STAFF WELL-BEING SURVEY DATA REPORT

United Nations

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Acknowledgements

The present report could not have been accomplished without the support and cooperation of many academic partners and United Nations staff. The United Nations staff well-being survey is the outcome of collaborations among the Medical Services Division, the United Nations Secretariat, more than a dozen United Nations entities around the globe, the New York University School of Medicine, Webster University, Geneva Campus, and Sarah Lawrence College.

The authors wish to acknowledge the invaluable work of Dr. Francis Mas who, after three decades in service to the mental health of United Nations staff, initiated the discussions between the United Nations and New York University, ultimately leading to the present partnership project.

Finally, our deepest and sincerest thanks go to the United Nations staff for their support of and participation in this project.

EXECUTIVE SUMMARY

In 2015, the Medical Services Division of the United Nations Secretariat conducted a cross-sectional survey to attempt to quantify the burden of mental health symptoms in United Nations personnel. Digital links to the staff well-being survey were emailed to staff of 13 United Nations entities around the world by each representative Staff Well-being Unit, in collaboration with the Medical Services Division. The survey was partially or fully completed by 17,363 United Nations staff.

The aim of the survey was to collect a variety of sociodemographic, behavioural and mental health information in order to identify those factors most strongly associated with reduced well-being and psychological problems in United Nations staff. In addition, the survey attempted to identify links between well-being and occupational factors such as duty station type, exposure to potentially traumatic events, incivility and occupational conflict and the utilization of mental health-care services. The findings are being used to guide a comprehensive mental health strategy aimed at improving the psychosocial well-being of the global workforce.

Survey results show that United Nations staff members endorsed symptoms consistent with mental health diagnoses beyond what would be expected in the general population. In addition, the prevalence of mental health issues in United Nations staff who responded to the survey was similar or higher to the nearest available comparison data, namely, in human rights advocates and humanitarian relief workers (see table 1.; cf. Connorton et al., 2011; Dubravka et al., 2016; Eaton et al., 2008; Joscelyne et al., 2015; Kessler et al., 2009; Kessler et al., 2013; McLaughlin et al., 2015; Sommers et al., 2006). In particular, findings suggest a high prevalence of generalized anxiety disorder (GAD), major depressive disorder (MDD) and post-traumatic stress disorder (PTSD) in the United Nations workforce.

Table 1

PREVALENCE OF MENTAL HEALTH ISSUES

Table 1 depicts the point prevalence of General Anxiety Disorder (GAD), Post-Traumatic Stress Disorder (PTSD), Major Depressive Disorder (MDD) and hazardous drinking of our cohort compared with the 12-month prevalence in the general population and the point prevalence in human rights advocates and humanitarian relief workers.

	POINT PREVALENCE IN THE UNITED NATIONS SAMPLE	POINT PREVALENCE IN THE GENERAL POPULATION	12-MONTH PREVALENCE IN THE GENERAL POPULATION	POINT PREVALENCE IN HUMAN RIGHTS ADVOCATES[1]	POINT PREVALENCE IN HUMANITARIAN RELIEF WORKERS[2]
	(PERCENTAGE)				
GAD	17.90	7.3[3] (global current prevalence (i.e. point/ past month) for anxiety disorders, not only GAD)	2.6[4] 3.6 (anxiety disorders, not only GAD)[5]	N/A	8–29 (anxiety disorders, not only GAD)
PTSD	19.89	0.28[6]	1.2[7]	19.4	1–43
MDD	22.78	4.7[8]	4.4[9]	14.7	8–20
Hazardous drinking	23.15	N/A	1.8[10] (harmful use)	N/A	N/A

1 Joscelyne et al. (2015).
2 Connorton et al. (2011).
3 Baxter et al. (2013).
4 Sommers et al. (2006).
5 World Health Organization (2017).
6 Murray et al. (1996).
7 Sommers et al. (2006).
8 Ferrari et al. (2013).
9 World Health Organization (2017).
10 World Health Organization (2014).

Statistical analyses identified significant associations between each mental health outcome studied and a variety of sociodemographic and occupational variables (NB: None of the analyses herein reveal information about causality or direction of causality):

Job satisfaction (low), duration of employment in the United Nations system (greater number of years) and reported exposure to trauma in the previous 12 months were overall the best predictors of a positive screening for GAD, PTSD or MDD.

In contrast, the most predictive factors for hazardous drinking were relationship status (not in a relationship or in a relationship not recognized by the United Nations), parenthood status (no dependent children) and reported exposure to trauma while at work (but not off-duty).

Statistically significant associations were also found between perceived incivility/conflict at work and mental health issues. Levels of perceived incivility/conflict at work were higher among those screening positive for GAD, MDD, PTSD or hazardous drinking.

Despite the presence of elevated levels of mental health concerns, the vast majority of the United Nations staff responding to the survey (94%) had not received mental health support in the past year. In addition, 25 per cent of staff participating in the survey responded that they were not seeking the support of a mental health professional either because of discomfort about the idea (15 per cent) or owing to (a possibly incorrect) belief that such services were unavailable (10 per cent).

Taken together, these data indicate the high prevalence of mental health symptoms in United Nations staff compared with the general population; point to the occupational environment of the global system as a potential contributing factor; suggest that some staff, demographically, are more at risk than others; and reveal the insufficient reach and less-than-adequate effectiveness of current psychosocial support programmes.

Accordingly, the present study points to a number of measures which, if implemented, could profoundly affect the health of the United Nations workforce and, by extension, the effectiveness of that workforce in meeting the needs of beneficiary populations. Those measures are:

1. Develop a targeted strategic action plan for the mental health of the United Nations workforce
2. Prevention must be a cornerstone of any future strategy
3. The United Nations must make access to high-quality psychosocial care universal for its staff
4. Stigma reduction will be an important pillar of reform, to enable help-seeking and return to work
5. Prioritize interventions based on the survey data
6. Carry out future studies to track progress

INTRODUCTION

The United Nations has long recognized and worked on policies and initiatives to reduce mental health issues and improve psychological well-being globally. It has recognized that mental health is a human right that falls under one's right to health (Human Rights Council, 2017). In addition, the Universal Declaration of Human Rights includes the right to work, underscoring the importance of addressing the unmet needs of the United Nations workforce (Lauterpacht, 1948). The psychological health of a workforce is of particular occupational health interest because it may impact the ability to sustainably carry out the complex work of the United Nations and because stigmatizing attitudes to psychiatric illness can be a major barrier to diagnosis, treatment and recovery.

It has previously been established that a significant minority of individuals working in fields where exposure to potentially traumatic or highly stressful events is common will exhibit mental health issues, including depression, anxiety, post-traumatic stress disorder (PTSD) and substance abuse (Berger et al., 2012; Keane and Wolfe, 1990; Marmar et al., 2006; Simons et al., 2005). Although most research in this area has dealt with the military, the police, firefighters and emergency service organizations, some studies are showing that diverse staff and associates of humanitarian and human rights organizations may also exhibit elevated prevalence of mental health issues (Connorton et al., 2012; Dubravka et al., 2016; Joscelyne et al., 2015; Welfare Office of the Office for the Coordination of Humanitarian Affairs of the Secretariat, 2015; Rodin et al., In Press; Shigemura et al., 2016; Strohmeier and Scholte, 2015; Tol et al., 2011). This includes studies conducted by the Office of the United Nations High Commissioner for Refugees (UNHCR) and the Office for the Coordination of Humanitarian Affairs of the Secretariat. Despite such problems, it is important to add that a significant portion of workers in these types of settings appear to be resilient; in other words, even under adverse conditions, most people report relatively low levels of mental health issues, and there is evidence suggesting that resilience is a trait that can be learned (Agabi and Wilson, 2012; Bonanno, 2004; Bonanno et al., 2011; Joscelyne et al., 2015).

United Nations staff members are presented with unique challenges. The task of the complex, global system of the United Nations workforce is focused on improving peace and security, human rights and difficult economic and social conditions. As a result, the work of the United Nations is extremely diverse in terms of its occupational demands and its environmental and geographic contexts. Despite such occupational diversity, staff members employed at United Nations entities around the world may be viewed as a singular group who share a common organizational culture, one that they normally adapt to and internalize over time. Surveying and improving the health and well-being of these staff members in this context is not only a fundamental responsibility of duty of care, but could help to promote a more sustainable workplace culture throughout the Organization.

OBJECTIVES

The aim of the survey was to assess the burden of mental health issues and evaluate the utilization of mental health-care services as well as to identify predictors of elevated risk for such issues in United Nations staff. Findings from the survey are being used to guide and develop strategies for promoting well-being across the United Nations system.

The specific objectives of the United Nations staff well-being survey were as follows:

- Determining the percentage of United Nations staff screening positive for mental health issues, including GAD, MDD, PTSD and hazardous drinking
- Examining how sociodemographic and occupational variables, such as gender, age, job satisfaction and others influence the mental health outcomes
- Identifying which sociodemographic and occupational variables most strongly predict mental health issues in order to optimize United Nations psychosocial support structures, with particular emphasis on timely and targeted support for high-risk situations or cohorts
- Evaluating the subjective needs, perceptions and utilization rates of mental health-care services in United Nations staff.

METHODOLOGY

To examine the prevalence of mental health issues, a staff well-being survey was conducted online using Survey Monkey. All employees in each participating entity received an email link to the questionnaire. The email provided information on the purpose of the survey, confidentiality clauses and the approximate time needed for completion. Participants could (or could not)

skip questions or sections of the survey (incomplete surveys were included in analyses when statistically appropriate). No personally identifiable information was collected. After survey data were collected, the de-identified results were analysed with the support of researchers from the New York University School of Medicine. The analysis of these data by New York University was approved by both the New York University School of Medicine institutional review boards and the United Nations Medical Director.

Data collection took place over a period of eight months between 2015 and 2016. In total, 17,363 staff members from 13 United Nations entities completed the survey fully or partially. The participating entities were:

(a) United Nations Secretariat, including:

- United Nations Headquarters (New York)
- Economic Commission for Africa
- Economic Commission for Latin America and the Caribbean
- Economic and Social Commission for Asia and the Pacific
- Economic and Social Commission for Western Asia
- United Nations Office at Geneva
- United Nations Office at Nairobi
- United Nations Office at Vienna
- United Nations peacekeeping and political affairs missions and other field locations

(b) United Nations Development Programme

(c) United Nations Children's Fund

(d) United Nations Population Fund

STAFF WELL-BEING SURVEY

The staff well-being survey is an online questionnaire that was developed collaboratively by United Nations organizations, in consultation with academic partners from New York University and Sarah Lawrence College. A similar survey was completed in UNHCR and Webster University, Geneva, at the same time, but was analysed and published separately from the present global dataset.

The survey used standardized and validated self-report measures to estimate the risk and rates of mental health issues (see appendix A for detailed descriptions), including:

- GAD using GAD-7
- PTSD using PCL-6
- MDD using PHQ-9
- Hazardous drinking using AUDIT-C
- Workplace incivility and occupational conflicts using the Workplace Incivility Scale

In addition, the survey assessed mental health care utilization by asking about the perceptions, need and utilization of mental health-care services within or outside the United Nations.

Survey participants were also asked to respond to a variety of sociodemographic questions with regard to:

- Gender, age, relationship status and parenthood of dependent children

Occupational variables were collected on:

- Duration of employment at the United Nations
- Type of appointment (permanent versus fixed-term versus temporary versus consultancy)
- Recruitment type (local versus international)
- Duty station type (family versus non-family)
- Job satisfaction
- Exposure to a potentially traumatic event in the previous 12 months, either during work or off-duty, namely, an event of actual or threatened death or serious injury.

Most survey respondents completed the survey in English. Spanish and French translations of the survey were also available, the accuracy of which was validated through triangulating translations.

STATISTICAL ANALYSES

For quantifying the prevalence of mental health issues, comorbidities and mental health care utilization, percentages were calculated by dividing the number of positive responses

to the respective mental health question of the survey (for example, GAD, PTSD, MDD, hazardous drinking, mental health care utilization or occupational conflict) by the total number of survey responders. All participants who fully completed the respective screening instrument for GAD (n = 15,417), PTSD (n = 14,191), MDD (n = 15,000) or hazardous drinking (n = 14,557) were included in the analyses.

Chi-square test of independence

To evaluate how well the sample of the survey represented the global population of United Nations staff, sociodemographic and occupational variables were compared using chi-square tests to examine the significant difference between the United Nations staff in the sample and the global United Nations staff population (see appendix B).

Chi-square tests were also used to determine whether particular sociodemographic or occupational variables (for example, gender, age or job satisfaction) were significantly associated with the survey outcomes (for example, GAD, hazardous drinking; see table 9, appendix E). These tests do not analyse any potential causal relationships nor do they control for the influence of other sociodemographic variables.

Multivariable logistic regression analysis

Given that under realistic circumstances, sociodemographic and occupational variables (covariates) do not exist in isolation, multivariable logistic regression analyses (see appendix D) were used to determine how the sociodemographic and occupational variables contributed to a certain mental health outcome (for example, MDD or PTSD) when taken together.

These tests do not analyse any potential causal relationships. In contrast to the associations found when using chi-square tests, results using the multivariable logistic regression analyses indicate those variables that remained significant when controlling for the influence of other sociodemographic variables.

Odds ratio

The results of the multivariable logistic regression analyses are reported as odds ratios. An odds ratio greater than 1 indicates that as the value of the predictor variable increases, the odds of the outcome increase. For example, if a given predictor variable increases the odds of a certain outcome by a factor of 2, then United Nations staff for whom the predictor variable applies have a twofold higher risk for the outcome in question.

Levels of significance

The term "significance" means that the respective association or difference is unlikely to result merely from chance. To distinguish between significant and nonsignificant associations or differences, a cut-off criterion is established. The usual conventions are followed herein, with a probability value of 95 per cent ($p < .05$) indicating significance. The highest degree of significance distinguished is $p < .0001$.

RESULTS

Sample characteristics

A total of 17,363 United Nations employees completed the survey fully or partially. Analyses found that this sample adequately represented the global population of United Nations staff. No significant differences were found between the survey sample and the global staff population with regard to sociodemographic and occupational variables such as age, gender or type of appointment, with the exception of one variable. The only significant difference found between the sample and the global United Nations population was that members of our sample were more frequently parents of a dependent child or children (see table 2, appendix B, for a detailed comparison of sociodemographic and occupational variables).

Point prevalence of mental health issues

Between 18 per cent and 23 per cent of United Nations staff screened positive for GAD, PTSD, MDD and hazardous drinking. Figure 1 shows the exact percentage of staff reporting symptoms consistent with each of the mental health issues. Details of the prevalence for each participating United Nations organization (de-identified) can be found in table 3, appendix C.

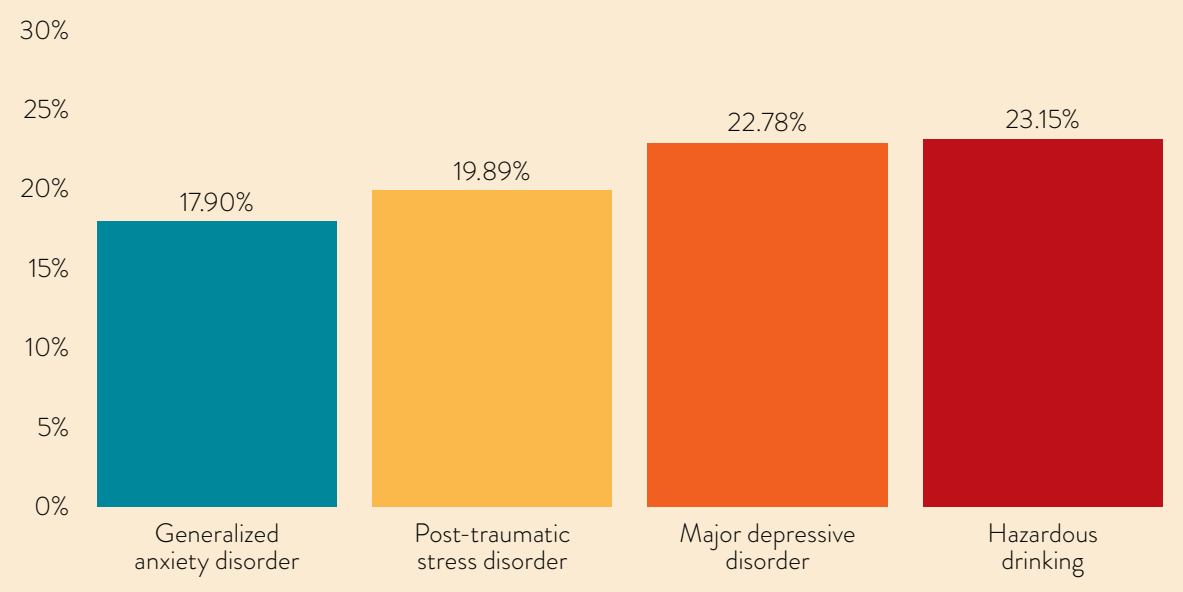
In total, 13,731 respondents of the United Nations staff well-being survey fully completed the screening measures for all four mental health issues. Over half of United Nations employees did not screen positive for a mental health issue, as seen in figure 2. However, 49 per cent of employees did screen positive for at least one mental health issue and about 22 per cent screened positive for two or more (figure 2).

GENERALIZED ANXIETY DISORDER

Anxiety can often be a useful warning sign about dangers and threats that require precaution. In contrast, excessive worries about the future and uncertain events, inadequately high anxious arousal

Figure 1

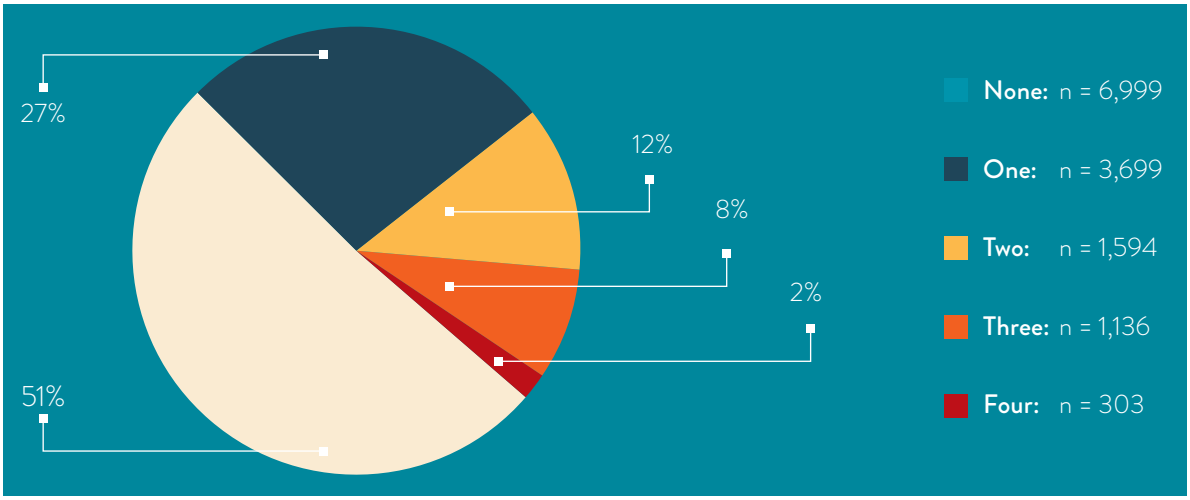
PERCENTAGES OF UNITED NATIONS STAFF SCREENING POSITIVE FOR A MENTAL HEALTH ISSUE



Note: The percentages refer to the proportion of respondents who reported symptoms consistent with a mental health issue in proportion to the number of respondents who fully completed the respective screening instruments for GAD (n = 15,417), PTSD (n = 14,191), MDD (n`=`15,000) or hazardous drinking (n = 14,557).

