and local peace committees, which are formed through the mandate of the Government of Nepal, can also act as a means of ensuring that the government is channeling enough focus and resources for mental health care in their community [61]. Community-based mental health programs with involvement of service users have also been initiated in a few districts of Nepal by the government and NGOs [168]. CBOs have also played an important role in addressing mental health needs of Bhutanese refugees in the refugee camps [174]. Relief packages increasingly incorporate these informal groups in their relief plans and programs, and the Contingency Plan Mental Health and Psychosocial Support manual also emphasizes the need to identify and promote positive healing practices including religious, cultural, spiritual support mechanisms and local coping processes [165].

By involving local actors in the informal sector in MHPSS programs, some hidden threats to program effectiveness may be identified [125, 165, 178]. An additional advantage of partnering with informal psychosocial support mechanisms lies in the fact that they solve problems using local techniques and resources already existing within the social fabric of communities [178].

Challenges of Informal Support Sectors
There are some challenges in providing psychosocial support through the informal sector as well. First, given gender and caste discrepancies in Nepali society, people from disadvantaged groups may have limited access to these informal social sector resources. In Nepal, Dalit and women bear the greatest burden of mental health problems and are also most likely to be excluded from social support networks [18, 19, 159]. Groups most in need of psychosocial support are also those most likely to be excluded from religious, ritual, and community participation [178].

Another challenge is that some religious practices may potentially worsen mental health problems [19, 63, 178, 180]. In Nepal, women who have lost their husbands, children who have lost their families, and handicapped people may be stigmatized and deprived of family/community support. For example, a woman may be blamed for the loss of her husband or son on the claim that she was not pious enough [181]; this has roots in Nepali Hindu religious texts such as the *Swasthani*, which includes stories of women befalling painful losses and suffering in life because of their failure to achieve ideal female norms [44].

3.1.9 Role of the non-allopathic health system in mental health and psychosocial support

Summary Points:
- **Traditional healers continue to be used widely throughout Nepal, including for psychological distress**
- **Some traditional healers, for example *dhami-jhankri, lama, gurua*, consider psychological distress to result from being struck by ghosts (*bhut*) or witches (*boksi*), which may result from having offended ancestors or from curses sent by others; healing entails appeasing these spirits**
- **Sudden fright or trauma can result in soul loss (*saato jaanchha*), which can be treated by traditional healers calling the soul back**
- **Tibetan Medicine is a formal system of training, with an extensive psychiatric/psychological practice including diagnosis and treatment of stress and traumatic event-related conditions**

Overview

Non-allopathic health systems remain a crucial avenue through which many people in Nepal seek care for both chronic and acute illnesses, including mental health and conditions that manifest in biopsychosocial terms. The importance of non-allopathic care in Nepal can be attributed to several factors. First, these forms of care are rooted in the culture and tradition of Nepal. Second, the formal allopathic support system has not been well established in every part of the country and existing mental health services/facilities are underutilized [4]. Third, because traditional healers address mental health and psychosocial problems through focusing on the body (*jiu*), spirit (*saato*), and social relations rather than the more stigmatizing idioms of mental illness or brain-mind disorder, people may be more likely to go to traditional healers and shamans for treatment and support. Traditional healers include practitioners such as *dhami-jhankri, lama,* and *gurua.*

The non-allopathic medical system in Nepal encompasses both folk/religious healers (e.g., shamans) and practitioners of traditional medical systems (e.g., Tibetan medicine and Ayurveda). Folk medicine often involves the supernatural realm of spirits and may include the use of home remedies, prayer, and religious rituals [173]. Folk healers may deal with witchcraft and illness caused by spirit possession (*laago*), among other ailments. Traditional medicinal systems in Nepal approach disease from a perspective of bodily imbalance, often using herbal medicine or mineral/natural salts.

At an ideological level, one key and overarching discourse on traditional healing in Nepal is that development organizations, medical professionals, and the "educated" public frequently describe these healers as "backwards," "superstitious," or as "barriers" to seeking care [182]. Indeed, even some of the practitioners of traditional healing advocate that the traditional healing system should be used in conjunction with biomedical methods and that patients should also be referred to specialized hospital care [32]. As part of modernization, the international development community has tried to reconstitute the role of traditional healers in the healing process as auxiliaries to biomedical care [182]. The Mental Health and Psychological Support plan in disaster preparedness speaks about the necessity for collaboration between allopathic and traditional healers when possible [4]. It was noted that psychiatrists, in general, have found faith healers to be cooperative and even act as a referral system for patients [183]. In another study, a traditional Tibetan doctor reported that roughly 10-15% of patients cannot be treated by Tibetan medicine alone and have to be referred to the hospital; another Tibetan medical practitioner explained that this traditional practice is best when used in conjunction with the medical method.

Folk and Religious Healing

Folk and religious healing traditions in Nepal feature a range of practices related to mental health and psychosocial well-being. In particular folk healers may frame sickness, including mental complaints, as the loss of vitality through the loss of the soul, which is a form of distress typically described after a very frightening or traumatic event [124]. The construct of the soul (*saato*), and soul loss allows a way to discuss and treat psychological symptoms such as fear, low mood, fatigue, and nightmares. In cases where the primary complaint is soul loss, folk healing is often sought in order to recall the lost soul, and may be combined with medical treatment addressing the body. Sufferers describe the sensation of a recalled soul performed by healers as relief of pain with momentary lightness of the heart-mind (*haluka*) (cf. [184]).

