An Investigation into Suicides among Bhutanese Refugees in the US 2009 – 2012

Stakeholders Report

Trong Ao, ScD, MSc (EIS Officer)
Eboni Taylor, PhD, MPH (EIS Officer)
Emily Lankau, DVM, PhD (EIS Officer)
Teresa I. Sivilli, MPH (Researcher)
Curtis Blanton, MS (Statistician)
Sharmila Shetty, MD (Medical Epidemiologist; Co-Principal Investigator)
Barbara Lopes-Cardozo, MD, MPH (Medical Epidemiologist; Principal Investigator)
Centers for Disease Control and Prevention

Jennifer Cochran, MPH
Heidi Ellis, PhD
Paul Geltman, MD, MPH
Refugee Health Technical Assistance Center
Massachusetts Department of Public Health

18 OCTOBER 2012

Executive Summary

From February 2009 to February 2012, the Office of Refugee Resettlement (ORR) of the United States Department of Health and Human Services reported 16 suicides among Bhutanese refugees who resettled in the United States. ORR requested that the Refugee Health Technical Assistance Center (RHTAC) of the Massachusetts Department of Public Health and the Centers for Disease Control and Prevention (CDC) conduct an investigation of the multi-state cluster of suicides in this population.

The main objectives of the investigation were to 1) describe suicides that have occurred; 2) identify factors associated with suicidal ideation; and 3) formulate recommendations for stakeholders to prevent additional suicides.

Sixteen confirmed suicides occurred from February 2009–February 2012 in 10 states, of which we were able to obtain data on 14. Nine suicides occurred in men, and five were women; most were below 50 years of age and arrived in the United States less than one year before death. Thirteen suicides occurred by hanging. The most common post-migration difficulties reported included: language barriers (77%), worries about family back home (57%), separation from family (43%), and difficulty maintaining cultural and religious traditions (43%).

We conducted a community-based cross sectional survey of 423 resettled refugees to determine the prevalence of suicidal ideation and other mental health conditions. The survey was conducted in Arizona, Georgia, New York, and Texas; the participation rate was 73%. The prevalence of reported suicidal ideation was 3% in the survey sample. This is lower than expected (about 8% in other populations), and we believe this is an underestimation due to stigma and sensitivity of the topic. In our survey we found the prevalence of symptoms of anxiety was 19%, of depression, 21%, and of distress, 17%. The estimated prevalence of PTSD symptoms was 4.5%. This is higher than the 12-month prevalence of depression (6.7%) and PTSD (3.6%) of adults in the United States. Significant risk factors for suicidal ideation included: not being a provider of the family (i.e. a person whose expected role is to be financially responsible for the family, regardless of current employment status); having low perceived social support; screening positive for anxiety, depression, and distress; and increased family conflict after resettlement.

Key recommendations are made for local resettlement networks, community mental health providers, ORR and other partners. In brief, the recommendations include:

- Provide support services to families and communities affected by suicide to minimize contagion
- Standardize reporting of suicides and suicide attempts
- Facilitate connections between suicide prevention programs and refugee resettlement communities/networks
- Develop increased capacity at mental health service agencies to serve refugees in crisis
- Enhance mental health screening of refugees
- Expand mental health services for recently arrived refugees to address anxiety, depression, distress and PTSD
- Strengthen community structures and expand programs for newly arrived persons that address post-resettlement isolation, non-clinical interventions in the context of Bhutanese culture, vocational training and community engagement
- Implement community-based suicide prevention training and intervention activities

A. Introduction

Background

Bhutanese Refugees

Bhutanese of Nepali origin – known as Lhotsampas ("People of the South") – have been living in Bhutan since the 19th century, and have maintained distinct cultural and religion traditions for over five generations. In the mid-1980s, Bhutan's king and the ruling Druk majority implemented a "One Country, One People" campaign, which aimed to unify the country under the Druk culture, religion, and language.[1] The Lhotsampa protest against these policies was met with a brutal government crackdown, resulting in the flight of over 100,000 to refugee camps in neighboring Nepal, where they have been living since the early 1990's. Resettlement to third countries began in 2008, and to date, over 49,000 Bhutanese refugees have been resettled in the United States.

Statement of the Problem

From February 2009 to February 2012, the Office of Refugee Resettlement (ORR) of the United States Department of Health and Human Services (DHHS) reported 16 suicides among Bhutanese refugees who resettled in the United States. A handful of suicides have also occurred in this time period in other resettled refugee populations in the United States, including immigrants from Burma, Somalia and Burundi, but not as frequently as in the Bhutanese community.

At the time the suicides in the United States were being identified, agencies in the refugee camps in Nepal identified a high number of suicides attempts and deaths among the Bhutanese refugees there. In response, in 2010 the International Organization for Migration (IOM) conducted an assessment of the psychological needs and suicide risk factors of Bhutanese refugees in these camps.[2] They documented 67 suicides and 64 suicide attempts from 2004 to 2010. They also found an association between gender-based violence and a history of mental illness in the family with suicide, as well as a high prevalence of untreated mental health illnesses in this population. The report recommended that a similar assessment be conducted in the United States among resettled Bhutanese refugees.

Request for Assistance

In order to better describe the suicides that have occurred in the United States, and to understand risk factors that may be associated with suicidal ideation in this refugee population upon resettlement, and following the recommendation of the IOM report, ORR requested that Refugee Health Technical Assistance Center (RHTAC)[3] and the Centers for Disease Control and Prevention (CDC) conduct an investigation of the multi-state cluster of Bhutanese suicides.

[1] http://www.cal.org/co/pdffiles/backgrounder_bhutanese.pdf
[2] International Organization for Migration. 2011. Who Am I? Assessment of Psychological Needs and Suicide Risk Factors among Bhutanese Refugees in Nepal and after Third Country Resettlement.
[3] An initiative of the Massachusetts Department of Public Health and the ORR-funded technical assistance provider for refugee health and mental health; www.refugeehealthta.org

Program Implications & Public Health Significance

The magnitude of suicide and risk factors for suicidal ideation among Bhutanese refugees resettled in the United States is not fully understood. The findings from this study will be used to:

- gain a better understand the current underlying causes and associated risk factors for suicidal ideation in this population;
- determine if there is a need for guidance to refugee resettlement and health service agencies on the prevention of suicide and mitigation of psychological distress specifically among Bhutanese refugees; and
- raise awareness of suicide risk factors among Bhutanese refugees resettled in the US and increase use of mental health resources by this population.

B. Methods

Study Design

The investigation consisted of three main components.

1. Qualitative assessment: We conducted focus groups to gather data from key informants from the Bhutanese community to inform the development of culturally- appropriate questions, and the adaptation of existing survey instruments.