Figure 2

PERCENTAGES OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MULTIPLE MENTAL HEALTH ISSUES



Note: The percentages refer to the number of respondents who reported symptoms consistent with zero, one, two, three or four mental health issues (GAD, MDD, PTSD, hazardous drinking) in proportion to the number of United Nations staff who fully completed the screening measures (n = 13,731).

or always expecting the worst may lead to debilitating distress, restlessness or irritability. Such worries may cause significant impairment in social or occupational areas of functioning (Fricchione, 2004).

Based on these survey data, 18 per cent of United Nations personnel (n = 2,759) reported symptoms consistent with GAD (figure 1). GAD was significantly more frequent in women than in men (figure 3). Staff in a marriage or registered life-partnership recognized as a relationship by the organization reported GAD significantly less frequently (figure 4). There were no significant differences for age or parenthood. Survey respondents on temporary or consultancy contracts were less likely to meet criteria for GAD compared with those on permanent or fixed-term contracts (figure 5). Regarding occupational factors, job satisfaction (figure 6) and duration of employment in the United Nations system (figure 7) were significantly associated with GAD, and individuals who screened positive for GAD reported significantly higher levels of workplace incivility (figure 8). Staff who had experienced a potentially traumatic event during the previous 12 months were significantly more likely to screen positive for GAD (figure 9).

There were no significant differences in the likelihood of screening positive for GAD with regard to type of duty station (family versus non-family) or recruitment type (local versus international).

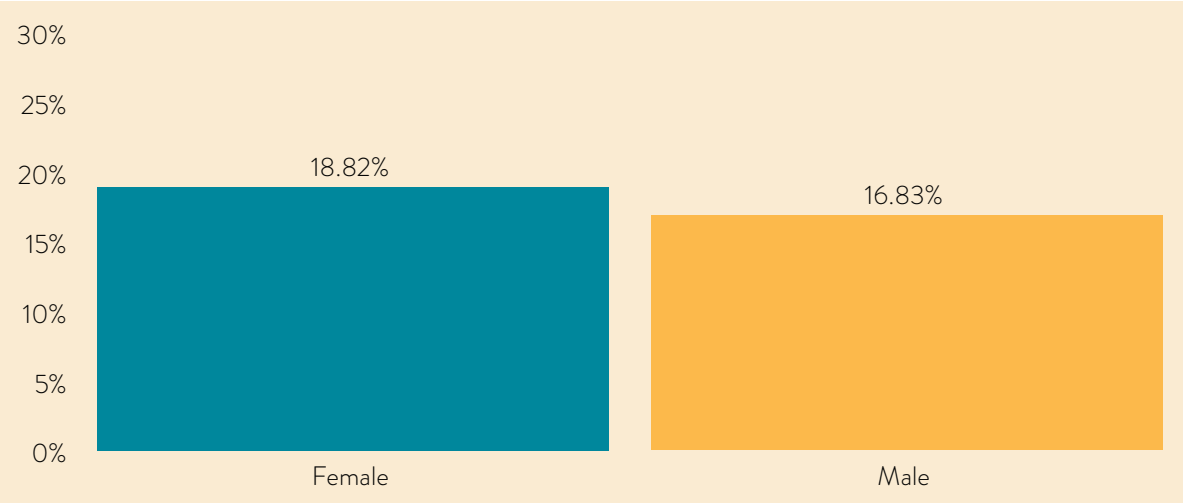
Predictors for the risk of GAD

To identify which of the sociodemographic and occupational variables of United Nations personnel were the strongest predictors of screening positive for GAD, a multivariable logistic regression analysis was calculated (see table 4, appendix D, for exact parameter estimates). When statistically controlling for the influence of all sociodemographic and occupational variables together, the risk of GAD was predicted as follows:

- Staff of 50 to 54 years of age had a 1.79 times lower risk compared with staff younger than 35
- Staff with 5 to 10 years of work experience in the United Nations system had a 2.7 times higher risk and those with more than 10 years of experience had a 3.2 times higher risk compared with the newest recruits
- Staff who were the most satisfied with their job had about a 10 times lower risk of screening positive for GAD, and those who were slightly satisfied had a 2 times lower risk, compared with those who were not at all satisfied with their job
- Trauma exposure increased the risk of screening positive for GAD. Staff who did not report experience of a trauma during the previous 12 months had a 1.6 times lower risk of screening positive for GAD.

Figure 3

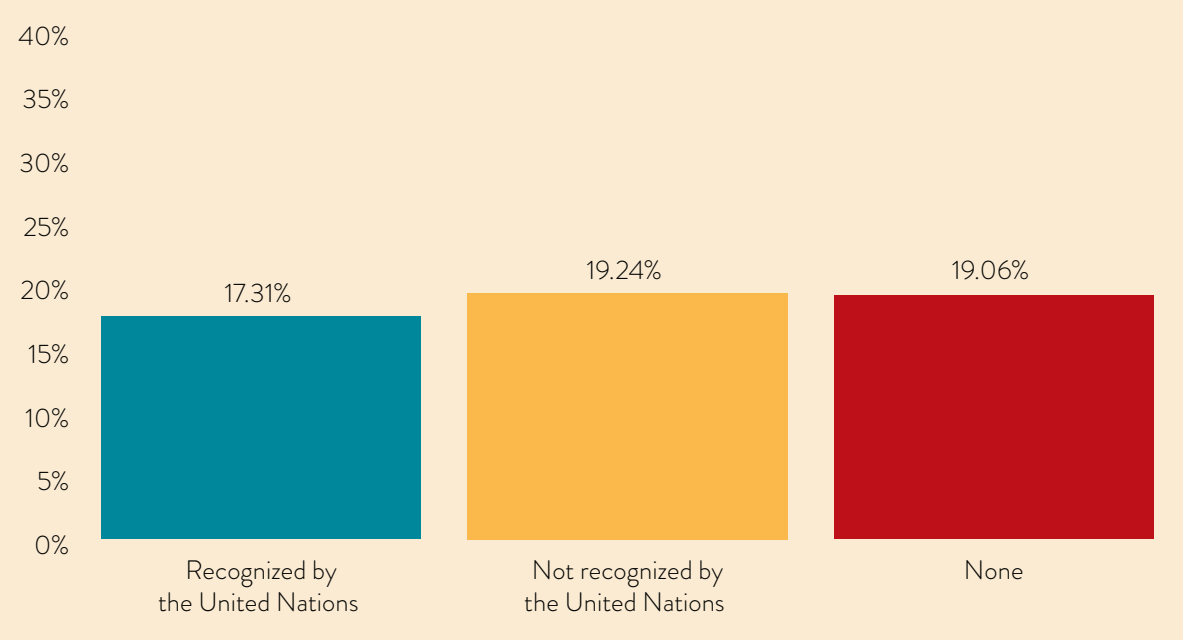
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR GAD, BY GENDER



Note: Female and male United Nations staff who screened positive for GAD in proportion to the respective number of all female or male respondents completing the survey.

Figure 4

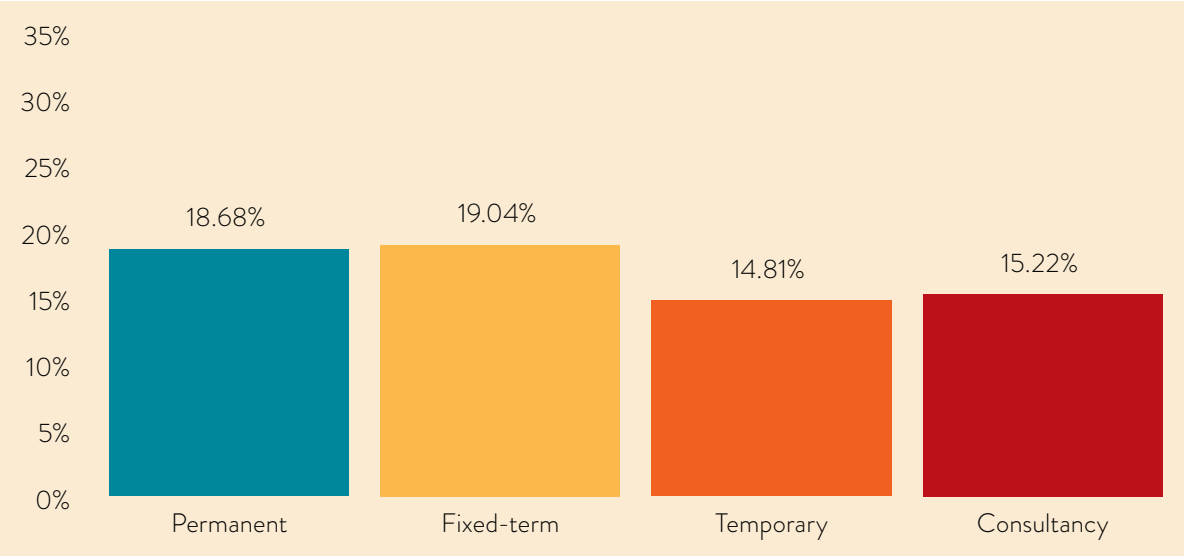
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR GAD, BY RELATIONSHIP STATUS



Note: The percentage of survey respondents screening positive for GAD, by relationship status, in proportion to respondents with the same relationship status completing the screening instrument for GAD.

Figure 5

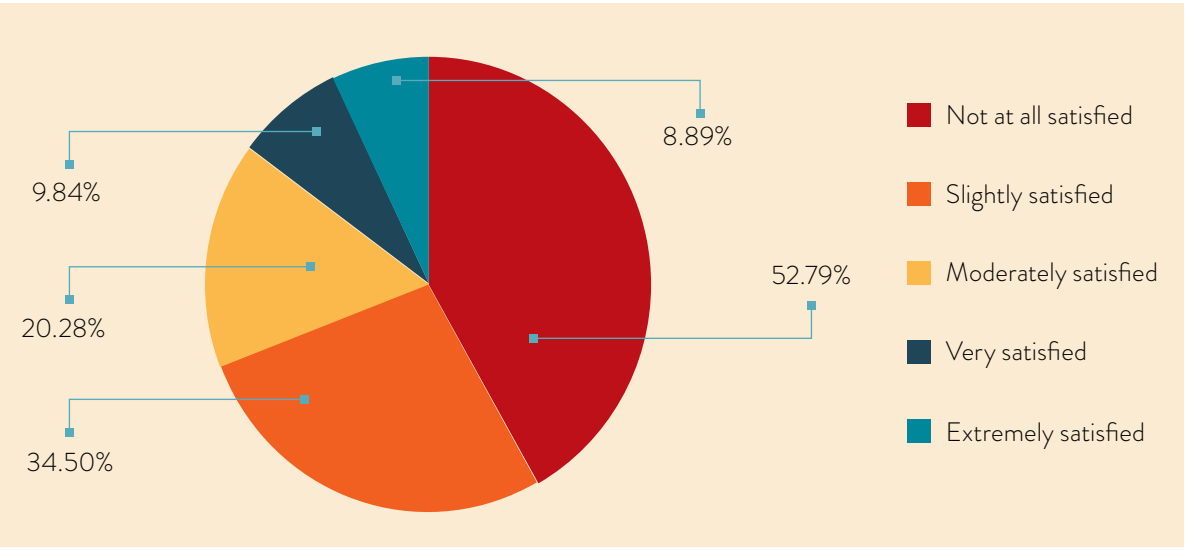
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR GAD, BY TYPE OF APPOINTMENT



Note: Different types of appointments of United Nations staff screening positive for GAD in proportion to all survey respondents with the same types of appointments who completed the screening instrument for GAD.

Figure 6

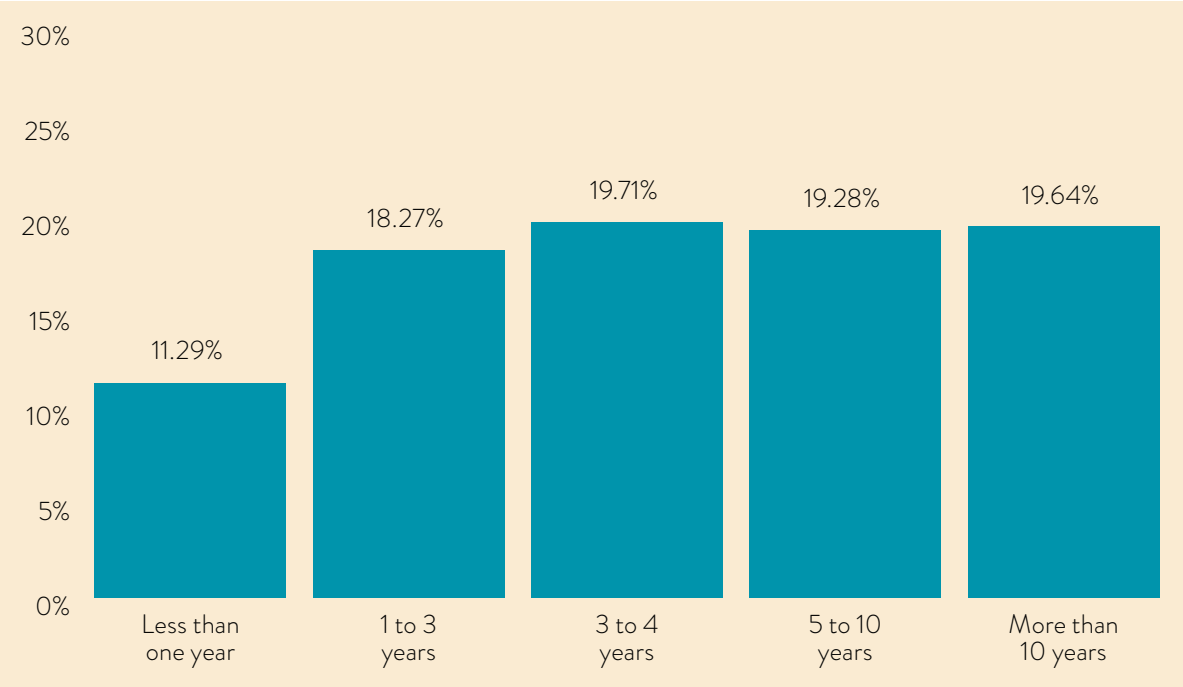
PERCENTAGES OF UNITED NATIONS STAFF SCREENING POSITIVE FOR GAD AT DIFFERENT LEVELS OF JOB SATISFACTION



Note: The percentage of United Nations staff screening positive for GAD in proportion to all survey respondents with the same level of job satisfaction who completed the respective screening instrument. Higher job satisfaction is strongly associated with lower levels of GAD ($p<.0001$).

Figure 7

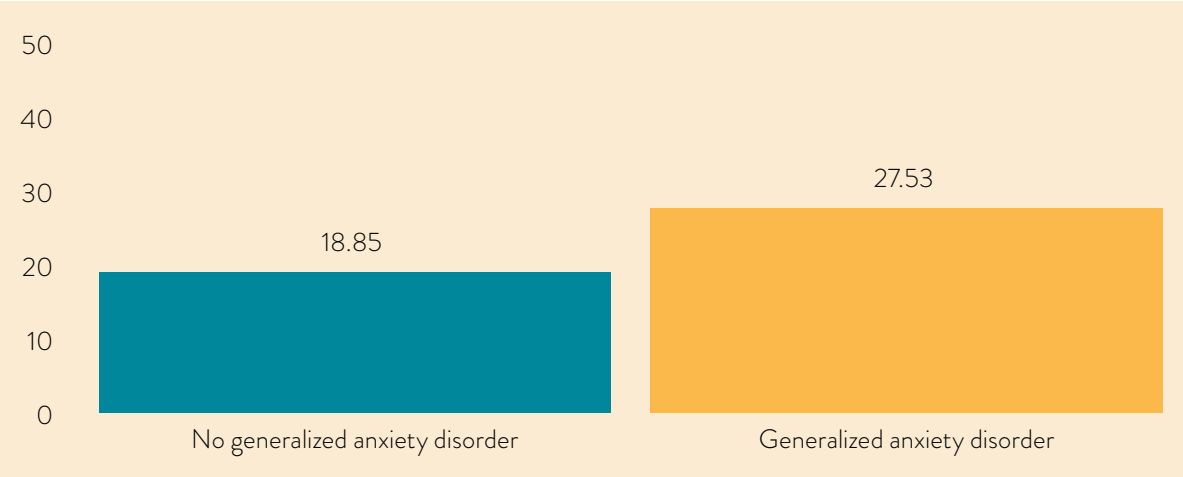
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR GAD, BY EMPLOYMENT DURATION



Note: Different employment periods of United Nations staff screening positive for GAD in proportion to all survey respondents with the same employment duration who fully completed the screening instrument for GAD.

Figure 8

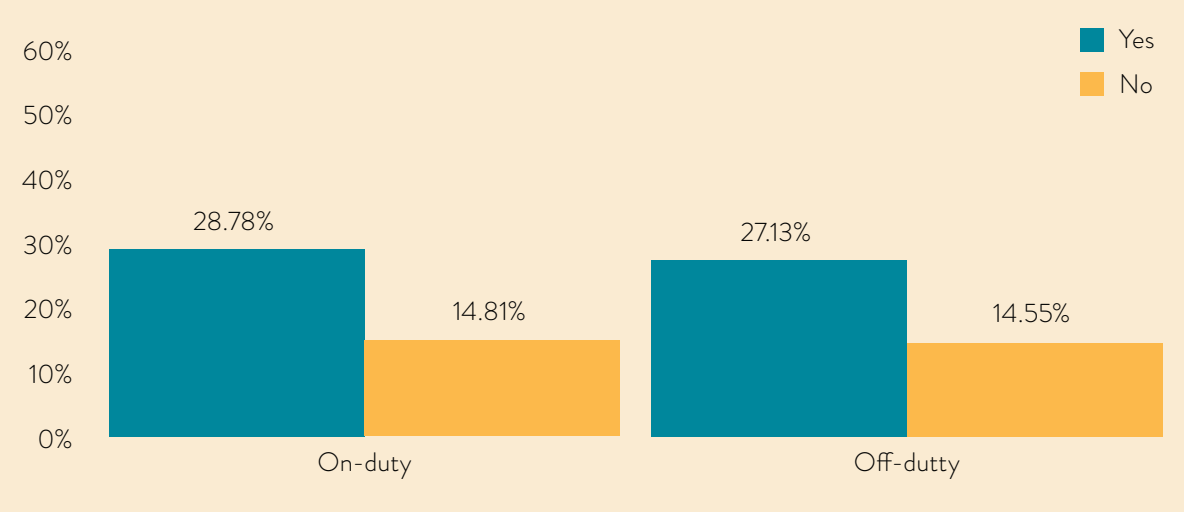
WORKPLACE INCIVILITY AND CONFLICT, BY GAD



Note: Average score on the Workplace Incivility Scale for United Nations staff screening positive for GAD compared with staff screening negative for GAD.

Figure 9

PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR GAD, BY TRAUMA EXPOSURE



Note: The percentage of United Nations staff screening positive for GAD reporting trauma exposure during the previous 12 months in proportion to all survey respondents who screened positive for GAD and who completed the screening instrument for on-duty trauma exposure or off-duty trauma exposure.