Folk healers may additionally address *angha betha* (suffering in the body), witchcraft, and spirit possession (*laago*). In spirit possession, ghosts and spirits are believed to affect the sufferer in various ways. Treatment for possession and witchcraft involves re-aligning the relations between both humans and the spirit world. Another form of folk healing used by shamans (*dhami-jhankri*) is called "binding of the heart-mind" (*man badne*), which involves controlling distressing processes or bad memories and has been sought as a treatment for child soldiers [185].

Religious healing is typically sought when the main concern is loss of social status in connection with a traumatic event; offerings given and rituals performed may atone for poor karma and sins from one's past life [124].

Other religious healing rituals may involve *puja* (worship or prayer); blood sacrifices to the gods, spirits, or ancestors; mantra or *jharphuk;* and use of amulets as a protection [186], as well as text and herbal inhalation.

While little is known of the efficacy of folk and religious healing in Nepal for psychological distress and mental illness, ethnographic accounts of these practices have described a range of emotional, psychological, and social responses that suggest the potential for alleviation of suffering [122, 184, 187]. These healing practices may provide a narrative structure through which the ill person comes to re-experience their symptoms, mind, and body, in particular ways [130]. However, there may also be some stigma attached to revealing that one has sought out such healers, as (biomedical) allopathic health workers may view them as backwards and having mental illnesses themselves [182]; discussing and explaining psychosocial distress in terms of the body may be less stigmatizing than discussion in terms of witchcraft [123].

Traditional Medical Systems
Both major Asian medical systems in Nepal, Ayurveda and Tibetan medicine, address mental health and psychosocial problems in various ways. Tibetan medicine is widely practiced in Nepal, and is a frequent source of support for psychosocial problems. In this system, religion and medicine are intertwined rather than viewed and consulted separately. Disease is believed to stem from imbalances in the three humors: wind, bile or phlegm. Wind is most directly connected with the mind, and can influence or control the other two humors, indicating the role of mental imbalance in all health problems. Trauma, torture and other mental disorders are commonly diagnosed and treated as *wind imbalances*; approximately 15-20% of cases have been characterized as such by a Tibetan healer. As a treatment, Tibetan doctors may prescribe Tibetan herbal medicine or changes in behavior (i.e. meditation) and diet in order to balance the wind in each of the organs. Notably, in a sample of Tibetan refugees who suffered from psychosocial distress, 86% used the Tibetan healing system, 76% consulted Tibetan doctors, 52% consulted Spiritual leaders and only 14% used Western allopathic medicine.

Yet in order to address psychosocial disorders or specific experiences of trauma, traditional Tibetan doctors (*amchi*) are only one part of the picture; a range of medico-religious practitioners might be called upon to address psychosocial distress [75]. Shamanic ritual practice and forms of Tibetan Buddhist ritual practice can be incredibly important means of addressing psychosocial illness or restoring a sense of psychosocial well-being. A shaman's sounding is a form of collective community witnessing of one person's trauma, as well as a form of transference of that trauma through and out of the shamanic practitioner him/herself over the course of a shamanic journey. A *lama* or *ngakpa* (tantric householder priest) with a particular connection to a household protector or individual's tutelary deity will be able to perform efficacious rituals to help restore balance and well-being in that household, or in an individual of that household. Such forms of ritual practice are manifold, but most involve liturgical recitation, the creation and dispelling of effigies, and various forms of fumigation practices.

In other instances, forms of *individual* meditative and ritual practice might be "prescribed" by a medico-religious practitioner to an individual patient as a way of restoring mental and emotional health and well-being [75]. In some cases, community-wide Medicine Buddha ritual practices or other forms of collective ritual practice (oral instruction by a Buddhist teacher or empowerment ceremonies) may help to bring senses of closure and healing related to the trauma of the earthquake. At such events, it is not uncommon for forms of *chinlab,* ritual medicine that can be ingested, and/or the distribution of protective amulets. If well-respected Buddhist practitioners could make an effort to visit rural affected areas in Nepal, this would undoubtedly be a force for positive collective healing.

3.1.10 Help-seeking patterns

Summary Points:
- **Formal help-seeking practices include three general domains: folk medicine, traditional medicine, and biomedicine**

- **Families are likely to seek multiple forms of care simultaneously for mental health problems**
- **Families may present the same distress through different idioms and explanatory models to different practitioners to be consistent with expectations of that healer's domain**
- **Women, despite carrying a greater burden of mental health problems, may be less likely to pursue formal health care in Nepal**
- **Trauma survivors, such as torture and disaster victims, may feel responsible for negative life events affecting them and their families and thus may be less likely to seek care**
- **Care for suicidality is rarely sought through biomedical services because of fear of police involvement (suicide is a crime), and families are more likely to seek care from traditional healers**
- **Help-seeking through psychotropic medication is increasing throughout Nepal, and most psychiatric drugs can be obtained without prescriber involvement; in addition, there is a lack of standardization for psychiatric drug prescribing practices among health workers**

Overview

Health-seeking is in part influenced by the availability of different forms of health care. Three health care systems exist in Nepal: folk medicine, traditional medicine, and biomedicine. No system has clear "ownership" or "responsibilities," creating overlap in care. Traditional healers are the most prevalent practitioners (1 traditional healer per 650 persons), whereas clinical psychologists are fewest in number in the country (1 clinical psychologist per 4.5 million persons) [123]. Mental health and psychosocial services are limited in Nepal despite a rise in depression, posttraumatic stress disorder, and suicide due to the Maoist conflict; only 37 community-based psychiatric inpatient units are available. Thus, sufferers and their families are likely to call upon traditional healers early in the course of treatment whereas psychiatrists and psychologists are typically a final resort. However, this hierarchy of resort is dependent upon a range of issues, including caste and ethnicity, educational standing, and economic status.