   Specific objectives were as follows:

   - to collect information on the way Bhutanese refugees experience and understand trauma, suicide, and mental health;
   - to gather information on Bhutanese refugee population characteristics (e.g. literacy, languages spoken/read), the best ways to approach participants, best places to conduct interviews;
   - to inform the development of instruments for the other two components of the investigation

2. Psychological Autopsies: These are standard procedures used to investigate a death by interviewing a close contact of the deceased with the aim of reconstructing his/her mental state and actions before death. The Psychological Autopsies were conducted on each suicide case by CDC or state Refugee Health Program staff, with an interpreter when necessary. The questionnaire consisted of questions on demographics, mental health history, details of the suicide, post migration difficulties and standard validated tools such as Hopkins Symptom Checklist, the Harvard Trauma Questionnaire (described below), as well as open-ended questions. We consulted with resettlement agencies and Bhutanese community leaders in the respective communities where the suicides took place to identify close contacts (e.g. spouses, siblings, children, other family members, and friends) of the suicide victims with whom to conduct these interviews.

   Specific objectives were:

   - to describe the suicide circumstances (e.g. place, time, method) and gain an understanding of the suicide decedent's demographic and psychological characteristics as well as post migration experiences;

- to describe the cultural perspectives and experiences on suicide and use these to aid our interpretation of quantitative data.

3. Cross-sectional survey: We conducted a randomized survey of a representative sample of Bhutanese refugees to gain a better understanding of the mental health status of the overall Bhutanese refugee population in the United States.

   Specific objectives were:
   - to better understand post-migration difficulties, coping mechanisms, and perceived social support in U.S.-resettled Bhutanese refugees;
   - to collect and analyze information on the prevalence of suicidal ideation and symptoms of mental health conditions among U.S.-resettled Bhutanese refugees;
   - to identify factors associated with suicidal ideation.

   We randomly selected a total of 579 Bhutanese refugees from seven cities in four states: Georgia (Atlanta), New York (Buffalo, Syracuse), Arizona (Phoenix, Tucson) and Texas (Dallas/Fort Worth, Houston). These states were chosen because of their high number of resident Bhutanese refugee, and because a number of the suicides had occurred in these states (except Georgia). Inclusion criteria were being Bhutanese refugees 18 years or older who resettled in the four states from January 1, 2008 to November 17, 2011. Exclusion criteria for all study components included declining to consent, not completing the interview due to physical or mental impairment, or inability to complete the study questionnaires in English or Nepali. We determined the number of refugees to be selected for each state based on the population of the resettled Bhutanese refugees for that state in order to obtain representativeness of the sample.

   Surveys were conducted face to face by a trained interviewer in the Nepali language in the participant's home. Interviewers were recruited from the Bhutanese refugee community in each city; they were recommended by resettlement agencies. Interviewers participated in two day training in each city. Training included research ethics, interviewing skills, how to deal with potential distressed respondents, and how to handle difficult situations in the field. Up to three attempts were made to visit the selected participants. CDC staff members were on site to supervise and manage enrolment and data collection at all times. Interviewers met with CDC staff each week of data collection for data quality assurance and feedback. In each state, names of mental health professionals available for referral were provided to all participants.

   The questionnaire included questions on demographics, mental health history and substance use, experiences with suicide, post migration difficulties[4], and coping mechanisms.[5] In addition, we used a number of validated, standardized tools to assess mental health outcomes and other risk factor for suicide.

[4] Laban CJ, et al. 2005. Post migration living problems and common psychiatric disorders in Iraqi asylum seekers in the Netherlands. 193(12):825–32.
[5] Amirkhan, JH. 1990. A factor analytically derived measure of coping: The Coping Strategy Indicator. Journal of Personality and Social Psychology, 59, 1066–1074.

These include the following:

a. Perceived Social Support: was used to assess how the participant perceives the current social support level provided by his/her social network. A social support score was calculated by summing up items from the Perceived Social Support scale. The score ranged from 0 (no perceived social support) to 48 (maximum perceived social support).

b. Hopkins Symptom Checklist[6]: was used to assess symptoms of anxiety, depression, and distress (the combination of anxiety and depression scores).

c. Harvard Trauma Questionnaire[7] was used to accomplish the following:
    1. enumerate traumatic events experienced in Nepal/Bhutan;
    2. assess symptoms of post-traumatic stress disorders (PTSD). The definition of PTSD requires all of the following conditions: at least 1 of 5 re-experiencing symptoms; at least 3 of 7 avoidance or numbing symptoms; and at least 2 of 5 arousal symptoms.[8]

d. Interpersonal Needs Questionnaire[9]: The INQ is a standardized tool to measure participants' beliefs about the extent to which they feel connected to others (i.e., belongingness) and the extent to which they feel like a burden on the people in their lives (i.e., perceived burdensomeness).

Statistical Analysis

For categorical variables, we performed frequencies report proportions in each category, stratified by sex. We used chi-square test with significance level of $p < 0.05$ to detect statistical differences between men and women in the sample. For continuous variables, we report medians and ranges and performed the Wilcoxon rank sum test for differences in medians between men and women.

To assess factors associated with suicidal ideation, we conducted conditional logistic regression to account for our proportional sampling strategy. We examined bivariate crude and adjusted associations between suicidal ideation and potential risk factors and estimated sex, age, and state-adjusted odds ratio and associated 95% confidence intervals. We defined suicidal ideation as "ever seriously thought about suicide in the past." We identified individuals from the survey who reported ever having had suicidal ideation, i.e. ever thought seriously about committing suicide, and compared them with those who did not report ever having suicidal thoughts.

---

[6] Parloff MB, et al. 1954. Comfort, effectiveness, and self-awareness as criteria for improvement in psychotherapy. American Journal of Psychiatry. 3:343–351.
[7] Mollica, RF, et al. 1992. The Harvard Trauma Questionnaire: Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. Journal of Nervous and Mental Disease, 180, 111–116.
[8] Mollica RF, et al. The effect of trauma and confinement on functional health and mental health status of Cambodians living in Thailand-Cambodia border camps. *JAMA*. 1993;270:581–586.
[9] Van Orden, KA, et al. 2008. Suicidal desire and the capability for suicide: Tests of the interpersonal-psychological theory of suicidal behavior among adults. J Consult Clin Psychol. 2008 Feb;76(1):72–83.

Human Subjects Protection

This study was approved by the CDC's Institutional Review Board (CDC approved protocol #6211, expiration date 01/11/2013). Names of participants were not recorded other than to compile the population framework list of eligible participants. Written informed consent was obtained; those participants who were not able to read and write provided verbal consent.

C. Results and Key Findings

Psychological Autopsy Findings

Of the 16 confirmed suicides, 14 (88%) close contacts of the suicide decedent consented to be interviewed for the psychological autopsy; these were included in the analysis. The interviews were conducted in the following states: Arizona, Colorado, Kansas, Maryland, New York, Ohio, Pennsylvania, Tennessee, Texas, Washington (Figure 1).