Box 1

SUMMARY OF THE KEY FINDINGS AND MAIN CHARACTERISTICS OF UNITED NATIONS PERSONNEL REPORTING SYMPTOMS CONSISTENT WITH GAD

18 per cent of United Nations staff endorsed symptoms consistent with a diagnosis of GAD (n = 2,759). GAD was significantly more frequent when:

- the gender of the staff member was female
- the staff member was not in a relationship or their relationship was not recognized by the United Nations
- the type of appointment was permanent or fixed-term
- the staff member had been working for the United Nations for longer than one year
- the staff member was not at all satisfied or slightly satisfied with their job
- the staff member reported more workplace incivility and occupational conflicts
- the staff member had been exposed to a traumatic event during the previous 12 months.

The most important predictor of United Nations staff screening positive for GAD was job satisfaction followed by duration of United Nations employment, age and trauma exposure.

POST-TRAUMATIC STRESS DISORDER

Exposure to violence, injury and death are prototypical examples of potentially traumatic events. A total of 36 per cent of adults worldwide experience traumatic accidents or injuries during their lives; these experiences are the most common types of psychologically traumatic events (Shalev, Liberzon and Marmar, 2017). Although the majority of individuals do not develop chronic mental health issues in the wake of a potentially traumatic event, studies consistently find that a significant minority of people will develop PTSD, a mental health issue characterized by recurrent, involuntary distressing memories of the event and avoidance of situations, people, places or activities that remind them of the events (ibid., 2017).

In the United Nations staff well-being survey, 20 per cent of the personnel (n = 2,823) screened positive for PTSD (figure 1). The likelihood of endorsing symptoms consistent with PTSD was significantly associated with age, gender and relationship status. Staff in the 55 and above age group were less likely to screen positive for PTSD compared with all other age groups (figure 10). PTSD was more frequent in women than in men (figure 11) and was more frequent in staff who were not in a relationship (figure 12). Parents of a dependent child or children screened positive for PTSD significantly more frequently than non-parents (figure 13).

With regard to occupational variables, duration of United Nations employment (figure 14), type of appointment (permanent, fixed-term, temporary or consultancy), recruitment type (local versus international staff) and job satisfaction (figure 17) were significantly associated with PTSD. United Nations consultants screened positive for PTSD less frequently than staff with other types of United Nations contracts (figure 15) and local United Nations staff screened positive for PTSD more frequently than international staff (figure 16). Individuals who screened positive for PTSD also reported higher levels of workplace incivility (figure 18). Trauma exposure was significantly associated with a higher frequency of PTSD (figure 19).

There were no significant differences in survey respondents screening positive for PTSD with regard to type of duty station (family versus non-family).

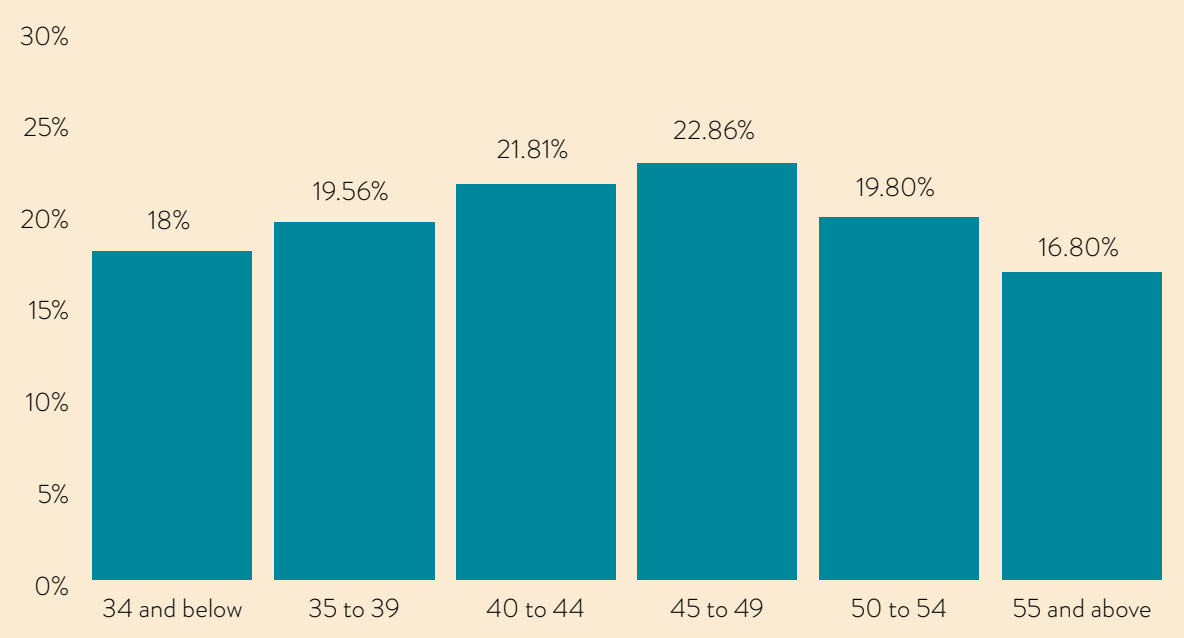
Predictors for the risk of PTSD

To identify which of the sociodemographic and occupational variables of United Nations personnel were the strongest predictors of screening positive for PTSD, a multivariable logistic regression analysis was calculated (see table 5, appendix D, for exact parameter estimates). When statistically controlling for the influence of all sociodemographic and occupational variables together, the risk of PTSD was predicted as follows:

- Staff of 55 years of age and above had a 1.92 times lower risk compared with staff younger than 35 years of age
- Staff in a relationship recognized by the United Nations had a 1.32 times lower risk compared with those who were not in a relationship
- Staff who were not parents of a dependent child had a 1.22 times lower risk than parents
- Staff with 5 to 10 years of work experience in the United Nations system had a 2 times higher risk, and those with more than 10 years of experience had a 2.5 times higher risk, than the newest recruits
- Staff who were the most satisfied with their job had a 5.9 times lower risk of endorsing symptoms consistent with PTSD, and those who were only slightly satisfied had a 1.3 times lower risk, than those who were not at all satisfied with their job
- Trauma exposure during the previous year increased the risk of screening positive for PTSD. Staff who did not report being exposed to trauma during the previous 12 months had about a 4 times lower risk of screening positive for PTSD.

Figure 10

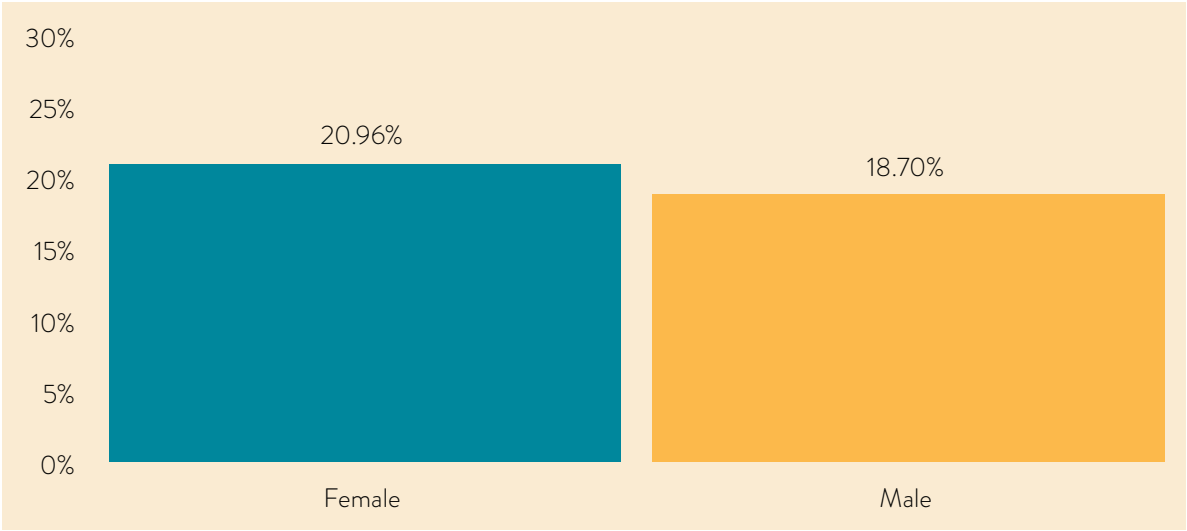
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY AGE GROUP



Note: Different age groups of United Nations staff screening positive for PTSD in proportion to all survey respondents completing the screening instrument for PTSD in that age group.

Figure 11

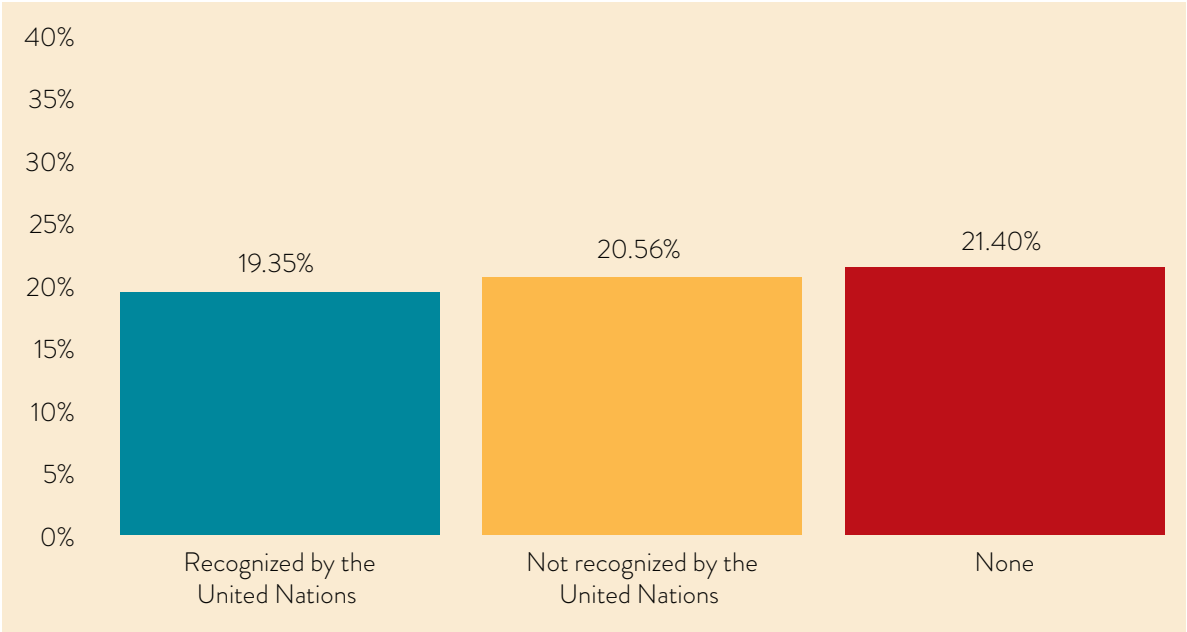
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY GENDER



Note: Female and male United Nations staff who screened positive for PTSD in proportion to the respective number of all female or male respondents completing the survey.

Figure 12

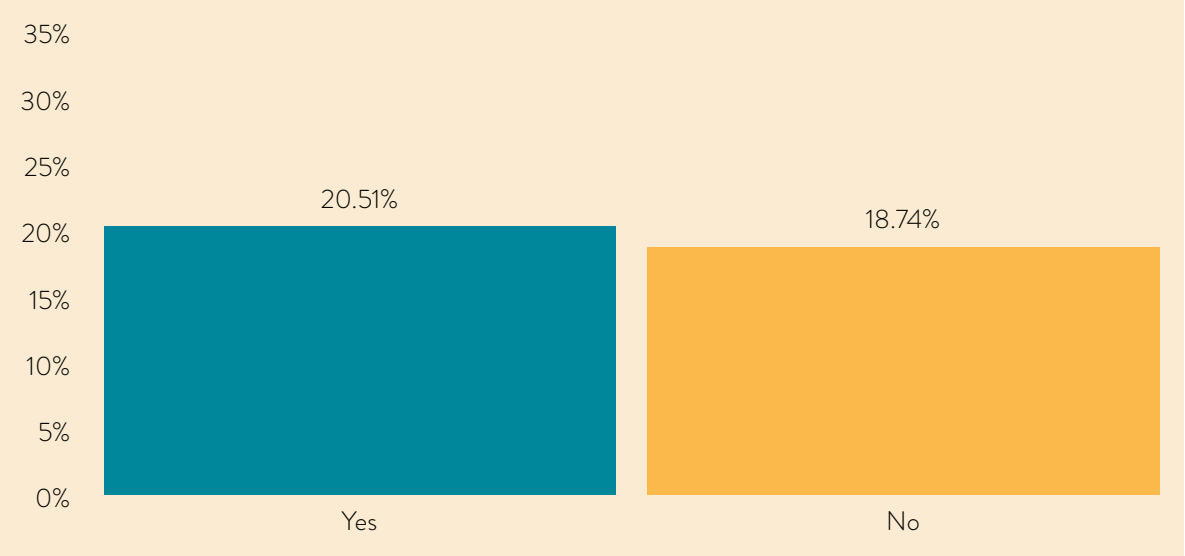
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY RELATIONSHIP STATUS



Note: The percentage of survey respondents screening positive for PTSD, by relationship status, in proportion to respondents completing the screening instrument for PTSD with the same relationship status.

Figure 13

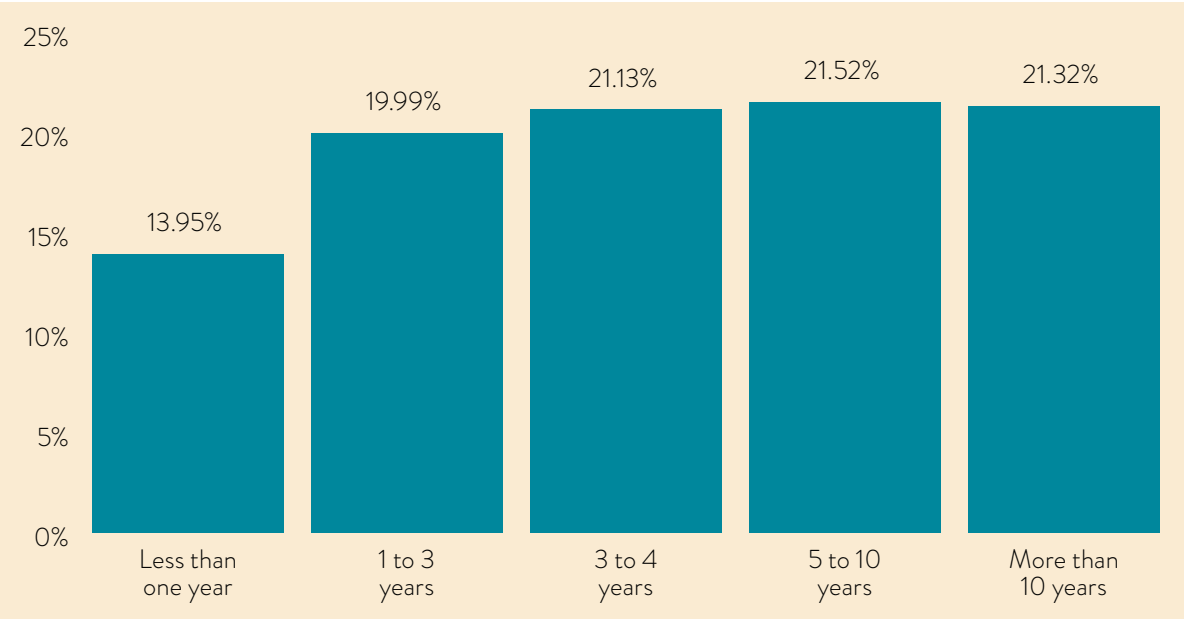
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY PARENTHOOD STATUS



Note: The percentage of United Nations staff with and without a dependent child who reported symptoms consistent with PTSD in proportion to all survey respondents who completed the screening instrument for PTSD.

Figure 14

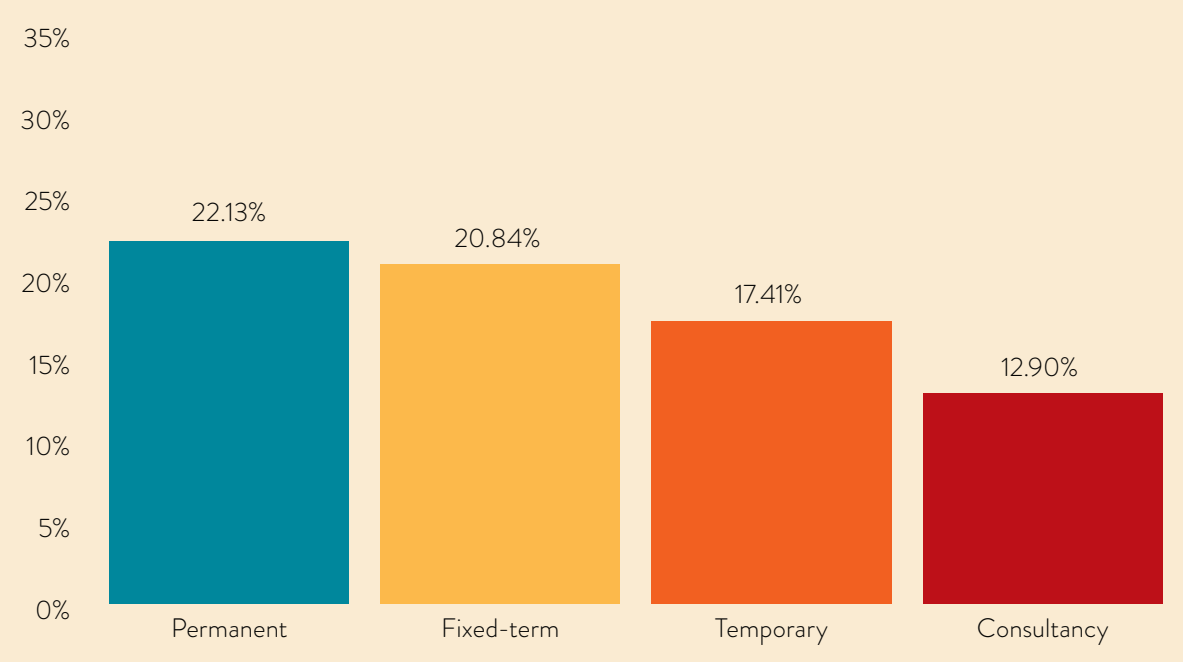
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY EMPLOYMENT DURATION



Note: Different employment periods of United Nations staff screening positive for PTSD in proportion to all survey respondents with the same employment duration who fully completed the screening instrument for PTSD.