Simultaneous Help-Seeking across Formal Domains

It is not uncommon for people in Nepal to visit traditional healers and general physicians simultaneously [98]. Physicians are usually visited after trying home remedies and self-medication based on biomedical pharmacist recommendations. Traditional healers are seen more often for neurotic illness and symptoms such as crying, abnormal visions, anger, irrational behavior, and feeling confused. Patients seek care from physicians for bodily complaints, wounds, diarrhea, broken bones, and so forth. For those with access, psychiatrists, clinical psychologists, and psychosocial counselors are also referral points for mental health-related care. Psychiatrists are visited by patients experiencing psychosis among educated families and usually referred to by a physician when the patient does not improve or exhibits psychotic behavior. Psychiatrists refer cases to clinical psychologists when they feel that a patient is not a good candidate for pharmacotherapy or would not improve with pharmacotherapy alone [123].

In Nepal, local ways of conceptualizing the person also inform help-seeking (see section 3.1.2). Non-allopathic healing practitioners typically address illness related to the spirit (*saato*) and sometimes the body (*jiu*), whereas allopathic services may be sought for issues of the heart-mind (*man*) (psychosocial workers), brain-mind (*dimaag*) (psychiatrists), or solely the body (general physicians). For example, if depression is experienced as physical symptoms, one may seek care at an allopathic hospital or with health workers rather than from traditional healers such as shamans (*dhaami-jhaankri*). The latter are more likely to be sought if mental distress is believed by sufferers to be caused by spiritual forces, such as witchcraft or possession by ghosts or spirits.

It is estimated that over 75% of all illnesses are treated within the traditional health care system. Scholars found that home remedies for illness are often sought first, followed by formal health-seeking within the 'traditional'

system. Traditional and biomedical systems often contend with each other as they both approach illness from a "scientific perspective." People in Nepal may prefer traditional medicine, as it is more culturally salient [98]. Concerns over stigma may also influence people's decisions about which healers they seek for help. For patients experiencing mental distress, their families are likely to call on traditional healers early in the course of treatment, whereas psychiatrists and psychologists are typically a final resort.

Some health workers and pharmacists translate "multiple physical complaints" into a diagnosis of depression [182], which can lead to an over diagnosis of depression in patients for whom a medical diagnosis may be indicated, as vitamin B12 deficiencies and malnutrition may be overlooked [59, 128]. Alternatively the presentation of mental health conditions through physical symptoms may also be overlooked. However, stigmatization of mental health conditions, among which depression is one, has led in some cases to doctors and health workers not informing patients of the condition they suffer from. In some parts of western Nepal the idea of "nerve disease" has been introduced as an explanatory device and, for those diagnosed with depression, as a diagnosis that is more acceptable. A clear picture of these patterns is not available across the country, as they could be dependent on specific local conditions and may be subject to rapid change.

Mild (e.g. fear, somatic complaints), moderate (e.g. anxiety, conversion disorder, trauma), and severe (e.g. schizophrenia, bipolar disorder, epilepsy) MHPS problems/illnesses may be addressed at government agencies (health posts), private agencies (hospitals, private clinics), and at NGOs. Most service providers reported that anxiety, somatic, and mood disorders were the most common complaints. Clients are often referred to Kathmandu for psychosocial care, especially those diagnosed with a severe mental disorder, because the doctors available in most districts are not specialized in psychiatry or psychological therapies [123]. Needs assessments in Nepal have demonstrated that while many people in areas of armed conflict do report psychosocial complaints and express distress from these symptoms, they are still not adequately familiar with psychosocial counseling to frame their help-seeking in terms of psychological symptoms. Children are a particularly hard to reach group as they will seldom present themselves for treatment [188].

Help-Seeking and Gender
There are myriad factors discouraging women from seeking help for mental health issues, particularly the culture of silence surrounding women's suffering, stigmatization, and the risk of damaging the family reputation. Healthcare providers also may be unsympathetic to and ignorant of women's rights. The widespread belief in evil spirits attacking women can lead to care seeking in the traditional rather than the formal sector [117]. Females are limited by their dependency on males for income [108].

Torture and Political Violence
CVICT has been providing medical and psychosocial support to survivors of torture in Nepal since 1990. The services are provided through the main center situated in Kathmandu, and sub-centers in Eastern and Western Nepal. The main center houses medical facilities, and provides counseling programs, and also receives referrals for complex cases from the sub-centers. Case management in these centers involves the provision of counseling, treatment of physical disorders, physiotherapy, and referral to hospitals when appropriate. In discussing barriers to service utilization, researchers observed that Nepali torture survivors tend not to seek formal help due to: security reasons, reliance on traditional forms of help, stigma, and limited accessibility to health care facilities [189].

Help-Seeking for Suicidal Behavior
Suicide remains illegal in Nepal and family members may be fined in case of non-survival, while the victim may be liable for incarceration in the case of survival. Despite these repercussions, families were found to take victims to health facilities or initiate home treatment first before seeking professional medical care. Delays in

treatment were often due to the long distances they had to travel to seek a hospital, and the cost of transportation. Health facilities have also been found to lack the resources for successful treatment [117]. Families usually only bring patients to the hospital as a medical emergency, are likely to hide previous episodes of deliberate self-harm, and may attribute suicidal death to other causes both for legal reasons and because the family of those with mental illness may face social rejection and discrimination [180]. Care is commonly sought from a traditional healer for symptoms of mental illness and it is only when physical symptoms are seen, such as after attempting suicide, that care from the formal sector is sought [117]. Less than 15% of people who completed suicide in Nepal had contacted a government health post worker prior to their suicide, but more than 40% had consulted a traditional healer. People draw on support from the extended family system. Only those with very severe illness who live close to a hospital will access specialist services [180].