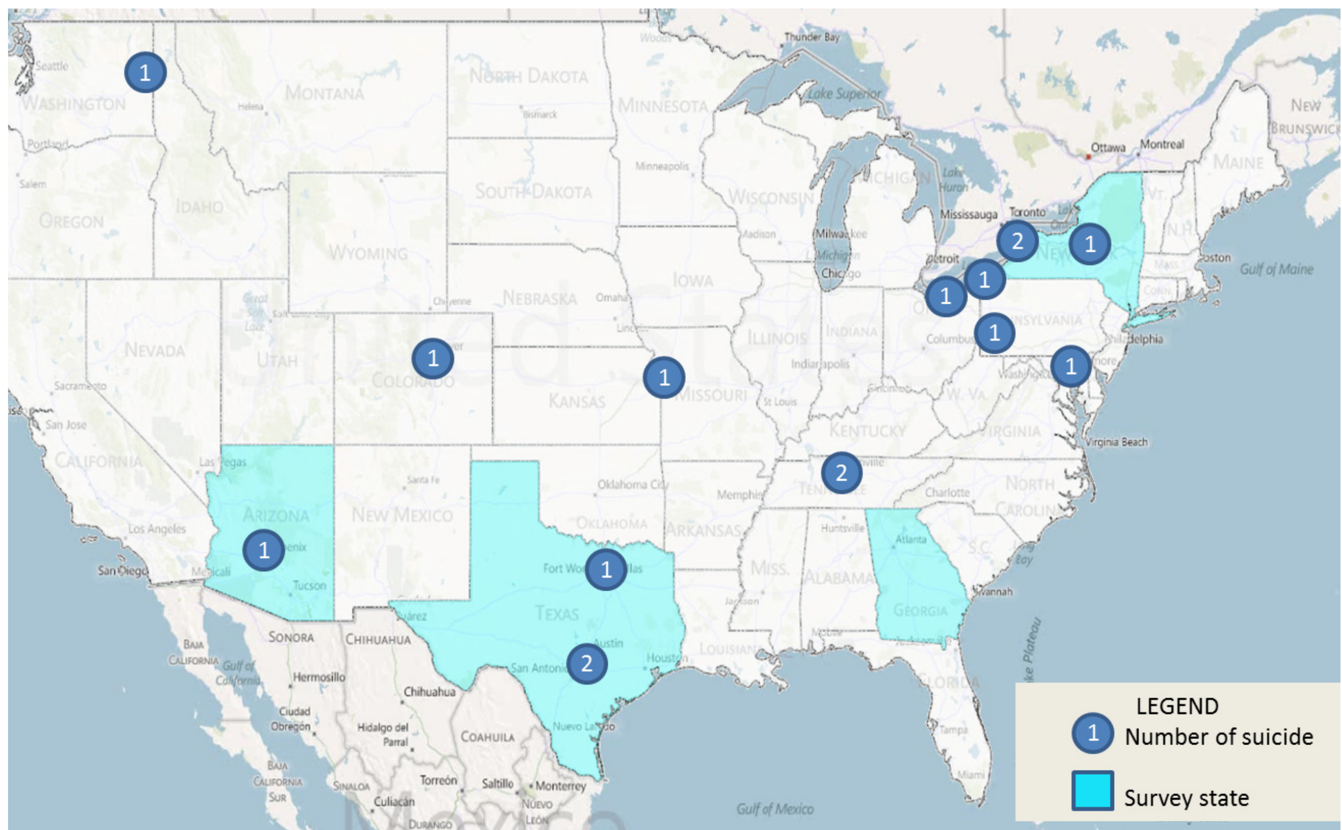


Figure 1. Location of suicide cases among Bhutanese refugees (2009–2012) and states where cross-sectional survey was conducted (2012)

Demographic characteristics of Suicide Decedents

Nine (64%) of the suicides were men; the median age at suicide for men and women was 34 years (Figure 2). Eleven (79%) were married, 9 (64%) completed primary or secondary school, and 11 (79%) were Hindu. Ten (71%) did not have a regular income, 8 (57%) were unemployed, and 10 (71%) were not providers of the family (i.e. a person whose expected role is to be financially responsible for the family, regardless of current employment status). Five (35%) were said to have been in fair or poor general health before death. The highest number of suicides occurred in 2010 (Figure 3). Median time from arrival in the United States to death was 5.6 months, but differed by gender (male = 7.4 months, female = 1.1 month) (Figure 4).

Figure 2: Suicide among Bhutanese refugees by sex and age at death (n=16)