Figure 15

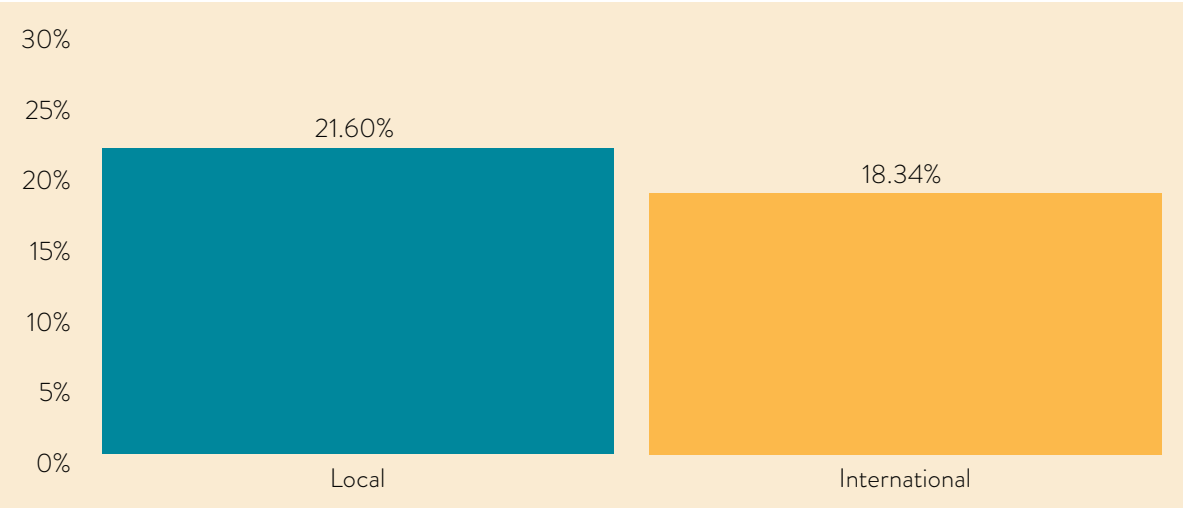
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY TYPE OF APPOINTMENT



Note: Different types of appointments of United Nations staff screening positive for PTSD in proportion to all survey respondents with the same types of appointments who completed the screening instrument for PTSD.

Figure 16

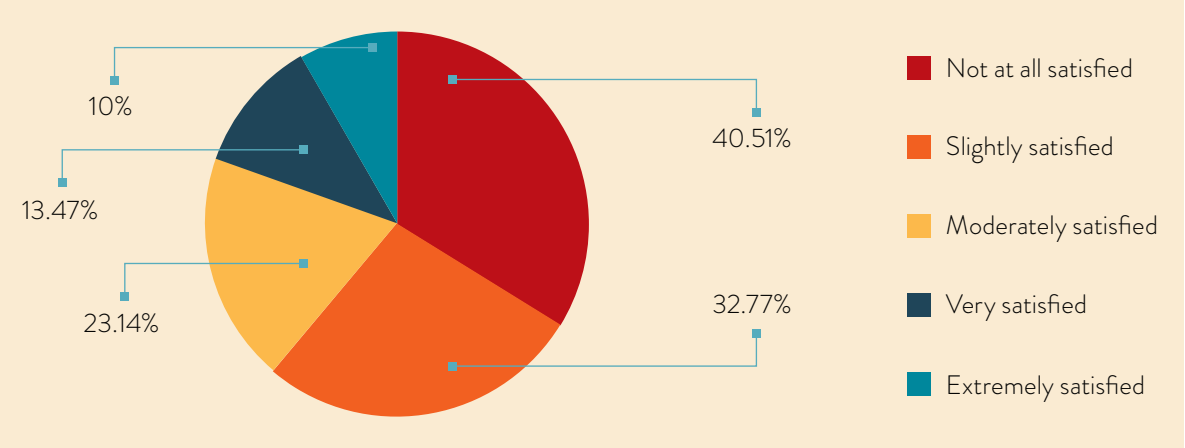
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY RECRUITMENT TYPE



Note: The percentage of United Nations staff screening positive for PTSD, by recruitment type (local versus. international), in proportion to all survey respondents with the same recruitment type who completed the screening instrument for PTSD.

Figure 17

PERCENTAGES OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD AT DIFFERENT LEVELS OF JOB SATISFACTION



Note: The percentage of United Nations staff screening positive for PTSD in proportion to all survey respondents with the same level of job satisfaction who completed the respective screening instrument. Higher job satisfaction is strongly associated with lower levels of PTSD ($p < .0001$).

Box 2

SUMMARY OF THE KEY FINDINGS AND MAIN CHARACTERISTICS OF UNITED NATIONS PERSONNEL REPORTING SYMPTOMS CONSISTENT WITH PTSD

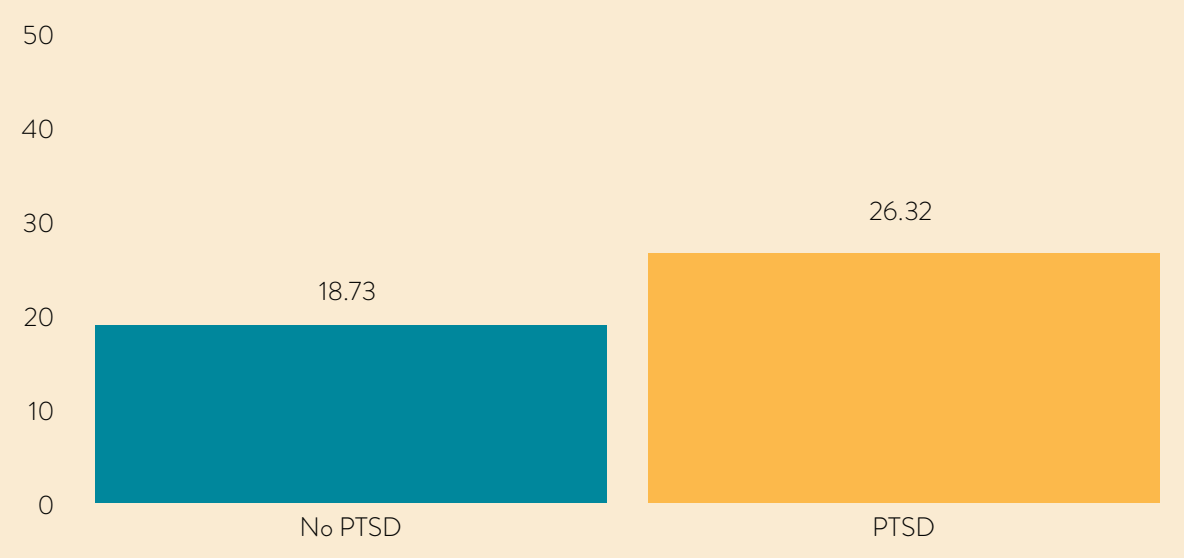
20 per cent of United Nations staff endorsed symptoms consistent with a diagnosis of PTSD (n = 2,823). More than 40 per cent of those screening positive for PTSD reported exposure to a traumatic event in the previous 12 months. PTSD was significantly more frequent when:

- the age of the staff member was between 40 and 50 years
- the gender was female
- the staff member was not in a relationship or their relationship was not recognized by the United Nations
- the staff member was the parent of a dependent child
- the staff member had been working for longer than one year for the United Nations
- the type of appointment was permanent or fixed-term
- the recruitment type was local
- the staff member was not at all satisfied or slightly satisfied with their job
- the staff member reported more workplace incivility and occupational conflicts
- the staff member had been exposed to a traumatic event during the previous 12 months.

The most important predictor of United Nations staff screening positive for PTSD was job satisfaction followed by trauma exposure in the past year and duration of United Nations employment.

Figure 18

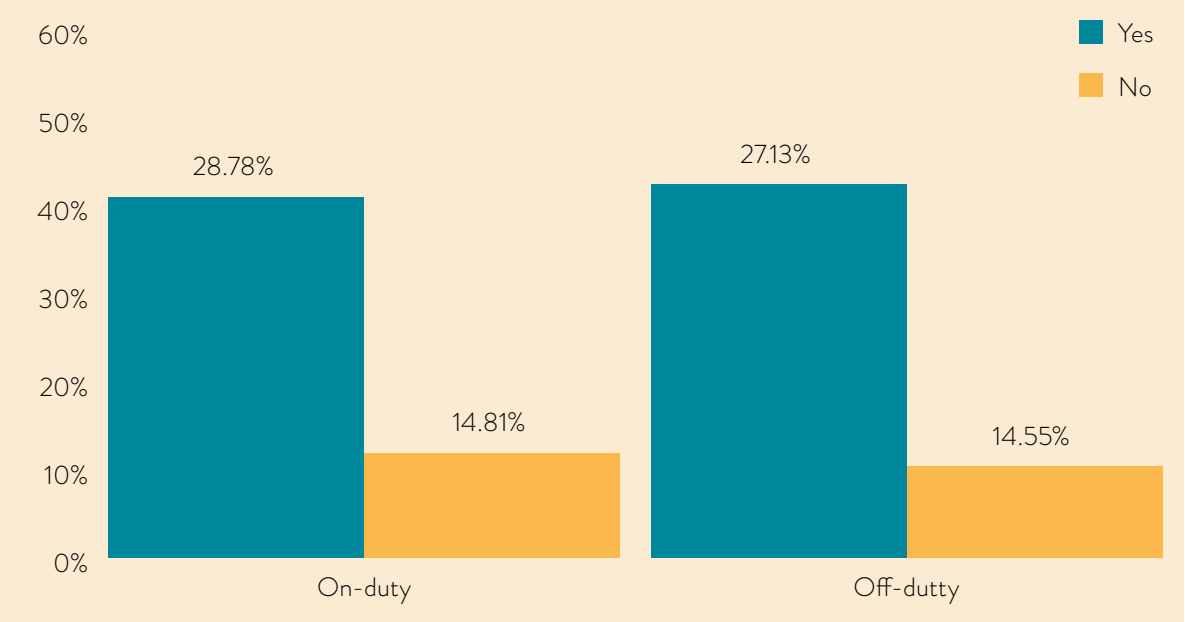
WORKPLACE INCIVILITY, BY PTSD



Note: Average score on the Workplace Incivility Scale for United Nations staff screening positive for PTSD compared with staff screening negative for PTSD.

Figure 19

PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR PTSD, BY TRAUMA EXPOSURE



Note: The percentage of United Nations staff with PTSD reporting trauma exposure during the previous t 12 months in proportion to all survey respondents who screened positive for PTSD and who completed the screening instrument for on-duty trauma exposure or off-duty trauma exposure.

MAJOR DEPRESSIVE DISORDER

Changes in mood, interest, cognition and pleasure affect everyone during a lifetime; these normally do not constitute mental health problems but rather reflect natural fluctuations of everyday life. Sometimes, however, such changes can persist and accumulate to a degree that may lead to serious problems of well-being and mental health. For instance, chronic levels of fatigue, energy loss or sadness over the course of more than two weeks, feelings of worthlessness or excessive guilt, or markedly diminished interest in almost all activities may indicate a potential mental health problem. Such problems may cause clinically relevant distress or impairment in important social or occupational areas of functioning (Otte et al., 2016).

Survey results indicate that 23 per cent of United Nations staff respondents screened positive for MDD (n = 3,417). Screening positive for MDD occurred more frequently among staff younger than age 50 (figure 20). Women reported symptoms consistent with MDD more often than men (figure 21). Staff who were not in a relationship or who were in a relationship not recognized by the United Nations screened positive for MDD more frequently than staff who were in a relationship that was recognized by the Organization (for example, marriage or a recognized partnership) (figure 22). Parenthood status was not significantly associated with MDD.

Staff in family duty stations screened positive for MDD more frequently than those in non-family duty stations (figure 23). Staff who had worked for the United Nations for less than one year screened positive for MDD significantly less often than did staff with more United Nations experience (figure 24). United Nations consultants more frequently endorsed symptoms consistent with MDD compared with those with temporary, fixed-term or permanent contracts (figure 25). Local staff were significantly more likely than international staff to screen positive for MDD (figure 26). Furthermore, lower job satisfaction was significantly associated with a higher rate of MDD (figure 27). Individuals who screened positive for MDD reported significantly higher levels of workplace incivility (figure 28). The rate of MDD was also significantly higher in United Nations staff who had experienced traumatic events during the previous 12 months either at work or off-duty (figure 29).

Predictors for the risk of MDD

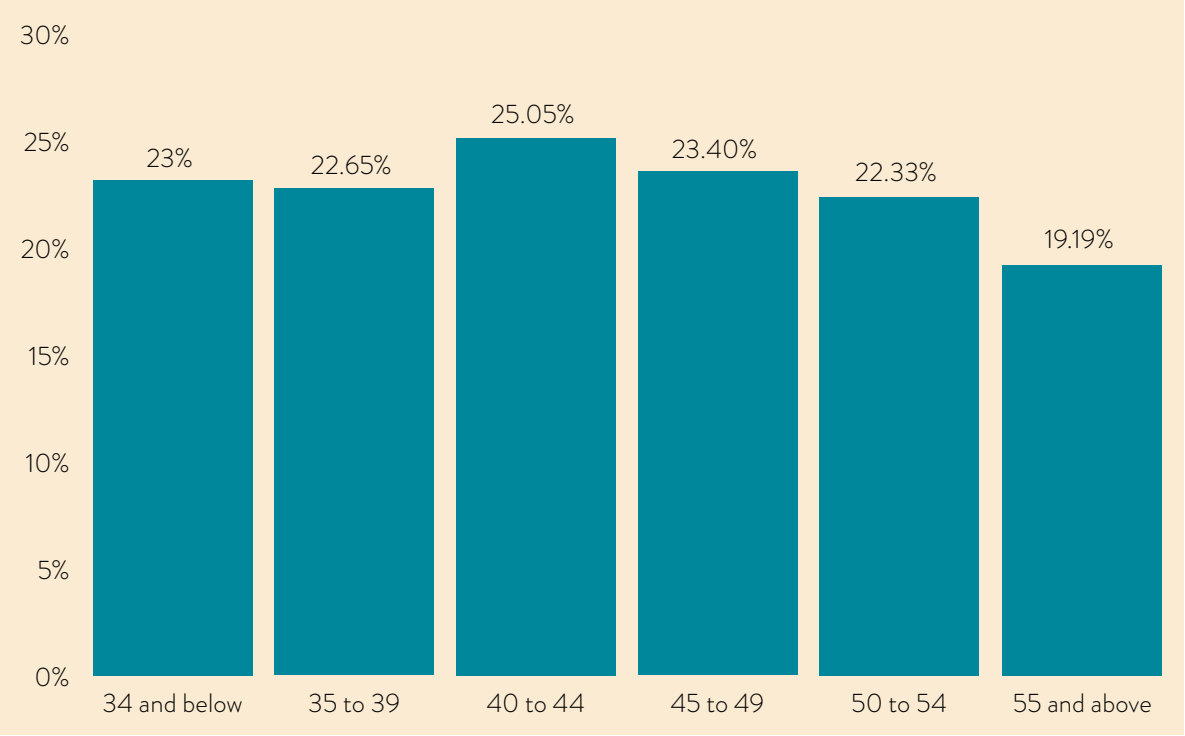
To identify which of the sociodemographic and occupational variables of United Nations personnel were the strongest predictors of screening positive for MDD, a multivariable logistic regression analysis was calculated (see table 6, appendix D, for exact parameter estimates).

When statistically controlling for the influence of all sociodemographic and occupational variables together, the risk of MDD was predicted as follows:

- Staff of 50 years of age and above had about a 1.7 times lower risk compared with staff younger than 35 years of age
- Staff with greater than five years of work experience in the United Nations system had about a 2 times higher risk compared with employees with less than three years of United Nations work experience
- Staff reporting the highest job satisfaction had about a 10 times lower risk of screening positive for MDD, and those with slight job satisfaction had a 1.9 times lower risk, compared with staff who were not at all satisfied with their job
- Trauma exposure increased the risk of screening positive for MDD. Staff who had not experienced a trauma during the previous 12 months had a 1.7 times lower risk of screening positive for MDD.

Figure 20

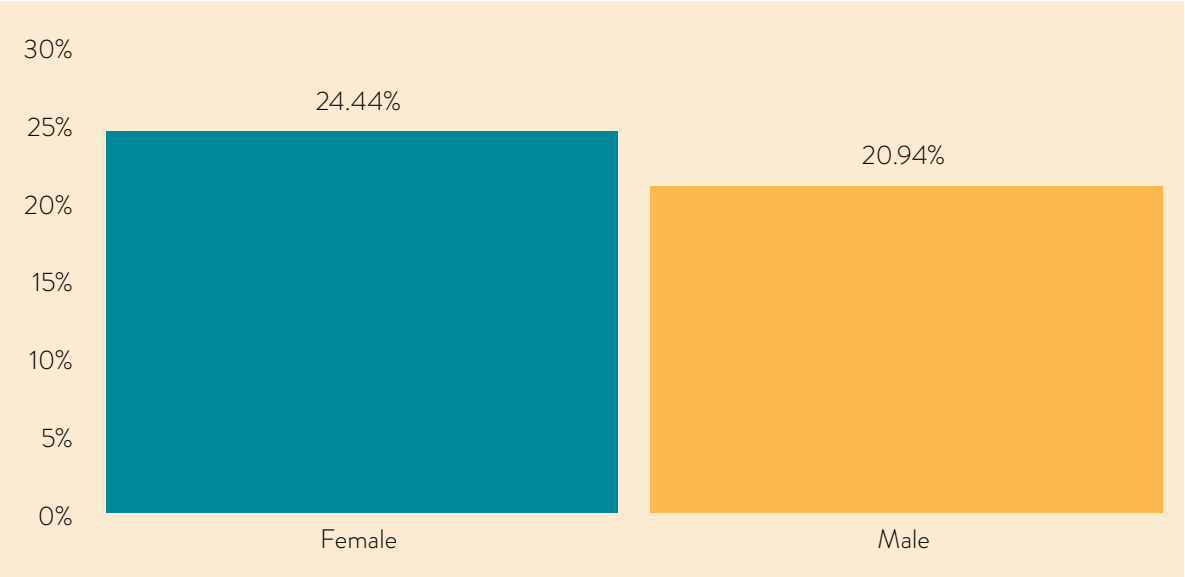
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY AGE GROUP



Note: Different age groups of United Nations staff screening positive for MDD in proportion to all survey respondents completing the screening instrument for MDD in that age group.

Figure 21

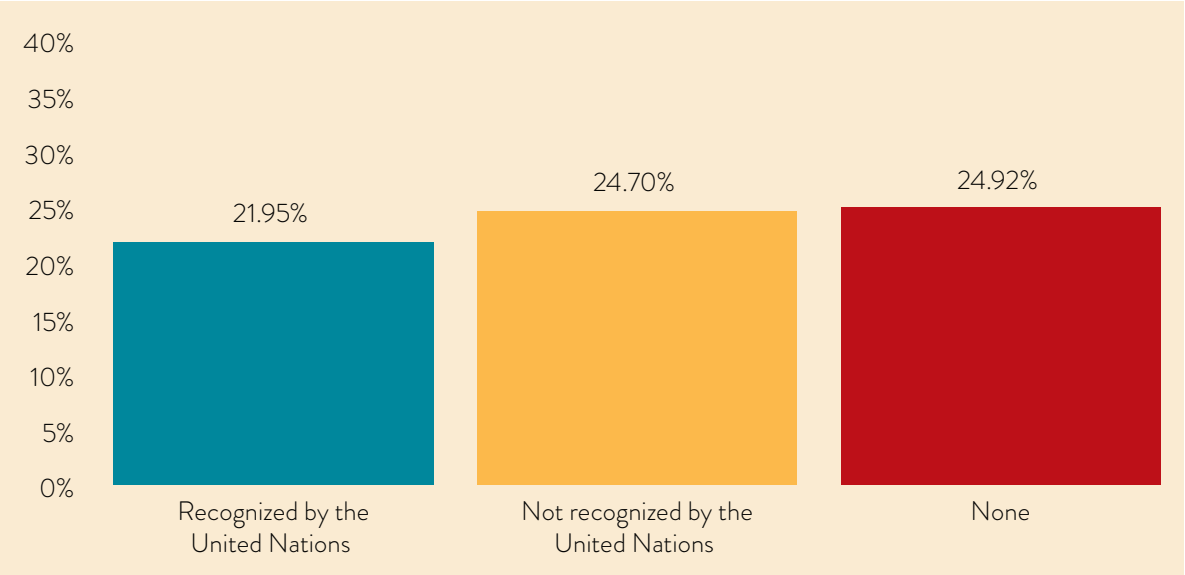
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY GENDER



Note: Female and male United Nations staff who screened positive for MDD in proportion to the respective number of all female or male respondents completing the survey.