Pharmaceutical Treatment and Psychiatric Help-Seeking

Nepal has seen a tremendous proliferation of private pharmacy retail outlets over the last 20 years [182]. Official estimates vary, but the concentration of such outlets is high, in urban as well as more rural areas. Both formal and informal channels exist for the distribution of pharmaceuticals in the private sector, and there is a need to look beyond the public formal channels – for example, the primary health care infrastructure – to fully understand this picture. The regulation of the pharmaceutical market, while structures are in place, remains underdeveloped and weak.

Anti-depressants, mainly amitriptyline and SSRIs, are available through prescription and directly over-the-counter. These products are marketed as branded generics, that is, the brands – produced by Nepali and Indian companies – are available and frequently prescribed using the branded names [182]. Branded drugs can be substituted for generics or other brands at these outlets. Frequently the brand names of drugs are written on pieces of paper and drugs will be dispensed without prescription. It is not clear that recommended prescribing practices are in place. Any review of available medications and market distribution patterns must take into account brand names, not just generic names, in order to get a clearer picture of drugs available in the market place in specific areas.

3.2 The mental health system

3.2.1 Mental health policy and legislative framework and leadership

Summary Points
- **There is no mental health act and the National Mental Health Policy is yet to be fully operational; several policy frameworks do make mention of mental health.**
- **Mental health services are unavailable at district and community level and essentially limited to a few hospitals, located in the larger cities.**
- **Mental health and psychosocial relief are not adequately addressed in the Health Sector Emergency and Disaster Response Plan of the Ministry of Health, but several concrete initiatives have taken place to plan for mental health and psychosocial support in emergency situations.**

Budget and Spending on Mental Health (MH) Issues

Less than 3% of the national budget is allocated to the health sector, putting the health budget at US$330 million in 2010. One percent of this was allocated to mental health[157] and 0.08% was actually spent on mental health [190].

General MH Policies and Legislation in Nepal 1996-2014

1996/97: National Mental Health Policy, Strategy and Plan of Action adopted. A stand-alone policy or plan for mental health exists in Nepal, developed in 1996/7, and revised in 2004. The policy/plan is partially implemented [191].

2006: Legislation to protect the human rights of people with mental illness was drafted, but has not yet been endorsement by government [168].

2010: The National Health Sector Programme (NHSP-II) included MH in the "essential health care" programme. This plan is applicable until 2015.

2014: Nepal formulated the Multi Sectoral Action Plan for Prevention of Non-Communicable Diseases 2014-2020, positioning MH as a priority area [192].

Specific MH Issues Addressed in Current Policy and Legislation
Disaster Mental Health: Nepal has a Natural Calamity Relief Act and has included disaster management in its Ninth Plan [193]. The Nepal Government has adopted the UN's Humanitarian Reform Framework, and a working group was established to develop MHPSS in emergencies [190].

Gender-Based Violence: The Legislature Parliament passed the Domestic Violence Act in 2009, and the Action Plan against Gender-Based Violence in 2010.

Human Rights: Nepal is involved with 16 international human rights instruments, including the Convention on the Elimination of all forms of Discrimination Against Women (1979). A stand-alone law for mental health is not available and mental health legislation is not integrated into general health or disability laws [191].

Gaps and Inadequacies in MH Policy and Legislation
There is no mental health act and the National Mental Health Policy is yet to be fully operational [169]. Further, there are specific areas in which mental health policy/legislation has been identified as missing or inadequate:
- Disaster mental health: Despite policies on disaster mental health mentioned above, mental health and psychosocial relief are not adequately addressed in the Health Sector Emergency and Disaster Response Plan of the Ministry of Health [4]. Satapathy [193] states that Nepal has not included disaster psychosocial care and mental health service provision either at the policy-, or national-level disaster management planning.
- Children's mental health: There is a lack of specialized services, including mental health programs, focused on children [192].
- Suicide: Poor quality registration systems cause mis-categorization and underreporting of suicide in police data; this is possibly also due to suicide being stigmatized and illegal in Nepal [117].

Policy-Related Challenges to Increasing MH Care Coverage
Challenges to increasing mental health coverage include: 1) lack of implementation of the policy framework into practice; 2) lack of endorsement of mental health legislation; 3) lack of mental health division in the Ministry of Health Policy or Department of Health Services; 4) absence of a long-term mental health strategy and program 5) insufficient budget allocation for mental health; 6) lack of national level epidemiological studies, resulting in a lack of estimates of the national prevalence of mental health problems [168]. The current policy/plan promotes the transition towards mental health services based in the community (including mental health care integrated into general hospitals and primary care) [191].