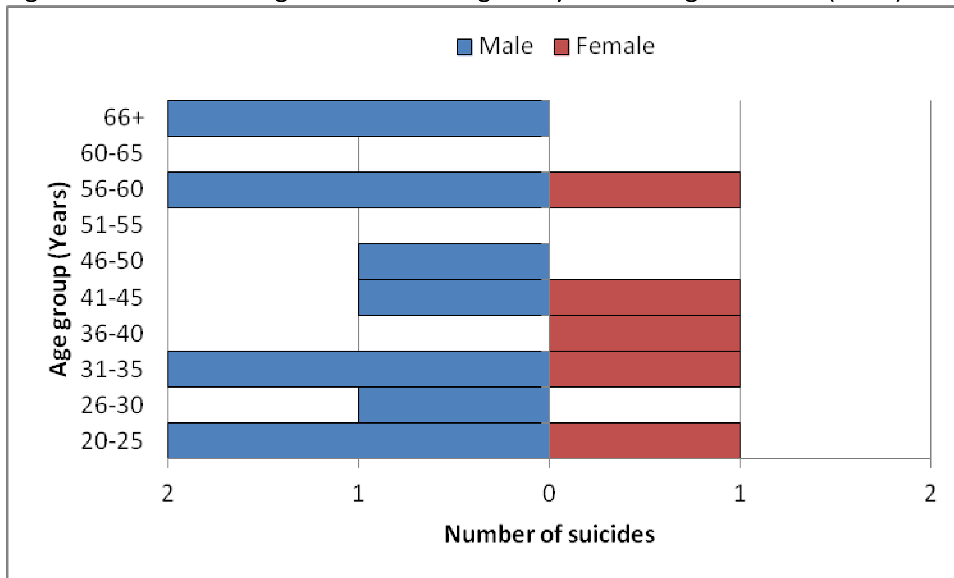
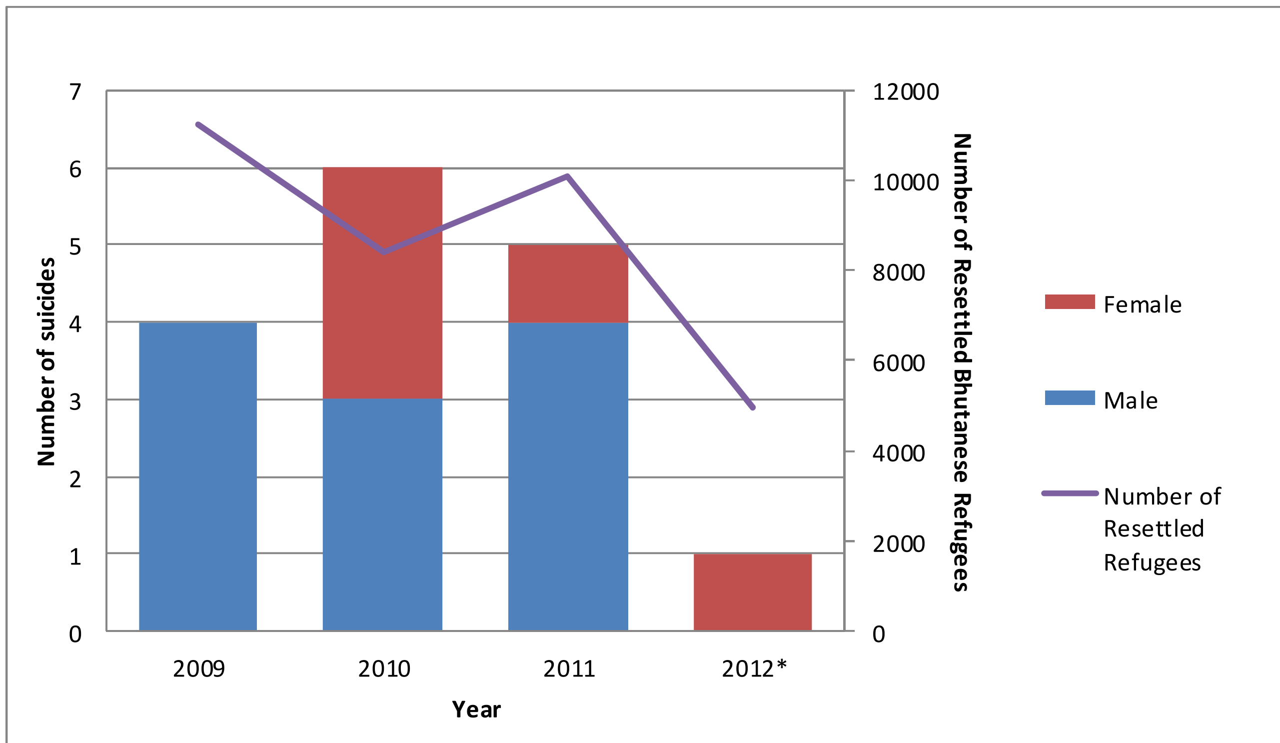
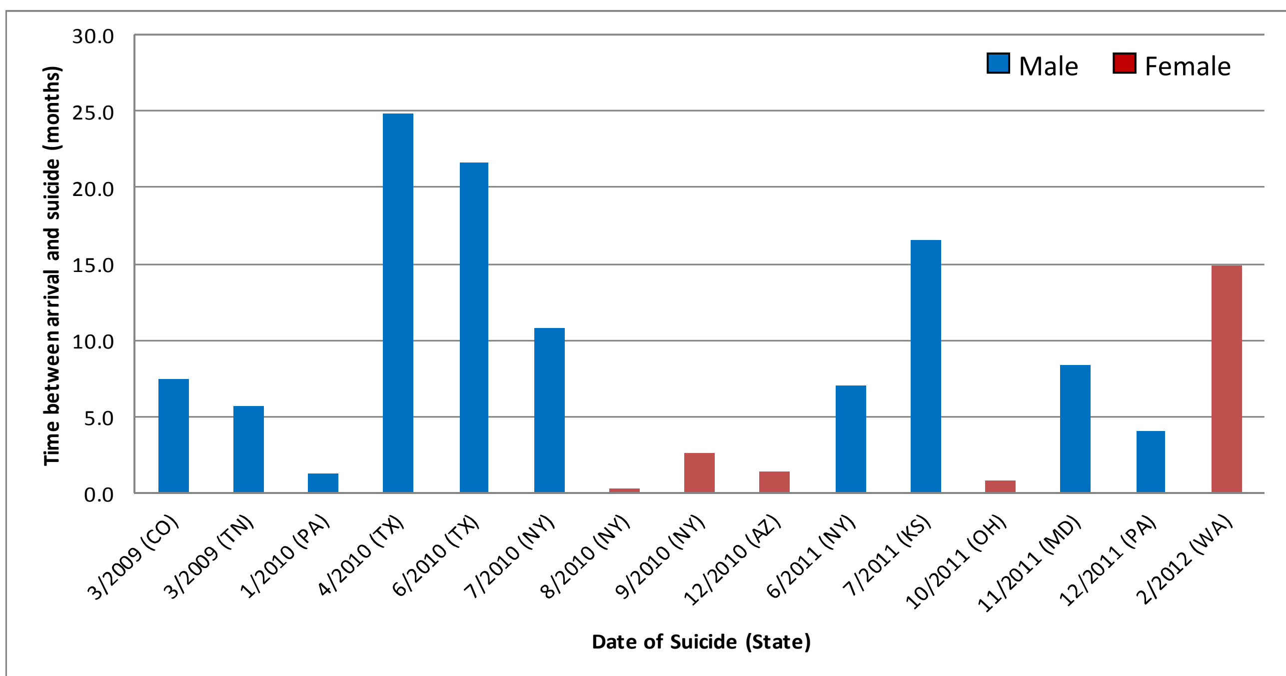


Figure 3: Suicide among Bhutanese refugees and number of resettled Bhutanese refugees in the United States by year, February 2009 – February 2012 (n=16)



*Three cases in 2012 occurred between April–July 2012 and were not included in the psychological autopsy analyses and do not appear in this graph. Number of resettled Bhutanese refugees in 2012 was up to February 2012

Figure 4: Time between arrival in the United States and suicide among Bhutanese refugees (n=15)



Median time between arrival and death – all: 169 days (5.6 months)
Median time between arrival and death – female: 33 days (1.1 month)
Median time between arrival and death – male: 223 days (7.4 months)

Details of Suicide

Thirteen persons committed suicide by hanging and one by means unknown. Ten (71%) suicides occurred at home, two (14%) at a friend's home, and two (14%) at locations unknown. Five (35%) suicides occurred while the deceased was completely alone, seven (50%) occurred while someone else was in another part of the house. One (7%) had ever talked about suicide. Two (14%) had consumed alcohol on the day of suicide. Eight (57%) respondents thought the suicide was not planned, and 6 (46%) did not remember any warning signs preceding the suicide.

Mental Health and Family History

Three (21%) had previously attempted suicide, and two (14%) suicide victims previously received treatment for a mental health condition. Two (14%) were thought to have been using illicit drugs. One (7%) case had a family member who was treated for a mental health condition, and seven (50%) had experienced the suicide of a family member or close friend.

Symptoms of Mental Health Conditions

Because of some respondents in the psychological autopsies did not know about mental status of the deceased, we were only able to assess symptoms of mental health conditions in a limited number of the 14 suicides. Four of 10 (40%) of suicide victims had reported symptoms suggestive of anxiety; three of five cases (60%) had symptoms suggestive of depression; two of five (40%) met the definition for being distressed; one of 13 (7%) met criteria for PTSD.

Trauma Events Experienced in Nepal/Bhutan

The most prevalent traumatic events experienced by the cases were lack of nationality or citizenship (77%), having to flee suddenly (69%), and lost property or belongings (62%).

Post Migration Difficulties

The most common post-migration difficulties listed included language barriers (77%), worries about family back home (57%), separation from family (43%), and difficulty maintaining cultural and religious traditions (43%).