Figure 22

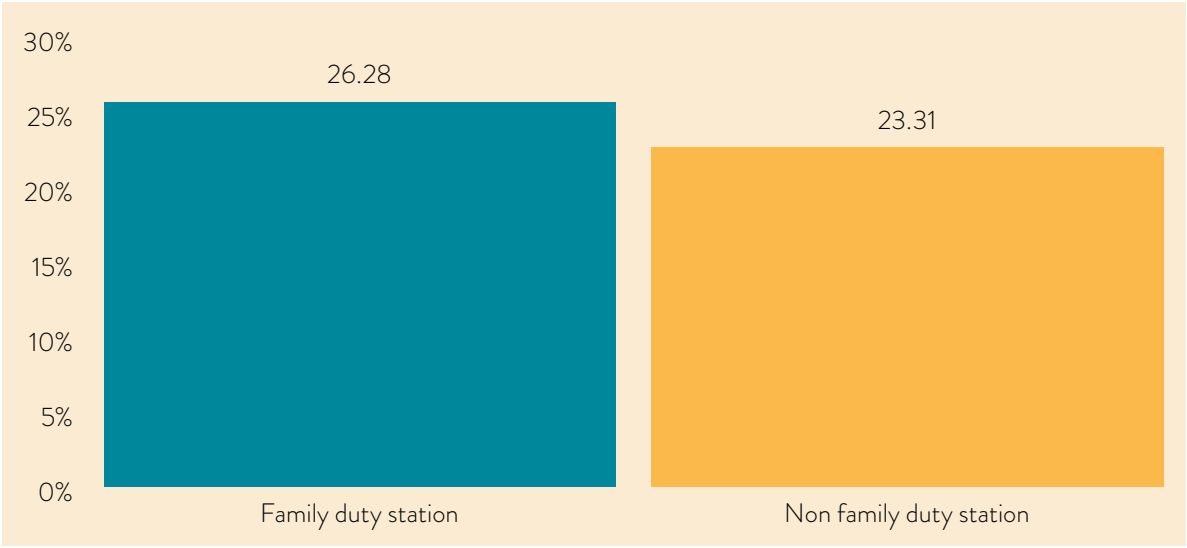
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY RELATIONSHIP STATUS



Note: The percentage of survey respondents reporting symptoms consistent with MDD, by relationship status, in proportion to respondents completing the screening instrument for MDD with the same relationship status.

Figure 23

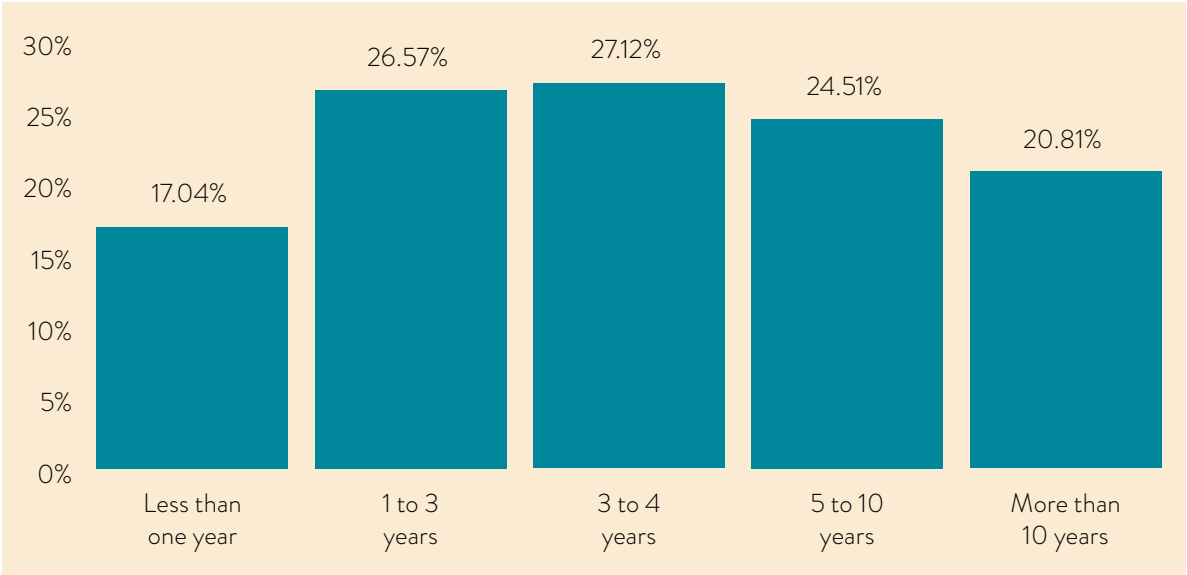
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY DUTY STATION TYPE



Note: The percentage of United Nations staff screening positive for MDD, by duty station type (family versus non-family), in proportion to all survey respondents with the same duty station type who completed the screening instrument for MDD.

Figure 24

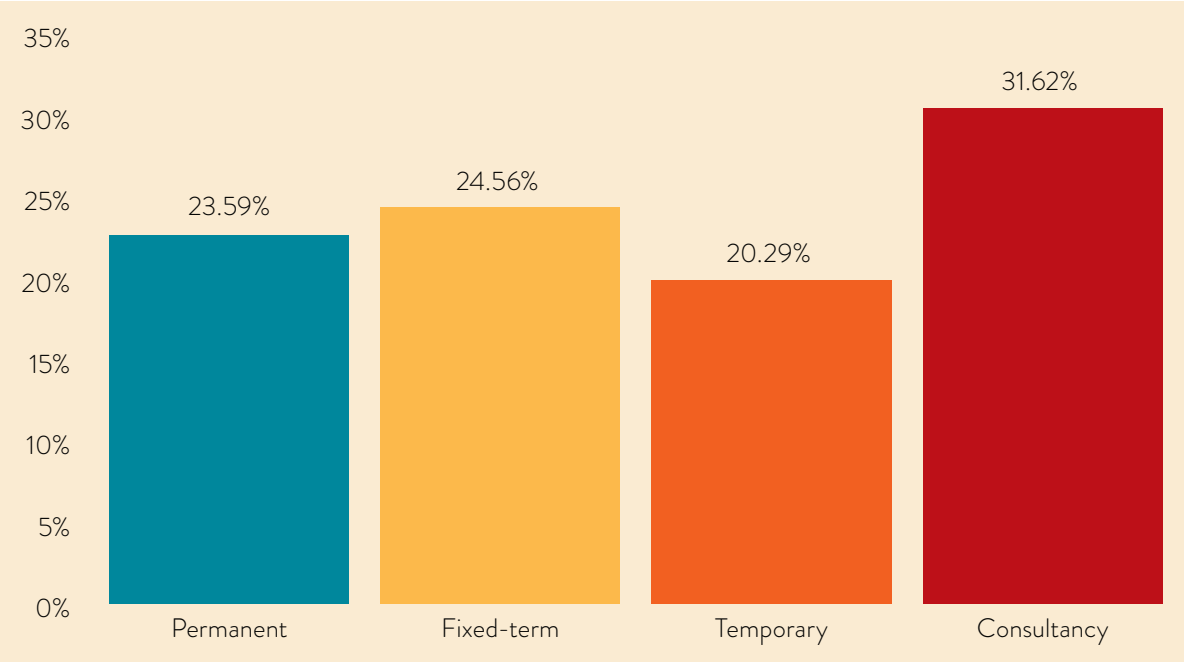
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY EMPLOYMENT DURATION



Note: Different employment periods of United Nations staff screening positive for MDD in proportion to all survey respondents with the same employment duration who fully completed the screening instrument for MDD.

Figure 25

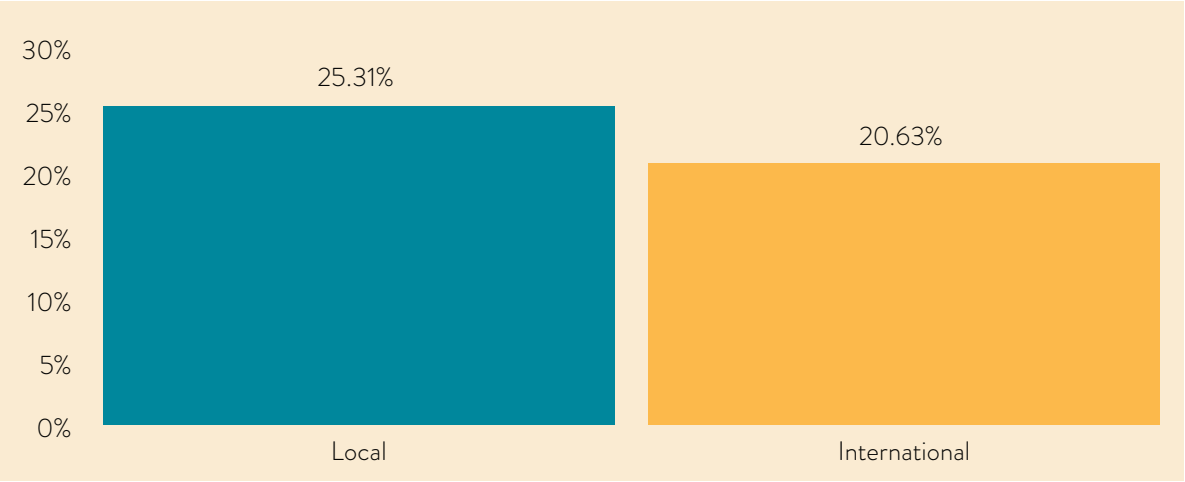
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY TYPE OF APPOINTMENT



Note: Different types of appointments of United Nations staff in proportion to all survey respondents with the same types of appointments who completed the screening instrument for MDD.

Figure 26

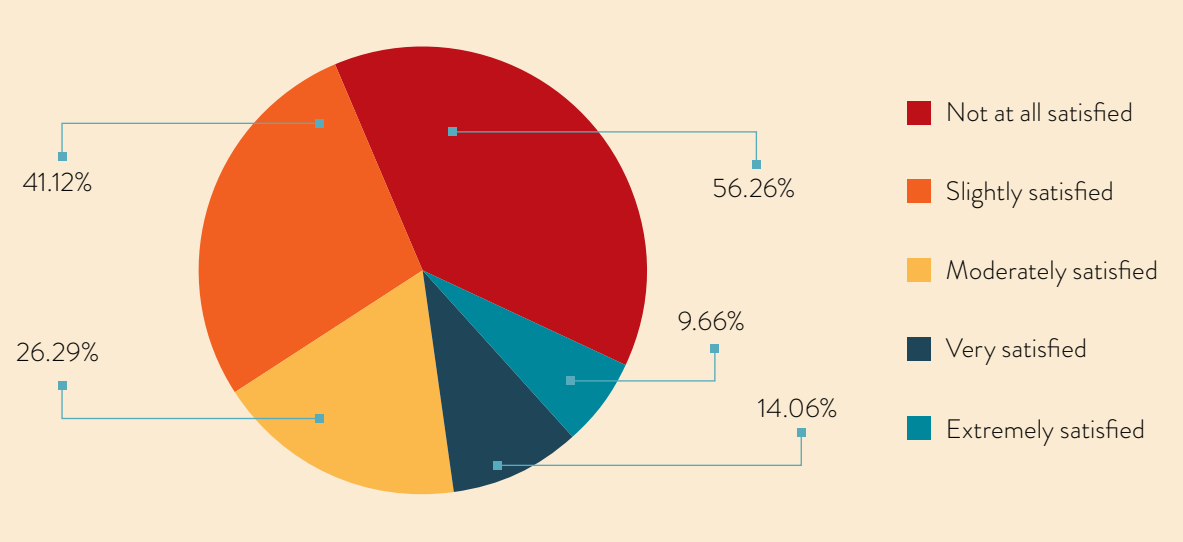
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY RECRUITMENT TYPE



Note: The percentage of United Nations staff screening positive for MDD, by recruitment type (local versus international), in proportion to all survey respondents with the same recruitment type who completed the screening instrument for MDD.

Figure 27

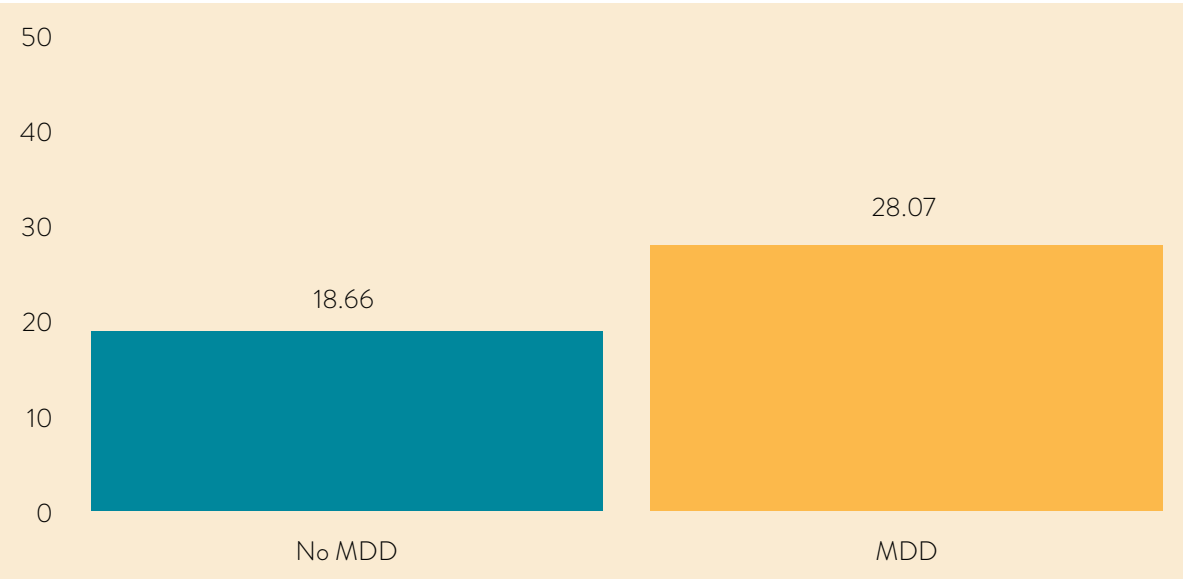
PERCENTAGES OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD AT DIFFERENT LEVELS OF JOB SATISFACTION



Note: The percentages of United Nations staff screening positive for MDD in proportion to all survey respondents with the same level of job satisfaction who completed the screening instrument. Higher job satisfaction is strongly associated with lower levels of MDD ($p < .0001$).

Figure 28

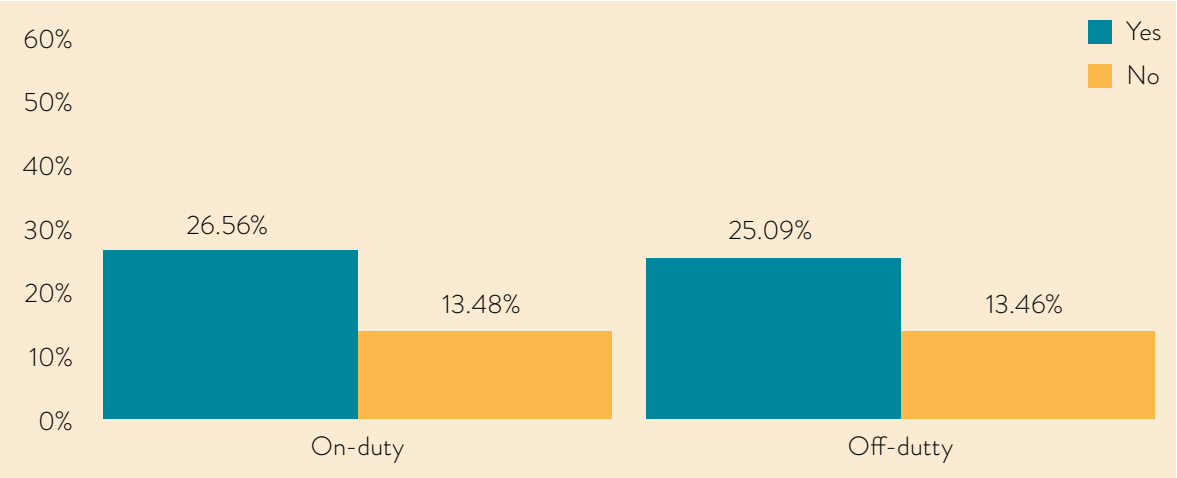
WORKPLACE INCIVILITY, BY MDD



Note: Average score on the Workplace Incivility Scale for United Nations staff screening positive for MDD compared with staff screening negative for MDD.

Figure 29

PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR MDD, BY TRAUMA EXPOSURE



Note: The percentage of United Nations staff with MDD reporting trauma exposure during the previous 12 months in proportion to all survey respondents who screened positive for MDD and who completed the screening instrument for on-duty trauma exposure or off-duty trauma exposure.

Box 3

SUMMARY OF THE KEY FINDINGS AND MAIN CHARACTERISTICS OF UNITED NATIONS PERSONNEL REPORTING SYMPTOMS CONSISTENT WITH MDD

23 per cent of United Nations staff endorsed symptoms consistent with a diagnosis of MDD (n = 3,417). MDD was significantly more frequent when:

- the age was younger than 55 years
- the gender was female
- the staff member was not in a relationship or their relationship was not recognized by the United Nations
- the staff member was working in a family duty station
- the staff member had been working longer than one year for the United Nations
- the type of appointment was consultancy
- the recruitment type was local
- the staff member was not at all satisfied or slightly satisfied with their job
- the staff member reported more workplace incivility and occupational conflicts
- the staff member had been exposed to a traumatic event during the previous 12 months.

The most important predictors of United Nations staff screening positive for MDD were job satisfaction followed by duration of United Nations employment, age and trauma exposure.

HAZARDOUS DRINKING

Alcohol consumption is very common in many cultures and, while differently received depending on social norms, not inherently problematic for health or well-being. Beyond a certain threshold, however, the amount of alcohol per body mass consumed can become harmful and even hazardous to an individual. Hazardous drinking is defined as a "quantity or pattern of alcohol consumption that places the individual at risk for adverse health events", while harmful drinking is "alcohol consumption that negatively affects physical and mental health" (Fujii et al., 2016); both are recognized by the World Health Organization (WHO). Overuse of alcohol can also sometimes be indicative of underlying mental health issues, including those that may not manifest as emotional symptoms. It may also affect important aspects of people's social and occupational functioning, thus causing significant levels of mental distress.

A total of 23 per cent of United Nations staff screened positive for hazardous drinking (n = 3,370). With regard to age, staff younger than 34 years of age screened positive for hazardous drinking more frequently than the other age groups (figure 30). Staff in a partnership recognized by their organization were less likely to screen positive for hazardous drinking than other staff, while those in a relationship not recognized by the United Nations were at a relatively greater risk for the overuse of alcohol (figure 31). Staff who were not parents of dependent children screened positive for hazardous drinking 11 per cent more frequently than parents (figure 32).