3.2.2 Description of formal mental health services

Summary Points
- **There is one hospital in the country, located in Kathmandu, exclusively devoted to psychiatric care. Outside of Kathmandu, there are four government hospitals, which offer psychiatric services these are located in Bharatpur, Pokhara, Nepalgunj, and Biratnagar (2013).**
- **The state run mental health facilities are approximately 400 beds, human resources consisting of 0.18 psychiatrists, 0.25 nurses, and 0.04 psychologists per 100,000 people.**
- **In Nepal, individuals and their families generally visit traditional healers to address mental health issues. Traditional healers are the most prevalent practitioners (1 traditional healer per 650 persons), whereas clinical psychologists are fewest in number in the country (1 clinical psychologist per 4.5 million persons).**

There is a wide gap between mental health need and mental health treatment in Nepal. This lack of access to mental health services and the lack of awareness and education related to mental health issues in the general population have been traced to high rates of morbidity and suicide. For example, in the first 10 months of 2010, the Nepali police recorded a total of 7,300 suicides [194]. The Christian charity United Mission to Nepal estimates that 25% of all outpatients attending primary health care services show some kind of mental or behavioural disorder, often presenting with multiple physical complaints [192]. However, data on actual prevalence levels of mental disorders and service use are almost non-existent [19]. To be able to fully address the problem this baseline data is crucial.

There is only one hospital in the country, located in Kathmandu, which is exclusively devoted to psychiatric care. The mental health hospital has a capacity of 50 beds (admission rate 3.58 per 100,000 population). The admissions during August 2012 to July 2013 included 431 Non Affective Psychosis, 298 Bipolar disorder and 51 Moderate to severe depression. 100% of total admissions were involuntary. 93.8% of cases discharged had a follow up within one month [191]. Outside of Kathmandu, there are four government hospitals which offer psychiatric services. These are located in Bharatpur, Pokhara, Nepalgunj, and Biratnagar [157]. During August 2012 to July 2013 a total of 26822 of visits were received at mental health outpatient facilities [191]. The state-run mental health facilities are inadequate with only approximately 400 beds. Human resources are also meagre consisting of 0.18 psychiatrists, 0.25 nurses, and 0.04 psychologists per 100,000 people [195]. In the Kathmandu Valley, there is one psychiatrist per 39,000 people, one psychologist per 126,000 people and one psychosocial counsellor per 35,000 people. Access to mental health professionals is significantly less in the rural areas, with only one psychiatrist per 266,000 people and one psychosocial counsellor per 209,000 people outside of Kathmandu [21]; this disparity is significant given that over 85% of the population still lives in rural areas [19]. Mobile mental health clinics have been used by some organizations (e.g., CMC, CVICT, TPO) to address this disparity. The latest data reported to the WHO Atlas include a total number of 22 professionals are working in the mental hospital. There are a total of 61 psychiatrists working in mental health in Nepal (0.22 per 100,000); 5 in mental hospitals, 50 in psychiatric wards in general hospitals, and 6 in other outpatient health facilities or services [191].

While treatment is free while admitted, the patient must pay for medicine after leaving the hospital. Very few mental health patients have access to government-subsidized psychotropic drugs, which are otherwise unaffordable for most families [157]. The financial burden of mental health care costs thus falls entirely to the family [196]. As described in sections 3.1.9 and 3.1.10, many Nepali people visit traditional or folk healers to address mental health issues. As discussed in section 3.1.7, a number of non-governmental organizations are also involved in MHPS care provision.

Training is also a necessary component to bridge the treatment gap. Due to lack of resources and funds, scaling up the mental health service to include and train more professionals may not be realistic. Therefore, some

organizations have opted to train non-professionals in mental health skills to fill the gap. The **Pr**ogramme for **i**mproving **m**ental health car**e** (PRIME), a DIFID funded project, incorporates training in primary care and of community health workers using a locally developed Mental Health Care Package. This encompasses the mental health Gap Action Programme (mhGAP), psychosocial skills modules, and brief modified versions of behavior activation (the Healthy Activity Program, HAP) and motivational interviewing (Counselling for Alcohol Program, CAP) from PREMIUM [197].

An additional challenge is that health professionals are not adequately trained in mental health in Nepal. The majority of doctors and nurses have not completed "official in-service" mental health training during the last five years [195]. Therefore, both access to, and effectiveness of, care may be compromised. Psychiatrists often take a narrow, traditional view on treatment and focus on medication management of symptoms.

Nepal's health system is fragile due to frequent natural disasters and the recent political conflict, which has diverted government, medical, and NGO interest away from mental health. Stigma and negative attitudes toward mental health were thought to be among the most important challenges to accessing care [163, 198]. Families may also suffer rejection and lack of understanding by the community because of the mental illness of one of its members, to the extent that daughters in an affected family may not be able to marry because it is feared that they are contaminated.

One solution suggested by an IASC task force has been the integration of mental health services in Primary Health Care (PHC). Recommendations for a monthly case conference by a psychiatrist from the district hospital have been put in place to bridge the gap of the current lack of mental health supervision in the existing health care system. Collaboration with the National Health Training Centre (NHTC) has been initiated to conduct training and accredit training certificates for primary healthcare (PHC) workers. A referral system has now been developed with district hospitals for severe cases in need of specialized care [168].