Social Network and Quality of Relationships

Six (46%) respondents reported the deceased had a person to confide in, and 10 (76%) said the deceased had four or more friends. Among victims, thirteen (92%) had at least one social outing during the last month. Five (39%) were said to have had many friends, and two (15%) were thought to be isolated individuals. Eight (62%) had a spouse or other partner, and seven of those did not have a relationship difficulty. Twelve (85%) of the respondents reported that the suicide victims had no difficulty with family relationships.

Demographic characteristics of Informants

The relationships between informant (close contacts of the victim that was interviewed) and deceased were as follows: spouse (2), parent (2), sibling (1), other relative (4), son/daughter (3), and close friend (1); 9 (64%) informants were male. Thirteen (93%) had known the deceased for more than one year, 6 (43%) lived with the deceased, and 12 (86%) knew the deceased before resettlement in the United States.

Responses to open-ended questions

On opened-ended questions, the Psychological Autopsies revealed that some post-migration stressors might have played a role in the suicide:

"He was stressed about his new job, paying the bills and being able to support his parents."

"If all the family members could have been brought together not fragmented, this could have been prevented!"

"If she had got the chance to study, suicide would not have happened. "

"His wife [acculturated] differently – did not like this, he felt blamed. He could not adapt. Hard to communicate."

To the question "What could be done to prevent the suicide?" the responses included the following:

"Include new families in social and education opportunities."

"System navigator– someone to help with all the processes and changes."

"We need trainings on how to address psychological distress on a community level."

When asked about some of the warning signs, responses included the following:

"Talking very little and became quiet (15–30 minutes before suicide)."

"Change in mood: depressed, nervous, withdrawn."

"Anxiety; told family that he was frustrated with this place; used to get angry all of a sudden."

"Left gold earrings for daughter the day before."

Cross-sectional survey

Participation Rate

Of 579 randomly selected participants, 423 consented to the questionnaire, yielding an overall participation rate of 73%. Below are participation rates by state:

Table 1. Participation rate of cross sectional survey among Bhutanese refugees, 2012

State	Randomly Selected	Consented	Participation Rate
AZ	163	97	60%
GA	122	90	74%
NY	151	113	75%
TX	143	123	86%
Total	**579**	**423**	**73%**

Principal reasons for non-participation were relocation (85, (14%)) and refusal (39, (7%)). Other reasons include no contact information (12, (2%)), not meeting eligibility criteria (10, (2%)).

Characteristics of All Survey Participants

The cross-sectional survey was designed to be representative of the Bhutanese refugees who resettled in the four states where we conducted the study. Of 423 participants, 221 (52%) were men. Most of the participants

were married (301, (72%)), professed the Hindu religion (306, (72%)), and had a regular income (276, (65%)). One hundred and forty eight (35%) of participants did not have any schooling, while 56 (13%) had a primary education, and 163 (38%) had attended secondary schools.

The median age was 34 years (range = 18–83). Median household size (not including participant) was 4 persons (range = 0–13). The median number of children was two, and the median time in the US was 1.8 years (range = 0.2–5).

To assess representativeness of the sample compared to the Bhutanese refugee population in the United States, we compared the age and sex distribution of the 423 refugees in the survey to the 37,221 refugees who have been resettled to the United States.

Population Characteristic		**Population (N=37,221)**	**Sample (N=423)**
Mean age (years)	All	37.4 years	38.3 years
	Men	37.4 years	37.7 years
	Women	37.4 years	38.8 years
Median age (years)	All	32.6 years	34.0 years
	Men	32.5 years	33.0 years
	Women	32.8 years	35.0 years
Proportion (%)	Men	49.4%	50.6%
	Women	47.8%	52.2%

Perceived Social Support

The overall sample mean for perceived social support was 34.3 (range = 10.0–48.0). Women reported slightly higher perceived social support than men (mean = 35.0 vs. 33.6) and the difference was statistically significant (p=0.01).

Drug and Alcohol Use

Illicit drug use was reported by six (1%) of the participants. Current alcohol consumption was reported by 48 (11%) (20% men vs. 3% women), although 42 (93%) drinkers reported drinking occasionally.

Mental Health and Family History

Fifteen (4%) participants reported ever been diagnosed with a mental health condition. Of those who had been diagnosed, four (27%) were diagnosed with depression and seven (47%) with anxiety, and nine (60%) had been given medication for the condition. Fifty-three (13%) participants had family members diagnosed with a mental health condition.

Symptoms of Mental Health Conditions

Seventy-nine (19%) participants had symptoms suggestive of anxiety (15% men vs. 23% women); 82 (21%) had depressive symptoms (16% men vs. 26% women); 69 (17%) had psychological distress symptoms (13% men vs. 23% women). The difference between genders was significant for all three constructs, with women consistently having higher prevalence of symptoms of the three self-reported conditions. The overall prevalence of PTSD

symptoms was 5% (n=19), and women had a higher prevalence of PTSD symptoms than men (3% vs. 6%), although there was no statistical difference between men and women.

Trauma Events

One hundred and fifty three (36%) respondents had experienced four to seven traumatic events, and 145 (34%) had experienced eight or more events. Most frequently experienced trauma events included lack of nationality or citizenship (91%), having to flee suddenly (54%), lack of adequate food, water, or clothing (51%) and lack of safety (50%). Significant differences existed between men and women for having experienced physical violence by government authorities (16% men vs. 2% women), torture (13% men vs. 3% women), police corruption (18% men vs. 5% women), and lack of freedom of movement (61% men vs. 41% women).

Interpersonal Needs Questionnaire (INQ)

The mean scores for burdensomeness and thwarted belongingness were 1.8 (range = 1.0–5.4) and 2.5 (range = 1.0–5.8), respectively. There was no statistically significant difference for the mean scores of both constructs between men and women.

Post migration difficulties

The most common post migration difficulties reported as “Quite a bit” or “Extremely” were language barriers (260, (62%)), lack of choice over future (195, (46%)), and worries about family back at home (163, (39%)). Three (0.7%) of the participants reported a crime committed against them or their family.

Experiences with suicide

Twenty-two (5%) participants reported having a suicide in the family, and 83 (20%) knew a neighbor or a friend who committed suicide. When asked what they would do if they were seriously thinking about committing suicide, the most frequent response was to talk to a friend or a relative (26%). This was followed by seeing a doctor (21%), and seeing a mental health professional (16%). Nine (2%) said they would use a crisis hotline to seek help in this situation.

Coping mechanisms

We asked the participants to identify the coping mechanism that they most likely used when faced with a stressful situation in the past. Most answered, “tried to solve the problem” (252, (60%)) and “thought what needed to be done” (218, 52%). Other common responses included “formed a plan of action in your mind” (182, 43%) and “went to a friend to help you feel better” (139, 33%).

Factors Associated with Suicidal Ideation

Thirteen survey participants (3%) reported that they had ever thought seriously about committing suicide in their lifetime. Of these, nine had thought about it in the past 12 months, three had ever made a plan, and one had ever made an attempt.