United Nations staff based in a family duty station screened positive for hazardous drinking more often than staff in non-family duty stations (figure 33). Staff with less than three years of experience in the United Nations system screened positive for hazardous drinking more frequently than employees with more experience with the United Nations (figure 34). Survey respondents on a consultancy contract screened positive for hazardous drinking more frequently than those on temporary contracts (figure 35). Locally recruited staff screened positive for hazardous drinking significantly less frequently than international staff (figure 36). Job satisfaction (figure 37) was significantly associated with hazardous drinking. Individuals who screened positive for hazardous drinking reported significantly higher levels of workplace incivility (figure 38). Staff who had experienced a potentially traumatic event at work were more likely to screen positive for hazardous drinking; in contrast, off-duty trauma exposure was not related to alcohol overuse (figure 39).

Predictors for the risk of hazardous drinking

To identify which of the sociodemographic and occupational variables of United Nations personnel were the strongest predictors of screening positive for hazardous drinking, a

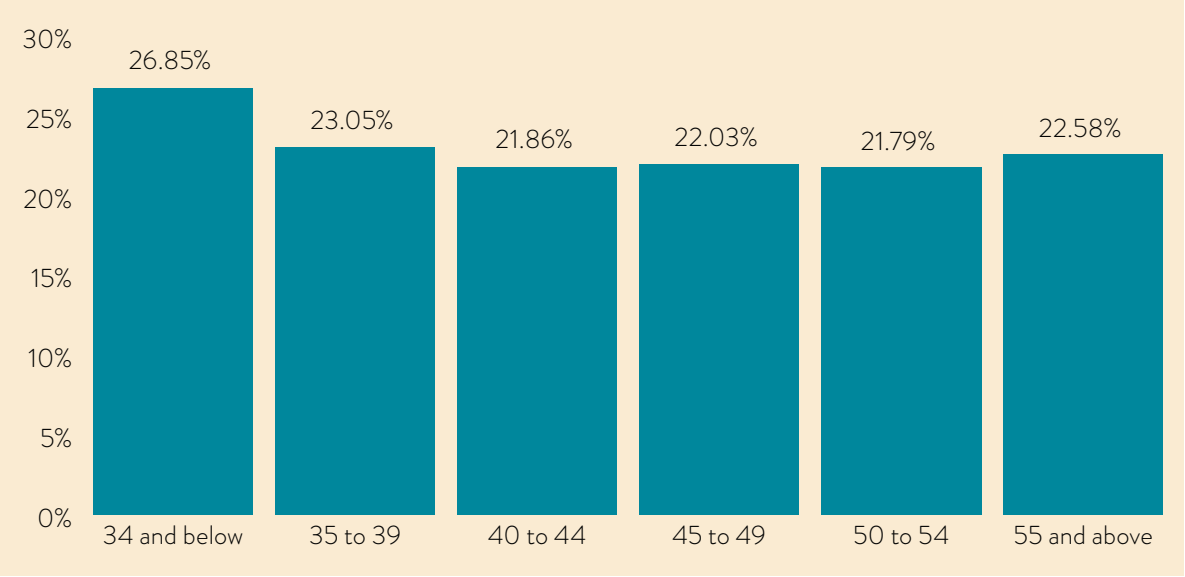
multivariable logistic regression analysis was calculated (see table 7, appendix D, for exact parameter estimates). When statistically controlling for the influence of all sociodemographic and occupational variables together, the risk of hazardous drinking was predicted as follows:

- Staff in a relationship not recognized by the United Nations had a 1.7 times higher risk of screening positive compared with staff not in a relationship
- Staff who were not parents of a dependent child or children had a 1.7 times higher risk compared with non-parents
- Staff with a temporary United Nations contract had a 1.5 times lower risk for hazardous drinking than those with a permanent contract
- Staff who were extremely satisfied with their job had a 1.4 times lower risk for screening positive for hazardous drinking than those who were not at all satisfied with their job
- Staff who had not reported trauma exposure during the previous12 months had about a 1.3 times lower risk than those who had reported traumatic exposure.

There were no significant differences in the prevalence of hazardous drinking with regard to gender (NB: the clinical cut-off for men on the AUDIT-C is higher than for women).

Figure 30

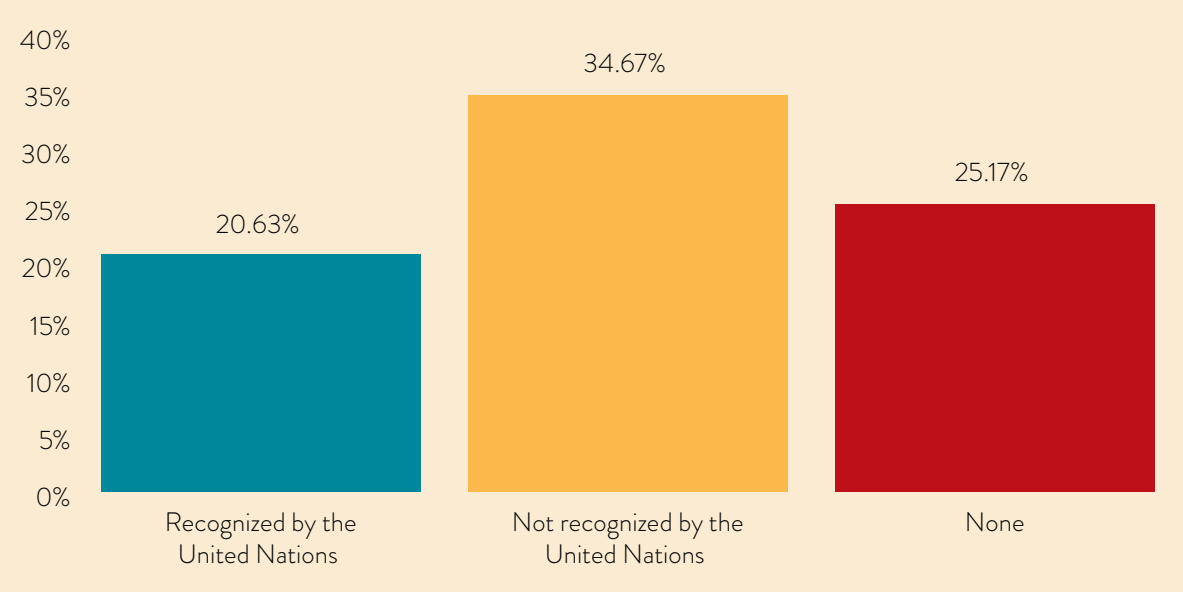
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY AGE GROUP



Note: Different age groups of United Nations staff screening positive for hazardous drinking in proportion to all survey respondents completing the screening instrument for hazardous drinking in that age group.

Figure 31

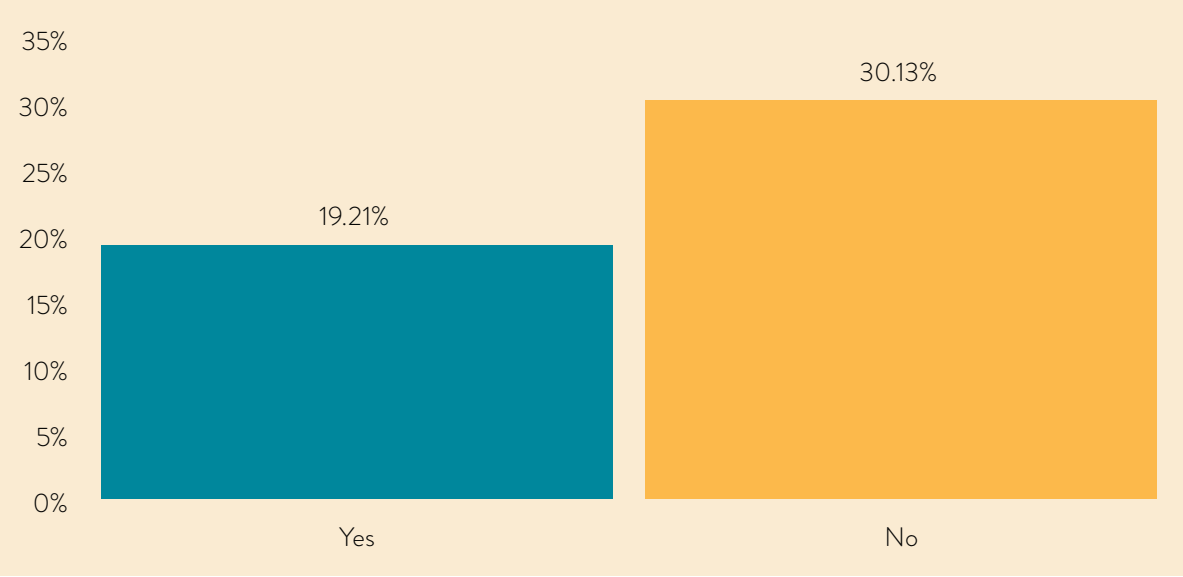
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY RELATIONSHIP STATUS



Note: The percentage of survey respondents screening positive for hazardous drinking, by relationship status, in proportion to respondents with the same relationship status completing the screening instrument.

Figure 32

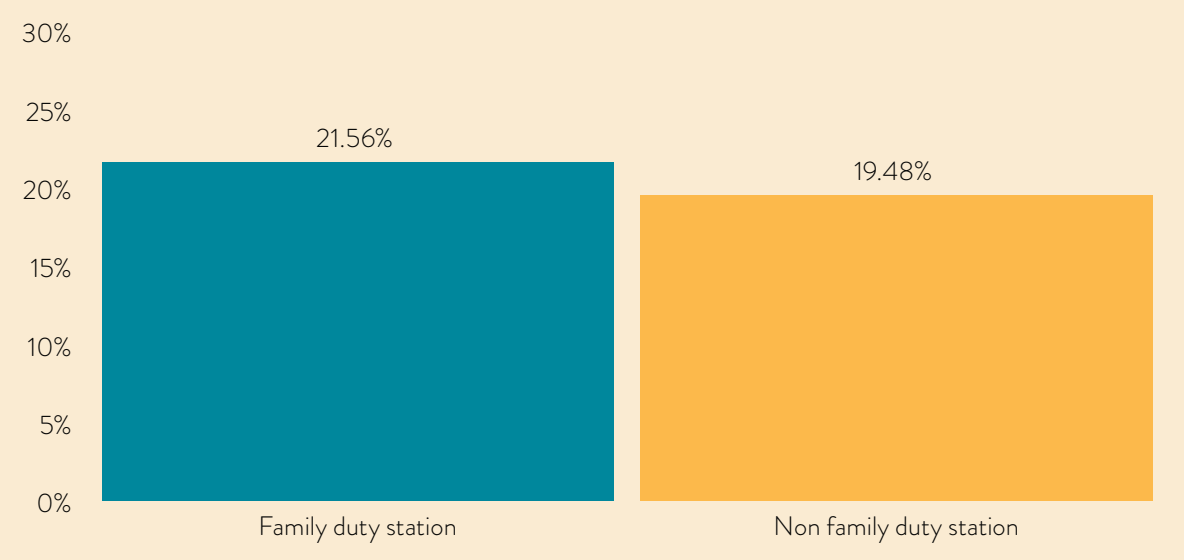
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY PARENTHOOD STATUS



Note: The percentage of United Nations staff with and without a dependent child who screened positive for hazardous drinking in proportion to all survey respondents who completed the screening instrument for hazardous drinking.

Figure 33

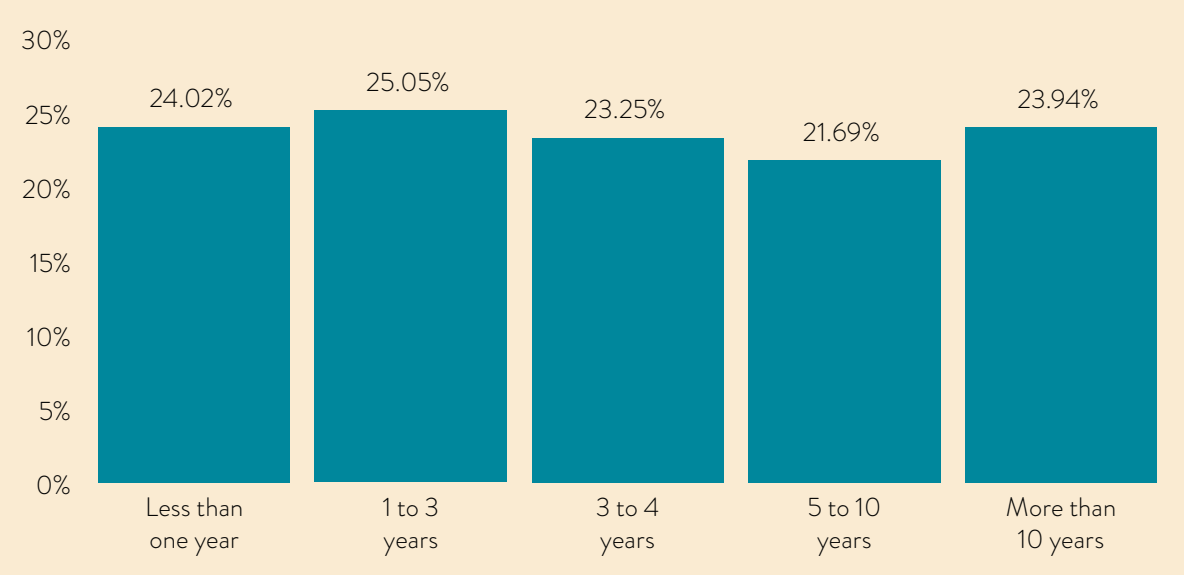
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY DUTY STATION TYPE



Note: The percentage of United Nations staff screening positive for hazardous drinking, by duty station type (family versus non-family), in proportion to all survey respondents with the same duty station type who completed the screening instrument for hazardous drinking.

Figure 34

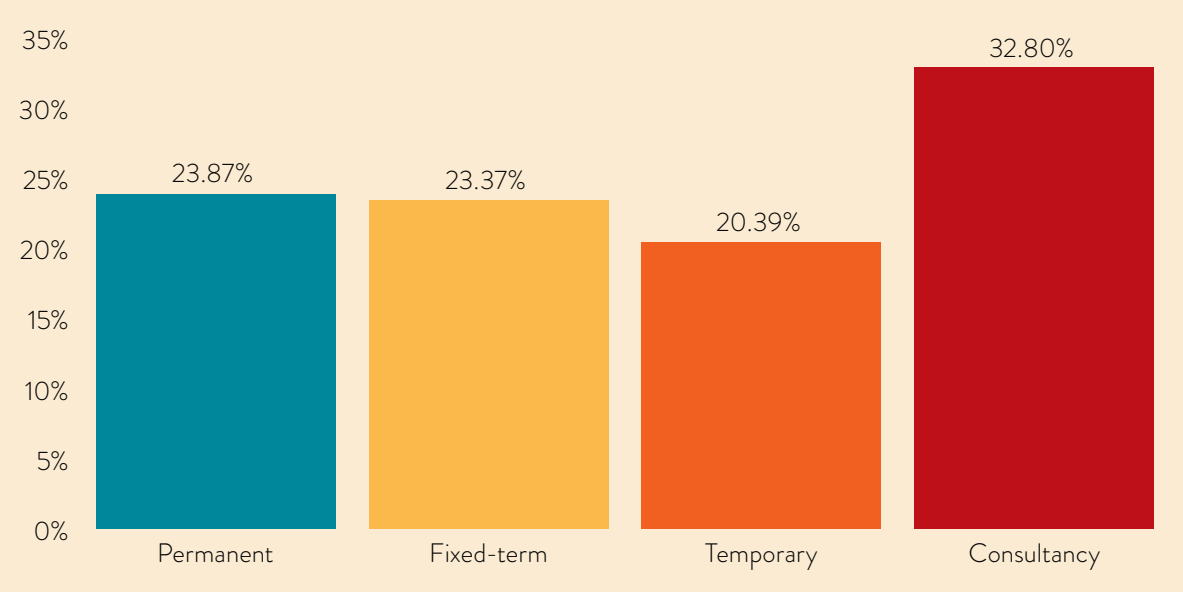
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY NUMBER OF YEARS WORKED IN THE UNITED NATIONS SYSTEM



Note: Different employment periods of United Nations staff screening positive for hazardous drinking in proportion to all survey respondents with the same employment duration who fully completed the screening instrument for hazardous drinking.

Figure 35

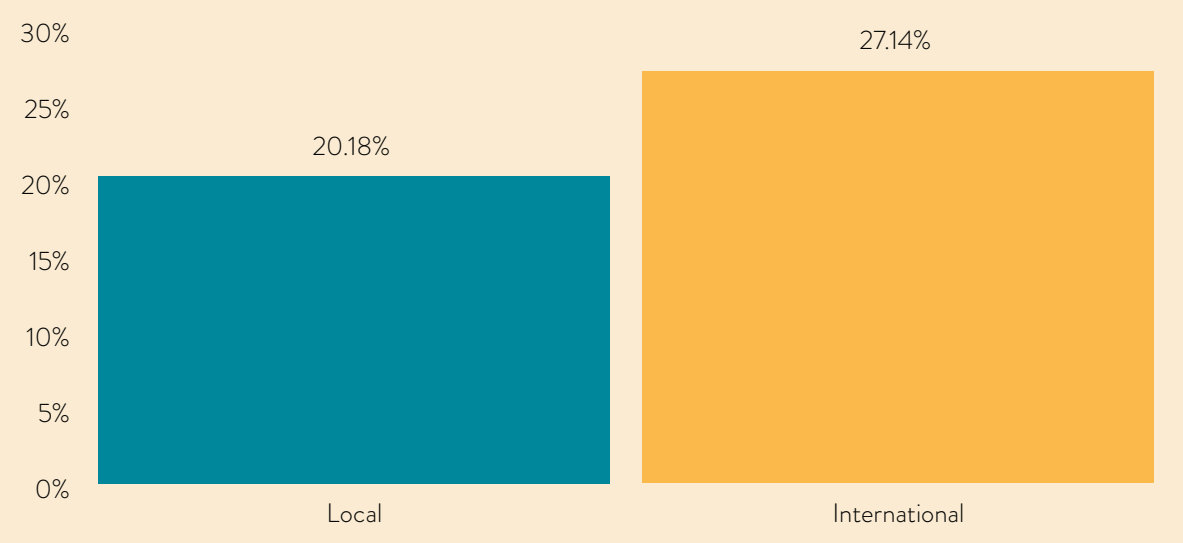
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY TYPE OF APPOINTMENT



Note: Different types of appointments of United Nations staff in proportion to all survey respondents with the same types of appointments who completed the screening instrument for hazardous drinking.