3.2.3 Coordination of government, private sector, NGOs, and traditional healers in providing mental health care

Summary Points
- **The current National Mental Health Policy for Nepal aims to: (1) ensure minimum mental health services for all Nepali population by the year 2000, (2) develop human resources through training programs for specialist and general health workers, (3) protect the human rights of the mentally ill, and (4) improve awareness about mental health.**
- **Traditional healers are most often the first point of call for individuals with mental illness**
- **The traditional healing system is considered lacking in clear organization and results in large out-of-pocket expenditures for patients.**
- **There is a general lack of infrastructure to support mental health services, resulting in poor drug supply at grass root level and poor referral pathways from primary to tertiary services.**
- **NGOs are providing community level services. Combined, these organizations have trained hundreds of psychosocial workers, the vast majority of whom have completed short courses.**
- **NGOs face issues of sustainability due to high staff turnover, and the fidelity of services are hard to regulate due to the lack of a formal accredited training system.**

Overview
Although the government has formulated mental health policy, this is currently not being implemented [199]. As a whole, the Nepali government has not been fully able to provide adequate mental health services to the

population. Moreover, the emphasis on a pro-government agenda often restricts NGOs in their efforts to fill the service gap [145]. NGOs based in Nepal are noted to have a strong understanding of local context, good access to communities, and the ability to mobilize resources quickly for marginalized populations [171]. The fact that most funding for NGOs is project-based limits central funding for contingency planning in disaster response. This lack of NGO emphasis in turn reduces government focus and role in contingency planning, as the focus of the two sectors are interconnected in mental health [200].

Role of the government
Government specialist services for common and moderate to severe mental disorders are typically delivered through general hospital psychiatric clinics [169]. The most common treatment within the mental health system is psychotropic medication; however, psychotherapy, CBT, and electroconvulsive therapy are available in specialist care [169]. Mental health services within primary care are primarily clinic-based and delivered by medical doctors, though the capability of these professionals to diagnose mental illness has been questioned [168]. A *Field Implementation Manual* on psychosocial support has been developed to provide support to victims of conflict, detailing the structure of the psychosocial counseling and support services program [201].

The current National Mental Health Policy for Nepal aims to: 1) ensure minimum mental health services for all Nepali population by the year 2000, 2) develop human resources through training programs for specialist and general health workers, 3) protect the human rights of the mentally ill, and 4) improve awareness about mental health [161]. The strategies proposed to achieve these aims include: interacting with community structures (such as schools, traditional healers and NGOs), training existing field health workers, utilizing a community-based rehabilitation approach, incorporating mental health training into health workers' curricula, developing specialist training programs for mental health professionals, and developing a Mental Health Act [161].

Currently, less than 2% of the country's healthcare budget is allocated to mental health services [192] and, as late as 2007, there were no national morbidity data for mental illness in primary or secondary health care [196]. The main overall source of funds for care and treatment of severe mental disorders in Nepal is households (e.g. direct out-of-pocket payments and private insurance); this is followed by government (e.g. national or sub-national public health insurance/reimbursement schemes) and non-governmental organizations (for-profit and not-for-profit). The total government expenditure on mental hospitals (between July 2013-June 2014) in Nepali rupees is 2.5 Crores [191]. Psychiatric services within government hospitals are limited to Bharatpur, Pokhara, Nepalgunj and Biratnagar [94].

Role of NGOs
Many private organizations and NGOs contribute and/or deliver mental health training, which has resulted in 500-750 psychosocial workers completing basic counseling and psychosocial support training (4-6 month duration) in the past few years; however, only some training is geared towards working with children affected by conflict [21, 31, 178, 202]. Training typically includes understanding the individual's perceptions of psychological distress, providing psycho-education, and relieving physical symptoms of mental distress through emotional support [203]. A National Mental Health Network has been established to encourage governmental action to create a department of mental health, promote human rights and increase mental health and psychosocial support [200]. The role of NGOs is of crucial importance as they increasingly contribute to national-level policy development, such as the input of the MHPSS Working Group in implementing a contingency plan for mental health within the national emergency response system [171, 190]. Unfortunately, NGOs face issues of sustainability due to high staff turnover, and the fidelity of services are hard to regulate due to the lack of a formal accredited training system [171].

Role of traditional healers (see also section **3.1.9 Role of non-allopathic medical services**)
Traditional healers are most often the first point of call for individuals with mental illness, who typically seek emotional relief [123, 169]. Most traditional healers operate independently of the formal mental health care system; however, traditional healers in some regions are being trained in mental health, resulting in increased

referrals to formal mental health services. Other non-allopathic healthcare providers include naturopaths, homeopaths and Ayurvedic practitioners, who are organized into associations [169]. Overall, the traditional healing system consists of different types and traditions and therefore does not have a formal organization and can result in large out-of-pocket expenditures for patients. These patients in turn often eventually seek help from formal mental health services with exacerbated mental health symptoms [169].

4 Humanitarian context

4.1 History of humanitarian emergencies in the country

Summary Points
- **Nepal is highly vulnerable to natural disasters including floods, landslides, epidemics, earthquakes, and has experienced a 1996-2006 armed civil conflict between the Government of Nepal (The Royal Nepal Army "the RNA") and Communist Party of Nepal ("the Maoists").**
- **The Kathmandu Valley is located in one of the most seismically active areas in the world. Building codes in Nepal are considered insufficient for earthquake resilience and most homes are owner-built, and do not confirm to building codes.**

Humanitarian Emergency and Disaster preparedness
The Nepal Risk Reduction Consortium led preparedness efforts for natural disasters in and around Kathmandu Valley [7]. In November 2014, the Nepal Red Cross Society created an Earthquake Contingency Plan which provides specific information about the operating context, the response structure, the operational areas, and its internal/external resources [7]. In 2010, disaster preparedness entered the school curriculum [8, 164]. Despite the availability of technology, only 700 of 38,000 schools in Nepal underwent disaster-proof initiatives [8, 164]. The British Red Cross has employed geographic information systems mapping (GIS) combined with topographical maps to facilitate discussions with government stakeholders, communities, and other agencies about disaster vulnerabilities and preparedness [204]. In some urban settings, urban-specific tools and an urban assessment method have developed, but this is in no way widespread [204]. The Tsho-Rolpa is the only glacial lake in Nepal where a GLOF mitigation program has been launched [12].