When comparing individuals who reported ever having had suicidal ideation, with those who did not report ever having suicidal ideation, we identified the following risk factors for suicidal ideation:

- Not being a provider of the family (i.e. a person whose expected role is to be financially responsible for the family, regardless of current employment status): A provider is defined as someone on whom others depend for support of their living expenses, regardless of employment status. Compared to those who reported to be providers of their family, those who were not providers had six times higher odds of reporting ever having suicidal ideation in the past.

- Low perceived social support: For each increased point of the social support scale (meaning perceiving more social support), the odds for suicidal ideation decreased by 14%

- Symptoms of Depression, Anxiety and PTSD: Participants categorized as having symptoms of anxiety, depression, or distress were 38 times, 11 times, and 15 times more likely to report suicidal ideation than those who did not exhibit these symptoms, respectively. Participants who were categorized as having symptoms of PTSD had seven times higher odds of reporting suicidal ideation.

- Traumatic events experienced: Participants who experienced having their house or shelter burnt down had four times higher odds of having suicidal ideation. There were no significant differences in the number of events experienced between those who expressed suicidal ideation and those who did not.

- High perceived burdensomeness and thwarted belongingness were significantly associated with reported suicidal ideation. For every point increase on the scale, the odds of reporting past suicidal ideation increased by almost three times for perceived burdensomeness and two times for thwarted belongingness.

- Post migration difficulties: Family conflict and inability to find work were the main post migration difficulties significantly associated with suicidal ideation. Significant association was found in three main types of post migration difficulty: 1) poor access to services (counseling services and government help); 2) unemployment (unable to find work and lack of choice over the future); and 3) family conflict (increased family conflict and lack of community structure to resolve family conflict).

- Coping Mechanisms: Respondents who said they wished that people would leave them alone, who thought what needed to be done to solve a problem, and who talked to community leaders and/or elders regarding the problem had a higher odd of reporting suicidal ideation compared to those who did not report using these as coping mechanisms.

D. Study Limitations

Our investigation was subject to a number of limitations. First, suicide and mental health are inherently difficult to research because they are sensitive and stigmatized topics in the Bhutanese community. Therefore suicide attempts and reported mental health conditions are likely under-reported. Also, because we employed members of the community to serve as interviewers, interviewer bias may have been a factor. We tried to minimize this by ensuring that interviewers did not interview participants they knew personally, and also by providing standard trainings to all interviewers including sections on bias. The study collected information about suicidal ideation and risk factors at one time point; therefore, we cannot draw conclusion about which risk

factor preceded or followed suicidal ideation. Although we used standard tools to collect information on mental health conditions, and although some of these have been used in other studies involving Bhutanese populations, these have not been formally validated in the Bhutanese population. Furthermore, because no structured clinical interviews were performed, the extent to which self-reported symptoms of PTSD, depression, and anxiety would match clinical diagnosis is unclear.

The psychological autopsies collected information on the suicide from a close contact of the deceased, and were thus secondary data, which is not as reliable as first-hand information. Lastly, the results of this investigation are not generalizable to other Bhutanese populations outside of the survey area or to other refugee populations, but should be considered a description of factors that contributed to a specific cluster of suicides at a particular point in time.

E. Conclusions

The World Health Organization estimates that annually one million people die from suicide, and the global mortality rate is about 16 per 100,000 population per year. The rate of suicides among US-resettled Bhutanese refugees from our study was 20.3 per 100,000, higher than both the global rate and the US rate of 12.4 per 100,000[10]. This was consistent with the rate of suicide in Bhutanese refugee camps in Nepal of 20.7 per 100,000, as determined in the IOM assessment.

Since the conclusion of our investigation, three additional suicides have been reported to ORR. These cases were not included in the analysis but highlight the urgency of the continuing problem in this community.

Most suicide decedents were generally unemployed men who were not providers of their family; the most common post-migration difficulties faced by the victims were language barriers, worries about family back home, and difficulty maintaining cultural and religious traditions. Thirteen (93%) suicides occurred by hanging, and most committed suicide within one year of arrival. Three (21%) had previously attempted suicide, and only one person who committed suicide was reported to have sought professional help. This highlights a gap between the need for mental health services and their use, as well as the question of the availability and access to such services.

Our investigation was not designed to look at the reason why suicides have been occurring in the Bhutanese refugee community versus other refugee communities that face similar challenges. But Bhutanese refugees are one of the newest populations resettling in the US, arriving here only after 2007, and do not have a long-standing established community here that they can look to for support. Their resettlement to the United States also coincided with the financial downturn and high unemployment rates, which has made finding employment even more challenging. Lastly, cultural perspectives of suicide in the Hindu/Nepali culture may be different from Western ones. Some of these factors may help explain why suicide has affected the Bhutanese refugee population in the United States versus other populations.

From key informant interviews, observation, and anecdotal accounts, social media is commonly used in this community, such as Yahoo list serve, Facebook, and YouTube videos. We learned that the Bhutanese refugee

[10] http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html

community across the US has a Yahoo list serve that has been used in the past to inform and discuss about suicides in various communities. This has a potential to create a contagion effect in the community. However, it can also serve as an opportunity for innovative channels of mental health education and suicide prevention.

Previous research has shown that sensationalizing or glorifying a suicide can lead to a contagion effect, or copycat effect, in which other susceptible individuals feels compelled to commit suicide. The CDC and the National Suicide Prevention Lifeline have developed guidelines for reporting and discussing suicide, using neutral, appropriate terms. These guidelines can be adapted to be linguistically appropriate to minimize the contagion effect.

Suicide contagion is a process whereby knowledge of a suicide influences other people to attempt suicide themselves. Seven of the 14 (50%) suicides had experienced the suicide of a family member or close friend. to the proportion is 25% in the general Bhutanese population in our survey, which indicates that suicide contagion is a serious motivator among victims. In the aftermath of a suicide, family members and close friends should be considered to be at elevated risk for suicide and should be assured access to mental health resources. Community leaders should be encouraged to be alert to any mention of suicide in the community, and to discourage sensationalistic reporting and recounting of the suicide.

In the cross-sectional survey, we observed a low prevalence of reported suicidal ideation (3%). This is lower than expected (about 8% in other populations), and we believe this is an underestimation of reported suicidal ideation in this population. Mental illness carries a strong and persistent stigma in Nepal and in the Bhutanese refugee community, and suicide is equally a stigmatized subject. Therefore, we believe that we were not able to capture the true prevalence of suicidal ideation.

While only 4% of cross-sectional survey respondents stated that they had a previously diagnosed mental health condition, our investigation revealed that the prevalence symptoms of anxiety, depression, and distress in this population was 17%, 21%, and 17%, respectively, with higher rates seen in women. This indicates a potentially significant, yet undiagnosed, burden of mental health conditions in the community that. In comparison, the prevalence of depression among adults in the United States is 6.7%.

Researchers working in the camps in Nepal have suggested that mental distress is often somaticized, and that symptoms of depression and PTSD may present as physical complaints.[11] Therefore it is likely that the poor physical health described herein is in fact a reflection of poor mental health. The use of a mental health screening tool that has been validated for classifying refugees with anxiety, depression, or PTSD and that includes questions on somatic symptoms, like the Refugee Health Screener-15 (RHS-15),[12] would therefore be useful in identifying individuals that present with somatic symptoms.