Figure 36

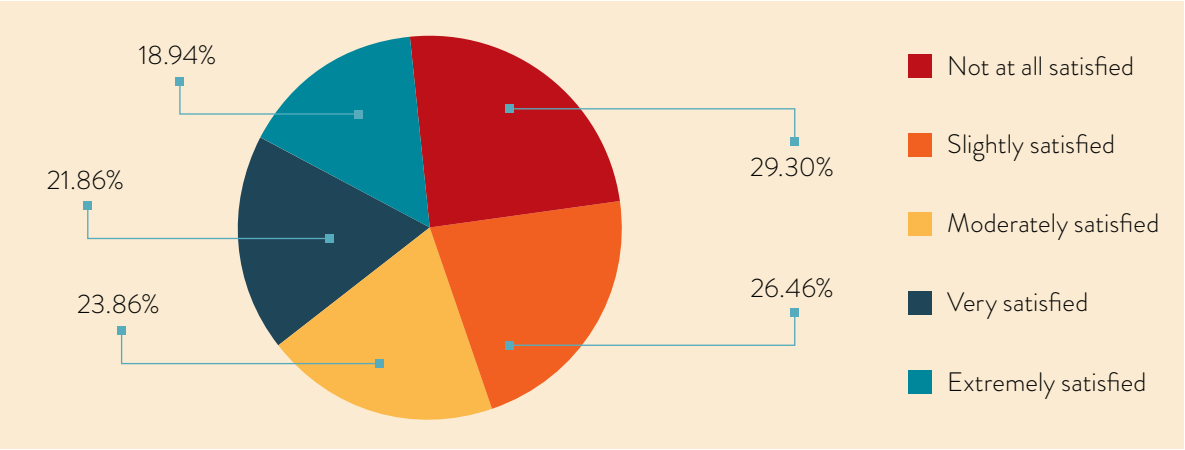
PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY RECRUITMENT TYPE



Note: The percentage of United Nations staff screening positive for hazardous drinking, by recruitment type (local versus international), in proportion to all survey respondents with the same recruitment type who completed the screening instrument for hazardous drinking.

Figure 37

PERCENTAGES OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING AT DIFFERENT LEVELS OF JOB SATISFACTION



Note: The percentages of United Nations staff screening positive for hazardous drinking in proportion to all survey respondents with the same level of job satisfaction who completed the respective screening instrument. Higher job satisfaction is strongly associated with lower levels of hazardous drinking (p<.0001).

Box 4

SUMMARY OF THE KEY FINDINGS AND MAIN CHARACTERISTICS OF UNITED NATIONS PERSONNEL REPORTING SYMPTOMS CONSISTENT WITH HAZARDOUS DRINKING

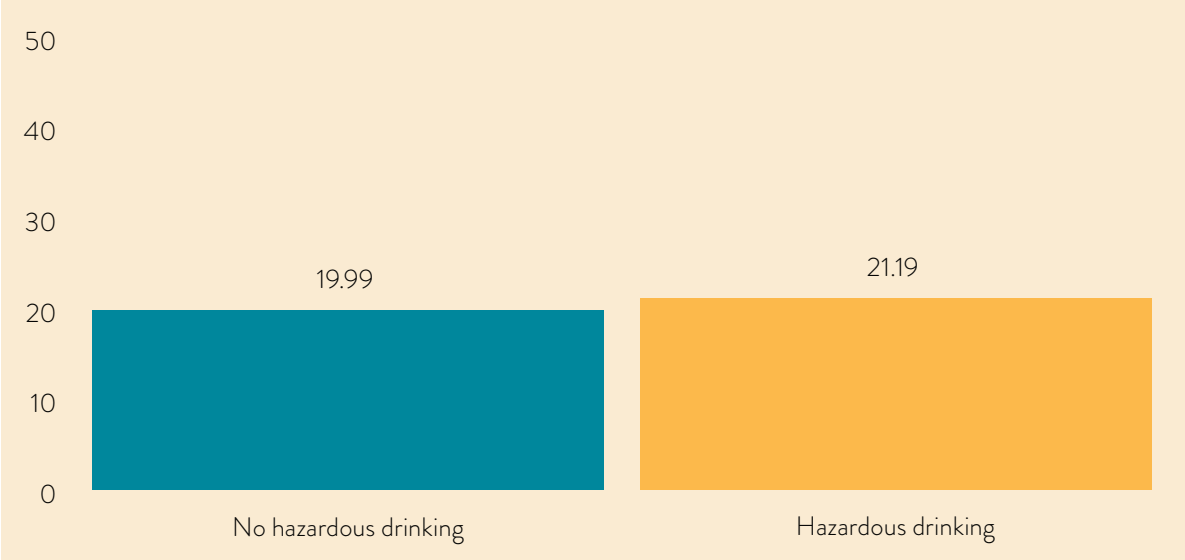
23 per cent of United Nations staff screened positive for hazardous drinking (n = 3,370). Hazardous drinking was significantly more frequent when:

- the age was 34 years or below
- the relationship status was not recognized by the United Nations
- the staff member had no dependent child or children
- the staff member was working in a family duty station
- the staff member was working less than 3 years or longer than 10 years for the United Nations
- the type of appointment was consultancy
- the recruitment type was international
- the staff member was not at all satisfied or slightly to moderately satisfied with their job
- the staff member reported more workplace incivility and occupational conflicts
- the staff member was exposed to a traumatic event during the previous 12 months.

The most important predictors of United Nations staff screening positive for hazardous drinking were relationship status, parenthood status, type of appointment, job satisfaction and trauma exposure while on duty.

Figure 38

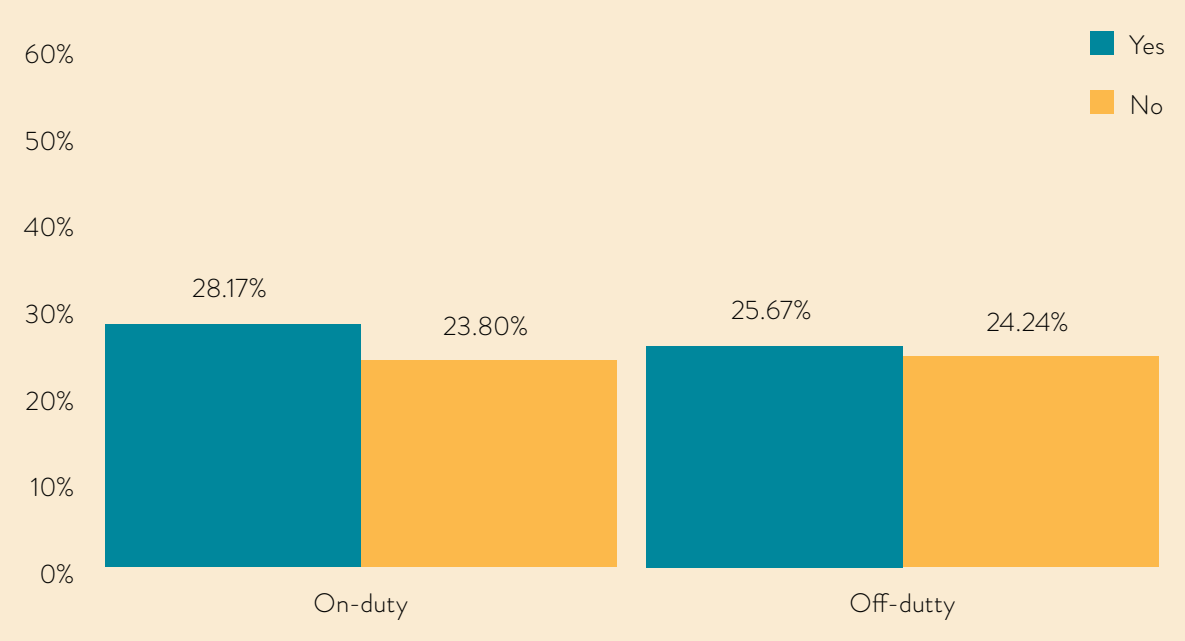
WORKPLACE INCIVILITY, BY HAZARDOUS DRINKING



Note: Average score on the Workplace Incivility Scale for United Nations staff screening positive for hazardous drinking compared with staff screening negative for hazardous drinking.

Figure 39

PERCENTAGE OF UNITED NATIONS STAFF SCREENING POSITIVE FOR HAZARDOUS DRINKING, BY TRAUMA EXPOSURE



Note: The percentage of United Nations staff with hazardous drinking reporting trauma exposure during the previous 12 months in proportion to all survey respondents who screened positive for hazardous drinking and who completed the screening instrument for on-duty trauma exposure or off-duty trauma exposure.

COMBINATION OF MENTAL HEALTH ISSUES: SCREENING POSITIVE FOR GAD, PTSD AND MDD TOGETHER

Predictors for the combination of mental health issues

A multivariable logistic regression analysis was calculated to identify which of the sociodemographic and occupational variables of United Nations staff were the strongest predictors of screening positive for GAD, PTSD and MDD together (see table 8, appendix D, for exact parameter estimates). When statistically controlling for the influence of all sociodemographic and occupational variables together, the risk of the combination of these mental health issues was predicted as follows:

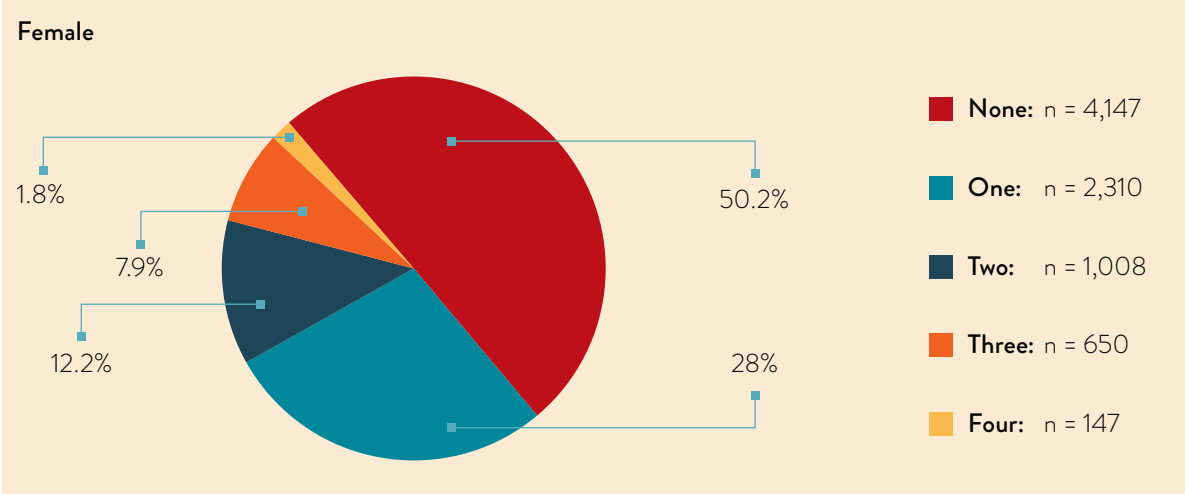
- Staff of 50 years and above had a 1.8 times lower risk compared with staff younger than 35 years of age
- Male staff had a 1.2 times lower risk compared with female staff
- Staff in a relationship recognized by the United Nations had a 1.2 times lower risk than staff not in a relationship
- Staff who were not parents of a dependent child or children had a 1.2 times lower risk compared with parents
- Staff with 5 to 10 years of work experience in the United Nations system had a 2.3 times higher risk, and those with more than 10 years of experience had a 2.8 times higher risk, compared with the newest recruits
- Staff who were the most satisfied with their job had a 10.5 times lower risk of endorsing symptoms consistent with GAD, PTSD and MDD together, and those who were only slightly satisfied had a 1.5 times lower risk, than those who were not at all satisfied with their job
- Trauma exposure increased the risk. Staff who reported not having been exposed to trauma during the previous 12 months had about a 2 times lower risk of screening positive for GAD, PTSD and MDD together.

GENDER AND MENTAL HEALTH

The endorsement of mental health symptoms by female and male staff members was compared using chi-square tests. The results showed that men and women differed significantly in screening positive for mental health issues ($\chi 2$ (4) = 60.33, p <.001). Female staff members were more likely than male staff members to screen positive for at least one mental health issue ($\chi 2$ (1) = 52.40, p <.001).

Figure 40

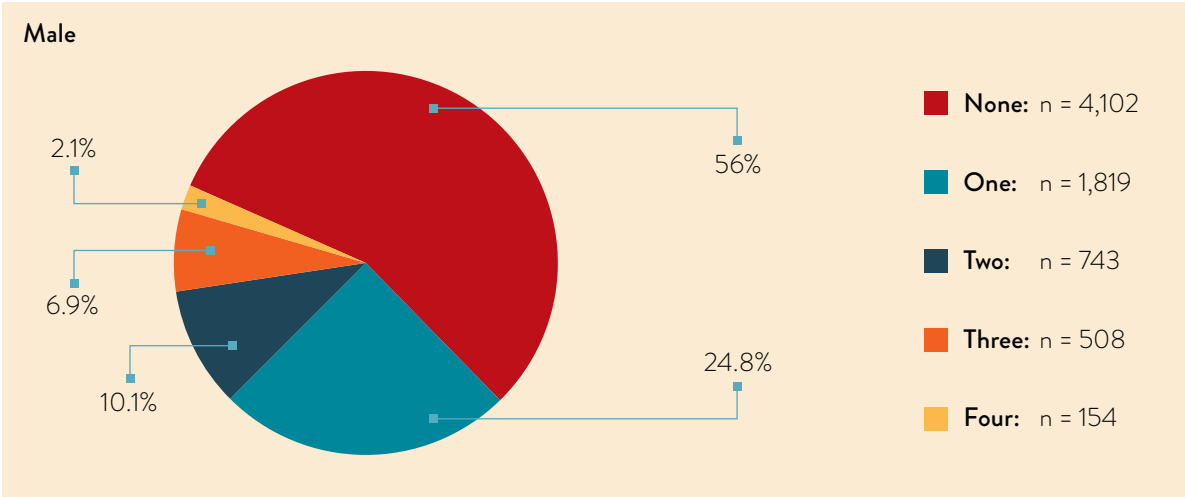
PERCENTAGES OF FEMALE UNITED NATIONS STAFF SCREENING POSITIVE FOR MULTIPLE MENTAL HEALTH ISSUES



Note: The percentages refer to the number of respondents who reported symptoms consistent with zero, one, two, three or four mental health issues (GAD, MDD, PTSD, hazardous drinking) in proportion to the number of female United Nations staff who fully completed both the gender status and the screening measures.

Figure 41

PERCENTAGES OF MALE UNITED NATIONS STAFF SCREENING POSITIVE FOR MULTIPLE MENTAL HEALTH ISSUES



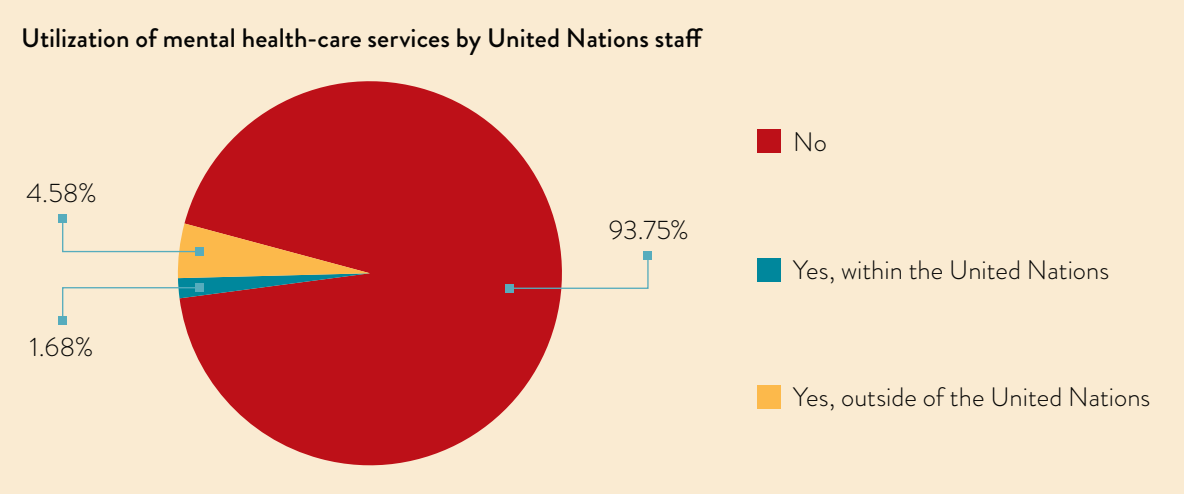
Note: The percentages refer to the number of respondents who reported symptoms consistent with zero, one, two, three or four mental health issues (GAD, MDD, PTSD, hazardous drinking) in proportion to the number of male United Nations staff who fully completed both the gender status and the screening measures.

UTILIZATION OF MENTAL HEALTH-CARE SERVICES

While the survey revealed high levels of mental health issues, only a small percentage of staff reported having recently received mental health-care services (figure 42).

Figure 42

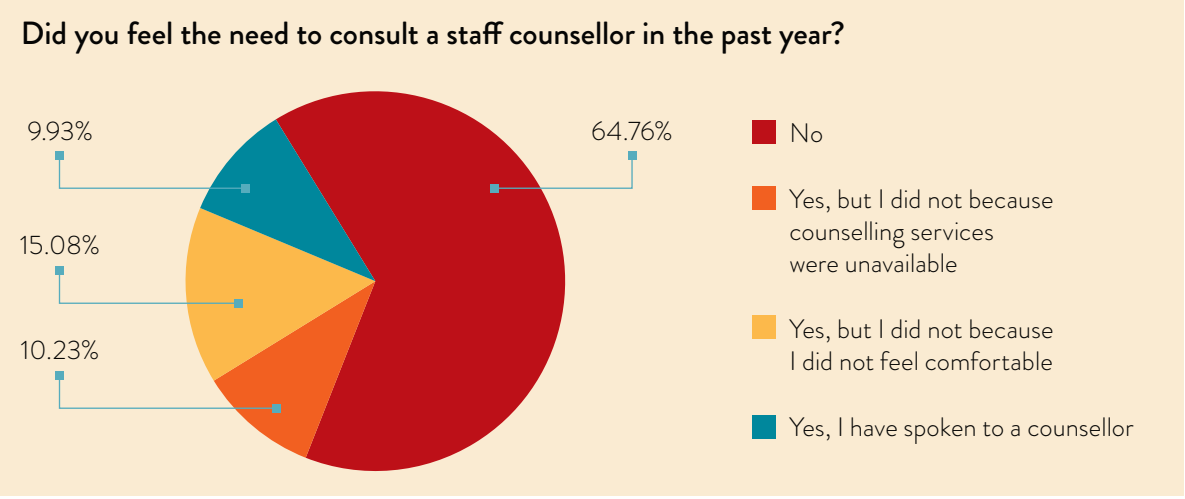
PERCENTAGE OF SURVEY RESPONDENTS CURRENTLY RECEIVING MENTAL HEALTH-CARE SERVICES



Note: Few of the respondents who answered the survey questions on the utilization of mental health-care services (n =11,752) reported utilizing such services either within the United Nations (n = 197) or outside the United Nations (n = 538).

Figure 43

PERCENTAGE OF UNITED NATIONS STAFF WITH NEED FOR STAFF COUNSELLING FOR PERSONAL OR WORK-RELATED ISSUES WITHIN THE PAST YEAR



Note: The percentage of United Nations staff with different needs for counselling in proportion to the total number of survey respondents answering the respective survey questions (n = 5,690).

Survey respondents were evenly split in terms of their interest or non-interest in having an on-site stress counsellor. About 15 per cent of staff responded that they had felt the need to consult a counsellor but had not followed through because they did not feel comfortable, while 10 per cent believed a staff counsellor was not available to them (figure 43).

DISCUSSION

There are five striking findings from the staff well-being survey, the largest and most comprehensive evaluation of the mental health of United Nations staff that has ever been undertaken. The findings are as follows:

1. *Approximately half of all respondents reported symptoms consistent with a mental health condition*: 49 per cent of all respondents reported symptoms consistent with at least one of the four mental health issues described above and 22 per cent screened positive for at least two.