4.2 Experiences with past humanitarian aid in general

Summary Points
- **Humanitarian aid organizations have had a strong presence in Nepal over the last few decades, largely responding to past conflict and natural disasters.**
- **Overarching themes have emerged from the literature: the importance of cooperation and competent coordination, planning for sustainability from outset, consider vulnerable groups and setting characteristics, address daily challenges in parity with disaster response, and avoid potential adverse consequences of aid.**
- **Children are not adequately considered in disaster risk reduction programming**

Overview
Humanitarian aid organizations have had a strong presence in Nepal, largely responding to past conflict and natural disasters. The first emergency consolidated appeal for Nepal was launched in September 2005 to deliver emergency reproductive health services for conflict affected populations, following high maternal mortality

rates [87]. Organizations like the International Federation of Red Cross and Red Crescent Societies (IFRC), World Vision, and the WHO often work in collaboration with the Nepal government to provide relief in the midst of disaster and displacement. Valuable humanitarian knowledge and resources have been gained from these efforts, the results of which should be utilized and built upon when formulating disaster preparedness, risk reduction, and humanitarian action.

Cooperation and Coordination
The need for strong cooperation and coordination, both across NGOs and with the government, is a consistent theme within humanitarian aid literature. Shortly after monsoons caused mass flooding and landslides in 18 Nepali districts in August 2014, the IFRC worked with the government and other NGOs to establish an emergency operation center, conduct situational analyses, and provide immediate relief resources to rural villages. Through coordination and by the IFRC focusing on basic needs of villages (e.g., food, water, sanitation, and hygiene services), the government was able to focus on search-and-rescue missions and other pressing needs [205].

Cooperation was also emphasized when exploring differences in national and local perspectives of research priorities within the humanitarian sector [206]. The authors identified major needs, such as conducting rapid assessment before program implementation, understanding differences in needs at the national and community levels, and recognizing the limitations of programs implemented from the top down without consulting local workers. Cooperation and coordination can also help to ensure sustainability of humanitarian programs through implementation into state systems.

Evaluation
Another recurring theme is the need for ongoing monitoring and evaluation of humanitarian programs. Operational information systems for health and other relevant indicators are intrinsic to a governing body's ability to carry out such evaluations. In an analysis of a program to support health, nutrition, water, and sanitation activities in a Bhutanese refugee camp in Nepal, the UNHCR noted the failure to collect and utilize routine data within the camp as a major concern. Ultimately, this issue undermined the agency's ability to respond to the needs of the population [207]. The Southeast Asia Regional Office of the WHO also identified the presence of established information systems for disaster preparedness and response as a key facilitator in reducing the disaster risk associated with seismic activity [208].

Adverse Consequences
Unintended consequences have been reported as a result of humanitarian action in Nepal. For instance, Singh, Dahal, and Mills [209] argued that it is not possible for NGOs to proceed with a development agenda during war while simultaneously providing humanitarian relief. Humanitarian relief programs should be neutral and independent, while development agendas seek to overcome structural inequities that can be both cause and conditions of war. If developmental and humanitarian agendas are combined, the development programs may endanger the provision of humanitarian relief. Aid can be unbalanced in its distribution, with rural and heavily controlled areas receiving less provision and even some NGOs shutting down because of risk to staff [210]. The conflict in Nepal has possibly been exacerbated by developmental assistance of NGOs who unintentionally have widened the rural-urban gap.

4.3 Experiences with past humanitarian aid involving mental health and psychosocial support

Summary Points
- **The Government of Nepal lacks a focal point for emergency mental health and psychosocial support**
- **After a 2005 complex emergency the response mechanism showed to be weak; however, as a result of past trainings, the health system was able to cope with the emergency**

- **Psychosocial and mental health programs have been set up in previous emergencies, including those for former child soldiers, for families of long-term missing people, for refugees**
- **In 2009 a project focused on the adaptation and application of the IASC Guidelines for Mental Health and Psychosocial Support in Emergencies**

Context overview

Engaging government stakeholders in preparation activities has proven difficult in the past as there is no designated focal point for dealing specifically with MHPS issues [190]. Infrastructure and human resources in the field of mental health remain limited (see section 3. 2.2).

Descriptions and Lessons from Previous Emergency Responses

Complex Emergency Response: In 2005, a complex emergency arose as a result of landslides, fires, epidemics and the civil war. This tested the Health Sector Emergency Disaster Response Plan, which includes MHPSS. Acharya and colleagues [4] noted that while this response mechanism was weak, as a result of past trainings, the health system was able to cope with the emergency.

Child-Focused Support: Adhikari and colleagues (77) evaluated rehabilitation support provided to child soldiers. Four packages were offered: 1) support for formal education; 2) training and financing for micro-enterprise; 3) vocational skills training; and 4) training and education in the health sector. Analysis demonstrated no observed benefits in terms of mental health (PTSD, depression and anxiety), but found that social support positively influenced mental health.

A UNICEF study [21] observed that children's everyday contexts played as much of a role in mental health outcomes as their experiences during the war. An intervention for child soldiers delivered by Community Psychosocial Workers (CPSW) aimed to raise awareness about children's mental health, promote inclusion and acceptance of discriminated children, and provide care for children and families in need. CPSWs implemented the program which enabled wide community reach. The intervention included sensitization and awareness-raising programs and targeted key community individuals that could prompt behavior changes in the community (usually teachers) [178].