About one-quarter of respondents said that they would seek help from a friend or relative if considering suicide. Thus community-based approaches – in addition to individual-based services – for suicide prevention can be

---

[11] International Organization for Migration. 2011. Who Am I? Assessment of Psychological Needs and Suicide Risk Factors among Bhutanese Refugees in Nepal and after Third Country Resettlement.

[12] Pathways to Wellness. 2011. Integrating Refugee Health and Well-Being: Creating Pathways for Refugee Survivors to Heal.

useful in this setting. Only 2% of respondents reported they would use a suicide hotline when in crisis. While this may represent a preference, it might also indicate lack of awareness of and access to language-appropriate services. Using the existing national suicide prevention hotline infrastructure and implementing it with community cultural brokers and interpreters will make these services more accessible to the community.

Significant risk factors for suicidal ideation included language barriers, being unable to find work (especially those who consider themselves to be the family provider) and increased family conflict, as well as the coping mechanism of wishing that "people would just leave you alone". These risk factors can be useful indicators for community leaders and service providers to identify potentially at-risk individuals. Addressing these issues will also be important in a comprehensive suicide prevention strategy.

Geographic differences were noted in relationship to community cultural and religious issues. Arizona had the highest rate of reporting "lack of religious community" (26%), followed by NY (22%), TX (17%), and GA (7%). Similarly, more participants in AZ reported difficulty maintaining cultural and religious traditions (29%) compared to New York (23%), Texas (23%), and Georgia (12%). Of note, Georgia had the lowest figures for these post-migration difficulties, and is also the one state of the four in our investigation in which no suicide occurred. Refugees in Georgia may experience fewer community-related challenges compared to refugees in other states, which is possibly a protective factor against suicide.

From observations in the communities, we learned that social media plays an important role in the community, especially communication with geographically separated communities. Social media can be a powerful tool to provide information and education that can positively change stigma about mental health and promote mental health well-being in these communities. Lastly, this investigation is one of the first to examine mental health and suicide in this community systematically. There is a substantial need for more data to monitor and better understand the problem of suicides in this community.

Recommendations

Local Resettlement Networks: Resettlement Agencies, Community/faith-based Organizations, Refugee Health Programs

Immediate actions (within the next three months)

1. The local resettlement network should urgently follow up with recent suicides to connect affected families and communities with wrap-around supportive services. "Wraparound" is an approach used in a variety of contexts to describe strengths-based, client-centered, culturally-appropriate system of support that draws on natural supports for individuals or families in crisis.

2. Local resettlement networks should seek to minimize contagion effect within the families and communities that have experienced a suicide.[13,14] This includes refraining from providing sensational coverage of suicide, refraining from reporting "how-to" descriptions of suicide, or glorifying suicide or persons who commit suicide.

3. Standard reporting of suicides should be implemented *once a suicide or a suicide attempt has been confirmed*. Resettlement agencies and/or community/faith-based organizations should immediately communicate information about the suicide or attempt with the state point of contact, the Refugee Health Coordinator (RHC) (or State Refugee Coordinator (SRC) or other designee if there is no state RHC). This point of contact should in turn communicate this to the state analyst at ORR, who should share with ORR leadership. ORR leadership should also share this information with PRM and CDC. An example of data that should be collected can be found in Appendix A.

4. The local resettlement network should identify and become familiar with local mental health services and suicide prevention resources, and identify mechanisms to have mental health crisis services for Nepali-speaking refugees available. This may be done by identifying trusted members in the community to serve as cultural brokers to serve as a bridge between the refugee and refugee service providers. They should also become familiar with the National Suicide Prevention Lifeline[15] and promote its use, particularly by gatekeepers who need to help a refugee in crisis.

5. The RHC (or SRC/designee) should engage the state public health suicide prevention coordinator to facilitate linkages between resettlement communities/refugee networks and suicide prevention services.

6. Resettlement agencies should consider development of additional programs for newly arrived persons that address post-resettlement isolation, and to try to involve the local community more in these activities. Resettlement agencies should reassess intake procedures and involve the community in the welcoming activities.

[13] MMWR. Suicide Contagion and the Reporting of Suicide: Recommendations from a National Workshop. April 22, 1994 / 43(RR-6);9-18 (http://www.cdc.gov/mmwr/preview/mmwrhtml/00031539.htm)
[14] http://reportingonsuicide.org/
[15] http://www.suicidepreventionlifeline.org/

7. For communities that experience a cluster of suicides, i.e. when suicides or suicide attempts occur closer in time and space than would be normally expected, the local resettlement network should develop and implement a community plan. The CDC Recommendations for a Community Plan for the Prevention and Containment of Suicide Clusters[16] and Recommendations for Reporting on Suicide[17] should be followed in this process. Briefly, key elements of this plan include the following:
   a. Convening a Coordinating Committee that manages the day-to-day response to the crisis and involves all concerned sectors of the community
   b. The response plan should be implemented under either of the following two conditions:
      1. When a suicide cluster occurs in the community, or
      2. When one or more deaths from trauma occur in the community, especially among adolescents or young adults, which may potentially influence others to attempt or complete suicide.
   c. The relevant community resources should be identified
   d. Persons who may be at high risk of suicide should be identified and have at least one screening interview with a trained counselor; these persons should be referred for further counseling or other services as needed.

Community Mental Health Providers

Immediate/Intermediate (within the next three to six months)

1. Support mental health services for recently arrived refugees to address anxiety, depression, distress and PTSD, which are well-established risk factors for suicide. Community mental health providers in resettlement communities should consider integrating cultural brokers into existing clinical settings to help make existing services more linguistically and culturally appropriate and available to refugee groups.

ORR

Immediate actions (within the next three months)

1. Coordinate the collection psychological autopsy information about recent suicides through the RHC or SRC to add to the psychological autopsy database. CDC will provide the interview guide. ORR should provide regular reports (aggregate data) on refugee suicides to PRM and CDC.

2. ORR should identify resources to strengthen community structures and implement community-based suicide prevention intervention activities. These may include the following:

   a. Promote suicide prevention training for the resettlement network and explore suicide prevention training opportunities with partners, such as SAMHSA and RHTAC. RHTAC has developed the Refugee Suicide Prevention Training Tool Kit[18], which is based on the effective suicide prevention intervention known as QPR, or Question, Persuade, and Refer. The adapted QPR materials are

[16] MMWR. 1988. CDC Recommendations for a community plan for the prevention and containment of suicide cluster. 37(S-6); 1-12.
[17] http://reportingonsuicide.org/Recommendations2012.pdf. Accessed 14 July 2012.
[18] http://www.refugeehealthta.org/physical-mental-health/mental-health/suicide/suicide-prevention-toolkit/

appropriate in the refugee context and are available on the RHTAC website, together with a webinar orientation for QPR trainers. We recommend that those in close contact with refugee community members organize and participate in QPR training and consider becoming certified trainers to further extend the reach of trainings.

b. ORR should consider incorporating suicide prevention in its various grants programs. Examples of objectives and activities that can promote suicide prevention include:

    a. Support non-clinical interventions to address the suicide risk factor of low perceived social support. In the context of the Bhutanese culture, group-based intervention should be considered, such as community bhajans (religious singing), or sports teams. Pathways to Wellness has also developed a curriculum for Community Adjustment Support Groups, which is designed for resettlement and community-based organizations that are interested in hosting community-based support groups for refugees around emotional wellness and successful integration into their community. The curriculum will be available December 2012[19]. Interventions with opportunity for separation by gender to address issues specific to men and women respectively, e.g., through a women's sewing group, should also be considered.
    b. Continue to support vocational training, not only for those newly arrived persons but also resettled persons who are struggling with finding employment. This is especially critical for those who consider themselves to be the provider of the family.
    c. Support the development of social media tools to promote suicide prevention messages in the community. Community leaders and resettlement agencies can collaborate to explore best method to deliver these messages in addition to the in-person services they are currently providing. Social media such as Yahoo Groups and Facebook are popular in this community, and can be effective tools to deliver prevention methods as well as to minimize the contagion effect in case a suicide does happen in the community.
    d. Enhance the community's psychosocial supports through outreach, education and mentoring to remove stigmas associated with mental health conditions. Introduce different tiers of prevention and intervention strategies for those at imminent risk and targeted social groups (e.g. women) to promote leadership and networking. We recommend engaging the community in all of these recommendations so that the considerable strengths and cultural knowledge of refugee community members are brought to bear on the issues and refugees themselves are active change agents in this process.

<u>Long-term actions (within the next six to twelve months)</u>

1. Additional data are needed to further understand the problems of mental health and suicides in this community. For example, risk factors for suicide among refugee adolescents were not included in this investigation. ORR should consider encouraging responsible agencies to support research to better understand this topic.

2. ORR should engage leadership from the Substance Abuse and Mental Health Service Administration (SAMHSA) to discuss exploring whether refugee groups should be included into the SAMHSA list of high

[19] http://www.lcsnw.org/pathways/index.html

priority groups for suicide prevention activities. Currently, SAMHSA articulates priority groups to focus on for suicide reduction: military families, LGBTQ youth, and American Indians and Alaska Natives.[20]

3. ORR should explore partnerships with NGOs serving refugees to leverage resources, and educate them about refugee suicide risk and the need for strengthened community structures, which in turn will contribute to the implementation of the above recommendations.

4. ORR should consider supporting Pathways to Wellness to add additional languages to the Refugee Health Screener-15 (RHS-15). Pathways to Wellness has developed and validated the RHS-15 as a culturally-responsive refugee-centered screening instrument that demonstrates high sensitivity and specificity for classifying refugees with anxiety, depression, or PTSD. The RHS-15 is designed to be administered with general health screening in the public health setting, and packaged with referral, outreach, and training components to enhance acceptance, decrease stigma, and improve access to community services.

Other Federal Partners

Intermediate actions

1. With large-scale refugee processing and movements, some degree of family separation is unavoidable. We recommend UNHCR communicate the reasons for separation and the likelihood of reunification to the resettling refugees to minimize anxiety and misunderstanding, and to enhance management of expectations and communication of reasons for family separation during the entire resettlement process.

2. PRM to provide an update to US refugee stakeholders on activities implemented to mitigate the suicides in the camps in Nepal since the IOM assessment in 2010.

3. CDC to update the domestic refugee screening guidelines on mental health based on more recent, updated data, and to consider including the RHS-15 as one of the screening tools.

[20] http://store.samhsa.gov/shin/content/SMA11-4629/03-Prevention.pdf

F. Acknowledgements

We gratefully acknowledge the following individuals and organizations for their invaluable contribution to this investigation:

Study participants

Office for Refugee Resettlement
- Eskinder Negash
- Marta Brenden
- Makda Belay
- Essey Workie

Arizona Department of Health Services
- Ken Komatsu
- Carrie Senseman
- Markay Adams

Texas Department of State Health Services
- Jessica Montour

Georgia Department of Public Health
- Monica Vargas

New York State Department of Health
- Eric Cleghorn
- Cheryl Brown
- Stephanie Anderton

Resettlement agencies and Bhutanese Community Leaders of:
- Atlanta, Georgia
- Buffalo and Syracuse, New York
- Dallas/Fort Worth and Houston, Texas
- Phoenix and Tucson, Arizona

Students and Fellows
- Cathy Baroang
- Jaya Kannan
- Karren Lamay
- Sonia Hegde
- Collin Basler
- Navit Robkin
- Ashley Hagaman
- Ugonna Ijeoma

Psychological Autopsy Interviewers
- Markay Adams
- Mike Gronostaj
- Jeff McCollum
- Dulce Morales
- Amy Peterson
- Loren Rodgers
- Gigi Rose
- Maria Said
- Laura Vonnahme

CDC Collaborators
- DGMQ/IRHMB
- DGDDER/IERHB
- Division of Injury Prevention – Alex Crosby, M.D.
- Pathways to Wellness – Michael Hollifield, M.D.
- Boston Children's Hospital – Alisa Miller, Ph.D.

Georgia Interviewers
- Anna Spainhour
- Benu Dhakal
- Bikash Chhetri
- Damber Timsina
- Dora Dhakal
- Khagar Basnet

New York Interviewers
- Damanta Adhikari
- Indra Ghimire
- Purushottam Ghimire
- Sabina Gurung
- Uma Khadka
- Om Mishra
- Govinda Subedi
- Tara Tiwari
- Gopal Baskota
- Jai Subedi
- Manuka Basnet
- Munu Shrestha
- Pooja Shiwakoti
- Raj Shrestha

Texas Interviewers

- Dil Dhungyel
- Damodari Kafley
- Laya Odari
- Puna Pokhrel
- Kamal Subedi
- Kul Adhikari
- Krishna Dhakal
- Ganga Khanal
- Khem Koirala
- Bala Ram Subedi
- Reeku Barailey
- Rudra Basent
- Ganga Chamlagai
- Mahesh Neopaney
- Meg Neopaney
- Dil Bahadur Rimal
- Muna Tamang

Arizona Interviewers

- Tek Chhetri
- Safala Chhetri
- Kamana Khadaka
- Manorath Khanal
- Dilip Mishra
- Dipika Pouydel
- Mousami Adhikari
- Damanti Kathet
- Damodar Khatiwada
- Indira Phuyal
- Uttam Rizal
- Devi Sharma
- Nara Subedi
- Om Subedi
- Bishnu Tiwari
- Ram Upreti
- Laxmi Upreti

Appendix A: Example of Case Report Form

Resettlement Agency, City	WRAPS Case Number	Country of Origin	Refugee Name	Gender	DOB	Residence (City, State)	Date of Arrival	Suicide Date	Method of Injury	Place of occurrence	Known mental health concerns	Next of kin	Reported by (Name and relationship to deceased)