Support to Families with Long-Term Missing Family Members (4+ years): The ICRC in 2010 launched "Hateymalo" ("join hands together"). The program offered psychosocial support to families of persons still missing after the end of the civil war in 2006. The ICRC in partnership with a local NGO created a "solidarity" network of organizations offering support ranging from mental health counseling to economic opportunities and legal assistance. By 2012 the program had reached 700 families in 16 districts.

Application of IASC Guidelines for MHPSS in Emergencies in Nepal: A case study on application of the 2005 IASC Guidelines for MHPSS in emergencies identified challenges to effective implementation including: a lack of MHPSS organizations, a lack of awareness of the IASC Guidelines, and poor coordination. This exercise included undertaking a rapid assessment to identify existing services and gaps, translation of guidelines and field guides into Nepali, and drafting standard operating procedures [190]. In guideline translation, challenges arose due to a government preference for "official" Nepali versus "lay" Nepali used by non-governmental bodies [190] . The members of the coordination group themselves rated their comprehension level on average at 6.5, where 0 was no comprehension and 10 was complete comprehension [200]. The strength of this process was the range of organizations involved; however, the government was not an active partner [200]. Also reported were mixed levels of awareness of contingency plans amongst NGOs and community-based organizations, as well as duplication, with some organizations having their own contingency plans [200]. The group succeeded in minimally engaging government officials in these efforts, but only after much advocacy [190].

Integrated Vocational and Psychosocial Support: The Swiss Agency for Development and Cooperation in 2006 provided an integrated program of vocational training courses with bi-weekly facilitated psychosocial meetings for men. Group facilitators were non-specialists supervised monthly by a psychiatrist [211].

Lessons for Conducting Research/Monitoring and Evaluation of MHPS Services Post-Emergency
Four key principles were listed based upon experience in conducting research with child soldiers [158]:
  (1) *Do no harm:* Avoid disclosure of children's status as former child soldiers. Provide universal services that involve child soldiers and civilian children, so that former soldiers cannot be identified. Use normative language related to Nepali concepts of health and mind to avoid stigma.
  (2) *Balance research costs and benefits:* MHPS interventions must not be isolated; child soldiers do not only prioritize MHPS, but also education and poverty relief.
  (3) *Connection to intervention:* Use participatory methods to avoid research that does not lead to interventions. Do not undertake interventions without prior research and that are not evidence-based. Research is needed to understand how to most efficiently allocate resources.
  (4) *Transition from relief to development.* Consider long term and sustainable development of mental health services and design interventions that address chronic social problems.

5 Conclusions

5.1 Expected challenges and gaps in mental health and psychosocial support

1. Social stratification including caste-discrimination may be a barrier to equitable delivery of services.

2. Gender-based discrimination may be a barrier to economic, educational, and other resources being provided to women and girls; there are higher rates of mental health and psychosocial problems in women in previous studies, high rates of human rights abuses against women, structural gender discrimination, and high rates of SGBV.

3. Family composition changes after international labor migration are a challenge because much of the burden of rebuilding will be placed upon women, adolescents, the sick, and the elderly because many healthy, young adult and middle-age men are not in rural communities.

4. The lack of infrastructure to access rural areas will make delivery of care and services challenging. Roads to many areas are limited, often in disrepair, have a high burden of motor vehicle collisions, and are worsened during the monsoon season.

5. A history of human rights abuses that may be exacerbated during the earthquake, such as human trafficking, may be a challenge.

6. The high burden of mental illness prior the earthquake may be a challenge when providing post-earthquake services. MHPSS will need to address both ongoing MHPS problems as well as those following the quake. Moreover, MHPS problems prior to traumatic exposure increase the risk of PTSD, substance abuse, and other MHPS problems after trauma.

7. Political instability may hamper institutionalization of mental health and psychosocial services overall across all domains (e.g. education).

8. Inconsistent and incomplete provision of essential medications by the government creates a challenge for treating severe and persistent mental illness and epilepsy.

9. Among INGOs, a history of separating mental health vs. psychosocial support will be a challenge for coordinated, multi-tiered care to address the full range of MHPSS needs.

10. Lack of attention to MHPSS in other than health sectors (e.g., in education, lack of trained teachers) is a challenge.

11. A major challenge is how to ensure lessons learned translate to future disaster preparedness and rebuilding of MHPSS better than they were prior to the disaster

12. Collapsed health care facilities poses a risk for initiation or continuation of treatment, especially for the care of people with severe and persistent mental illness.

5.2 Expected opportunities in mental health and psychosocial support

1. The earthquakes and associated humanitarian emergency response are an opportunity to "building back better" in health and education sectors.

2. Prior trainings, materials, and mental health and psychosocial human resources are a key resource for the current response.

3. Prior work developing ethno-psychological frameworks for adaptation of psychological treatments and documentation of appropriate language and terminology can facilitate culturally-appropriate and non-stigmatizing care and help link mental health and psychosocial domains.

4. The strength and maturity of the NGO sector may facilitate coordination among NGOs (with several organizations specialized in mental health and psychosocial care), between NGOs and local communities, and between NGOs and government bodies.

5. Several psychosocial interventions and protocol have been adopted by agencies of the Government of Nepal, including a curriculum for training of counsellors.

6. Prior lobbying for strengthening policy framework provides a foundation for additional efforts for MHPSS lobbying after the earthquake and can be used to utilize to integrated mental health care in primary care and other health care settings.

7. Recent programs have developed a framework, as well as concrete materials, for the integration of mental health into primary health care (e.g., Nepali WHO mhGAP Guidelines).

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