2. The length of time that a person had worked in the United Nations system predicted whether or not that person reported symptoms consistent with a mental health diagnosis. The lowest levels of mental health problems, by far, were reported by the staff with the least amount of experience working for the United Nations, and that finding was statistically robust across GAD, MDD and PTSD when controlling for gender, age and other sociodemographic variables.

3. Exposure to potentially traumatic events (experienced or witnessed events that involved actual or threatened death or serious injury) within the past year, both on-duty and off-duty, were significant predictors of likely psychiatric diagnoses. This direct link between trauma and staff health indicates that the unique demands of United Nations work may be having a negative impact on the mental health of staff and, to a certain extent, explains the increase in the prevalence of reported symptoms with duration of employment because the longer a person works in the United Nations environment, the more likely they are to have been exposed to a traumatizing event.

4. A cluster of undesirable workplace outcomes correlate with mental health symptoms; the data showed that lower levels of job satisfaction strongly correlated with higher levels of reported mental health symptoms. Similarly, higher levels of perceived incivility and occupational conflict in the workplace were strongly associated with higher levels of reported symptoms.

5. A total of 94 per cent of staff are not currently receiving mental health-care services either externally or through United Nations staff/stress counselling. In addition, while 50 per cent of staff responded that they would like to have an on-site counsellor to speak with confidentially from time to time, only 2 per cent of staff reported that they had recently received services from a United Nations counsellor.

This extensive dataset is replete with other correlations, but the above "big five" are the key messages to be drawn from the data.

There are limitations to the study, which should be considered in the interpretation and application of the findings, but none of the limitations are sufficient to invalidate the findings. The limitations are as follows:

1. The survey participants were self-selected. An analysis comparing the sample of respondents to the population of United Nations personnel as a whole provides significant reassurance that the respondent group is broadly representative of the United Nations population, but it must be acknowledged that a reporting bias in the data cannot be excluded. However, self-selecting bias in this case is likely to work both ways and balance itself out; namely, while people with higher symptom levels might be more likely to participate because of their mental health burden, they could also be less likely to participate owing to a lack of drive and motivation. Also, social desirability could be an important factor limiting the endorsement of problems for reasons of stigma as well as potential concerns regarding the confidentiality of answers.

2. The survey was a self-report tool administered electronically, not a clinical diagnostic interview. While there is some evidence in the literature that electronic survey responses are just as accurate as interview responses (Griffin et al., 2004; Rush et al., 2006), the gold standard for diagnosis is clinical assessment. For that reason, the findings of the survey are expressed as "reported symptoms", rather than "diagnosis".

3. The survey calculated "point prevalence" data, namely, the percentage of individuals who at a single point in time reported symptoms consistent with a psychiatric diagnosis. Most epidemiological data (and the comparator data reported above) is 12-month prevalence. We have therefore been unable to benchmark against similar point-prevalence data. Twelve-month prevalence is the measure of how many people in a population in a 12-month period have a new or ongoing diagnosis: it would normally therefore be expected that 12-month prevalence data are higher than point-prevalence, because as a year goes by, more people will answer "yes" to a question on having had a symptom during the previous 12 months.

4. While statistical comparison of the demographics of the survey sample compared with the greater United Nations workforce showed that the sample was broadly representative of the staff population as a whole, few consultants responded to the survey (1 per cent of respondents). Because the total number of consultants employed by the United Nations system during the months that the survey was available to staff online was not available for comparison, the statistical representativeness of this category of employee could not be determined. Therefore, results regarding consultants, including comparisons of consultants with others, should be interpreted with caution.

5. The data collected are essentially a single snapshot in time and therefore do not allow the assessment of causal direction. For example, with workplace incivility, it cannot be deduced whether the incivility is a cause or an effect of mental health symptoms. Only longitudinal studies will truly answer questions of causation.

These limitations notwithstanding, the dataset is a powerful tool to inform the development of a mental health strategy to improve and sustain the mental health of United Nations personnel. Lessons to take forward include:

PREVENTION MUST BE A CORNERSTONE OF ANY FUTURE STRATEGY

While the cross-sectional study cannot demonstrate that individuals develop symptoms as the years go by, the very striking increase in the prevalence of symptoms when comparing new hires to "United Nations veterans" strongly suggests that factors exist in a United Nations career that increase the risk of developing mental health conditions. The United Nations has a large number of preventive programmes currently in place, but there is limited ability to ensure that they are reaching the right population, at the right time, in the right way.

Operational security is a critical element to prevent exposure to potentially traumatizing events, and managers must actively engage in risk/benefit evaluation before deciding to place staff in situations where exposure to traumatizing events is likely. The psychological risks of any workplace, whether exposure to potential trauma or other more general occupational health risks such as workplace culture, need to be evaluated as robustly as the risk of exposure to physical harm. Further evaluation of the operational necessity of exposure to potential trauma in particular, and its elimination when reasonably possible, is an essential element of the duty of care.

Where, despite our best efforts, exposure to potentially traumatizing events occurs, early intervention by mental health professionals could serve to foster resilience and mitigate the risk of health problems. Furthermore, the link between off-duty trauma exposure and psychological problems is a potent reminder that our staff do not exist in a work bubble: events outside the workplace can have a profound impact on their health and therefore their productivity.

THE UNITED NATIONS MUST MAKE ACCESS TO HIGH-QUALITY PSYCHOSOCIAL CARE UNIVERSAL FOR ITS STAFF

The dichotomy in support for on-site mental health counsellors clearly necessitates the provision of a variety of models for access to psychosocial services.

Access to care must be flexible to allow for the diversity of staff cultural expectations, locations and personal preference. It is not sufficient to have a single counsellor at a site or in an organization and regard the duty of care for mental health as fulfilled. Access to mental health care must take into account that some people will always prefer off-site, others on-site, and it is almost always preferable to receive mental health-care services from a person who speaks a language in which both patient and carer are fluent. Best practice would suggest a blended offering of on-site counsellors where possible, augmented by telecounselling and telepsychiatry.

The United Nations health insurance products are not standardized for mental health care, with some having stigmatizing clauses (such as requiring pre-approval for the most modest treatment course) or unrealistic limits on the amount of care covered by the plan. The status of telehealth services is unclear, with not all plans accepting telecounselling or telepsychiatry as a billable service. That must be changed, considering the geographic mobility of the United Nations workforce.

STIGMA REDUCTION WILL BE AN IMPORTANT PILLAR OF REFORM, TO ENABLE HELP-SEEKING AND RETURN TO WORK

One quarter of the respondents acknowledged a need to speak to a staff counsellor but reported that they never did, either because they did not feel comfortable or because they believed that such resources were not available. It is well understood that there remains a great deal of stigma globally for those seeking psychosocial support and clinical services; WHO and the World Psychiatric Association have both identified stigma as the primary challenge to mental health, and widespread concerns about mental health stigma in the workplace have been well-documented in other professions where people are routinely exposed to traumatic events (Hansson and Markström, 2014; Hoge et al., 2014; Pietrzak et al., 2015; Stuart et al, 2012). The data revealed by the present study serve to emphasize the consequences of such stigma for United Nations staff and underscore the urgent need for cultural and attitude change inside the Organization. A future United Nations mental health strategy will need to normalize help-seeking behaviour by reducing stigma, increasing access and educating United Nations personnel on the benefits of early intervention.

PRIORITIZE INTERVENTIONS BASED ON THE SURVEY DATA

The survey revealed correlational data that warrant further discussion and/or investigation. Several demographic and occupational variables were unexpectedly associated with reported mental health conditions or revealed notable links. For example, survey results suggest a potential window for primary prevention and resilience-building in the first three years of an individual's United Nations career.

Other salient mental health risk factors revealed by this research include being recruited locally (PTSD and depression), being a parent (PTSD), not being in a relationship recognized by the United Nations (PTSD, MDD, GAD), being aged 40 to 49 (PTSD and depression) and working in a family duty station (depression and hazardous drinking).

Each of these associations deserves further discussion. Some of the survey findings debunk popular wisdom, for example, the link between family duty station and depression and alcohol raises a set of complex questions. The dataset allows us to recognize the risks of each kind of United Nations service and prioritize interventions accordingly, thereby saving time, effort and resources.

UNDERSTAND THE GENDER FACTOR

When looking at the interaction of gender and mental health, apart from the elevated prevalence of problems found in United Nations staff overall, comparative results were generally in line with that of psychological research in the general population, with women significantly more likely than men to endorse symptoms of anxiety and depression (Astbury, 2001). That was true when analysing the likelihood that a staff member would screen positive for either GAD, MDD or PTSD and when considering the frequency of overall mental health issues by gender. Prior research on this topic suggests that such gender differences in reported symptoms may be explained by differences in how men and women tend to internalize and manifest negative emotions rather than differences in the frequency of mental health problems per se (Eaton et al., 2012). An alternative explanation, one emphasized by WHO and relevant to gender inequalities in United Nations staffing, points to socioeconomic factors such as discrimination, rank and status in explaining such gender differences in reported symptoms of anxiety and depression (Astbury, 2001). The most likely explanation for the gender differences found in the present study probably involves a combination of such psychological and social factors. It is important to note that, when controlling for all the other sociodemographic variables, gender was not found to be a significant predictor of mental health issues.

CARRY OUT FUTURE STUDIES

The survey was a single snapshot. The data therefore did not follow individuals over time. Thus, while the results allow us an evidence base to understand the likely evolution of psychological problems over time for United Nations personnel, much remains unknown. Further longitudinal research on the mental health of staff is therefore strongly recommended.

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APPENDIX A. SURVEY MEASURES

Generalized anxiety disorder measured with GAD-7

Generalized anxiety disorder (GAD) is an anxiety disorder characterized by symptoms of constant worrying or obsession, restlessness, fatigue, difficulty concentrating, irritability, trouble sleeping, and somatic complaints that are not attributed to another condition. GAD was assessed using the GAD-7 (Spitzer et al., 2006), a seven-item self-report measure that has shown strong psychometric properties for estimating the prevalence of GAD. Answers for all seven items were given on a three-point rating scale, where 0 = not at all and 3 = nearly every day. The total score ranges from 0 to 21 and can be categorized into four severity groups: minimal anxiety (0–4), mild anxiety (5–9), moderate anxiety (10–14) and serious anxiety (14–21). A cut-off score of ≥10 was used to determine a positive screen for GAD.

Post-traumatic stress disorder measured with PCL-6

Post-traumatic stress disorder (PTSD) is a mental health disorder that emerges in a minority of individuals following exposure to a potentially traumatic event. PTSD is characterized by symptoms of re-experiencing (nightmares, memories and flashbacks), avoidance, emotional numbing and hyperarousal. The well-validated PCL-C (Lang et al., 2012) has been shown to be a reliable measure for screening PTSD. The PCL-6 is an abbreviated version of the PCL-C that consists of six items. Those with a score of 14 or greater are considered to have screened positive for PTSD.

Major depressive disorder measured with PHQ-9

Major depressive disorder is characterized by a pervasive and persistent low mood that is accompanied by low self-esteem and a loss of interest or pleasure in normally enjoyable activities. In the present survey, MDD was assessed with the PHQ-9, a well-validated instrument for screening for depression (Löwe, Kroenke and Gräfe, 2005). The PHQ-9 consists of nine

items related to the major symptoms of MDD. A cut-off score that identifies risk as ≥10 has the best trade-off between sensitivity and specificity for MDD.

Hazardous drinking measured with the AUDIT-C

Hazardous drinking was defined by the three-item version of the Alcohol Use Disorders Identification Test (AUDIT-C), with a minimum score of 0 and maximum score of 3 (Bush et al., 1998). The AUDIT-C was developed by the World Health Organization to assess problems relating to alcohol consumption and drinking behaviours. Questions pertained to frequency of use, amount typically consumed and how often six or more drinks were consumed.

Workplace incivility and occupational conflict measured with the Workplace Incivility Scale

Workplace incivility was assessed with the Workplace Incivility Scale (Cortina et al., 2001). Survey respondents were asked for their rating on a seven-point scale ranging from "never" (0) to "daily" (6) on their encounters with different forms of incivility in the workplace (for example, "Paid little attention to your statement or showed little interest in your opinion"; "Addressed you in unprofessional terms either publicly or privately"). The scale was adapted to ask participants to self-rate their own behaviour as well as that of others. Each response was summed in order to create a total workplace incivility score.

APPENDIX B. SAMPLE CHARACTERISTICS

Table 2

SAMPLE CHARACTERISTICS OF THE STUDY COHORT COMPARED WITH THE GLOBAL STAFF POPULATION

		SAMPLE CHARACTERISTICS	GLOBAL STAFF POPULATION	
		Count (percentage)	Count (percentage)	SIGNIFICANCE
Gender	Female	9 106 (53%)	42 123 (43%)	$\chi^2(1) = 2.003$, $p = .16$
	Male	8 103 (47%)	56 032 (57%)	
	Missing data	**154**		
	Total	**17 209**	**98 155**	
Age bracket	34 and below	3 540 (20%)	12 637 (13%)	$\chi^2(5) = 3.02$, $p = .70$
	35–39	3 376 (20%)	16 881 (17%)	
	40–44	3 186 (18%)	18 756 (19%)	
	45–49	2 672 (15%)	17 601 (18%)	
	50–54	2 418 (14%)	16 012 (16%)	
	55–above	2 093 (12%)	16 268 (17%)	
	Missing data	**78**		
	Total	**17 285**	**98 155**	
Relationship status	Not in a relationship	3 851 (22%)	N/A	
	In a partnership recognized by the United Nations	11 177 (66%)	N/A	
	In a partnership not recognized by the United Nations	2 043 (12%)	N/A	
	Missing data	**292**		
	Total	**17 071**	**98 155**	
	Yes	10 809 (63%)	43 323 (44%)	$\chi^2(1) = 7.256$, $p = .01$
	No	6 438 (37%)	54 832 (56%)	
	Missing data	**116**		
	Total	**17 247**	**98 155**	

		SAMPLE CHARACTERISTICS	GLOBAL STAFF POPULATION	
		Count (percentage)	Count (percentage)	SIGNIFICANCE
Contract	Permanent/continuous	3 502 (24%)	26 567 (27%)	$\chi^2(2) = 5.012$, $p = .08$
	Fixed-term	9 219 (64%)	68 879 (70%)	
	Temporary	1 584 (11%)	2 709 (3%)	
	Consultancy	152 (1%)	N/A	
	Missing data	**2 906**		
	Total	**14 457**	**98 155**	
Type of duty station	Family duty station	9 300 (79%)	N/A	
	Non-family duty station	2 407 (21%)	N/A	
	Missing data	**715**		
	Total	**11 707**	**98 155**	
Length of employment within United Nations system	Less than 1 year	2 387 (15%)	N/A	
	1–3 years	2 821 (18%)	N/A	
	3–5 years	2 189 (14%)	N/A	
	5–10 years	4 038 (25%)	N/A	
	More than 10 years	4 594 (28%)	N/A	
	Missing data	**1 334**		
	Total	**16 029**	**98 155**	

APPENDIX C. PREVALENCE OF MENTAL HEALTH ISSUES

Table 3

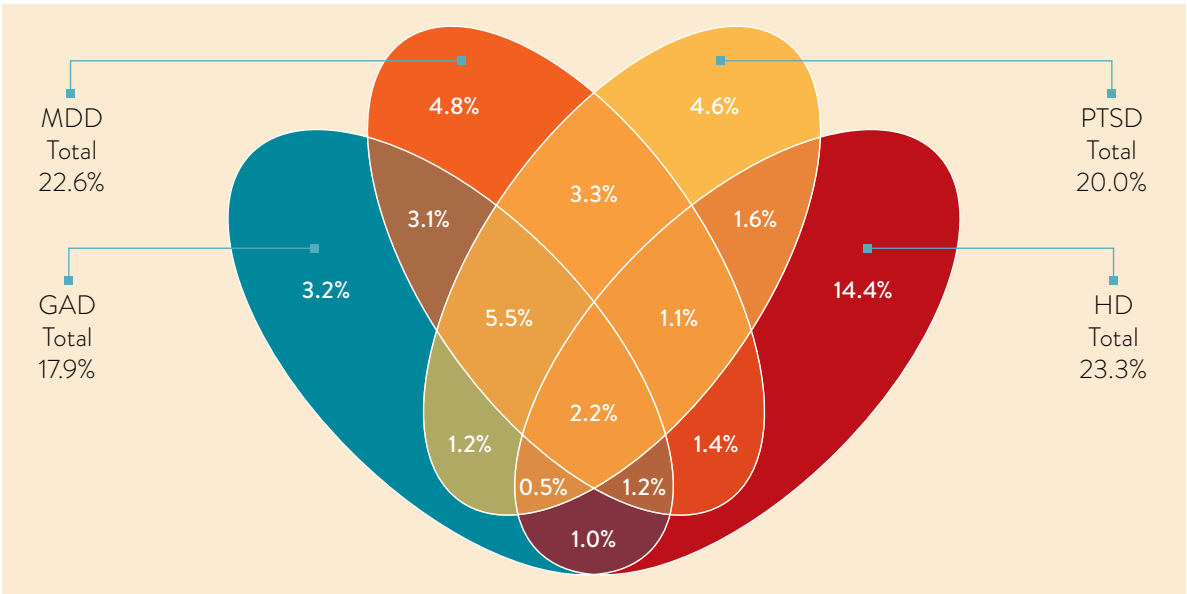
FREQUENCY OF MENTAL HEALTH ISSUES, BY UNITED NATIONS ENTITY (DE-IDENTIFIED)

POINT ENTITY	GAD	MDD	PTSD	HAZARDOUS DRINKING
1	20%	20%	21%	20%
2	16%	14%	15%	22%
3	17%	15%	18%	29%
4	21%	42%	29%	20%
5	17%	14%	16%	29%
6	10%	13%	18%	21%
7	18%	19%	21%	35%
8	24%	21%	20%	16%
9	18%	14%	7%	25%
10	14%	14%	14%	23%
11	24%	28%	18%	22%

Combined prevalence rates for each issue can be seen in the diagram below (these comorbidity analyses included only data from those survey respondents who completed all four of the mental health scales). Percentage values in areas of overlap refer to the number of survey respondents who screened positive for the indicated conditions (for example, 5.5 per cent of respondents screened positive for GAD, MDD and PTSD).

Figure 44

VENN DIAGRAM: STAFF REPORTING MENTAL HEALTH CONDITIONS: PARCELING OUT THE PERCENTAGE OF ONE, TWO, THREE, FOUR OR ZERO COMORBIDITIES



APPENDIX D. MULTIVARIABLE LOGISTIC REGRESSION TABLES

Table 4

PREDICTORS FOR GAD

(Parameter estimates of multivariable logistic regression analysis)

VARIABLE	β	SE	P	OR	95% CI	
Intercept	-1.0401	0.1665	<.0001			
Age: 35–39 vs. ≤ 34	0.132	0.069	0.0558	0.819	0.659	1.017
Age: 40–44 vs. ≤ 34	-0.0661	0.0691	0.3386	0.672	0.535	0.844
Age: 45–49 vs. ≤ 34	-0.0306	0.0745	0.6817	0.696	0.546	0.888
Age: 50–54 vs. ≤ 34	-0.2512	0.0809	0.0019	0.558	0.432	0.722
Age: 55 and above vs. ≤ 34	-0.116	0.0844	0.1694	0.639	0.491	0.831
Gender: male vs. female	-0.0623	0.0345	0.0711	0.883	0.771	1.011
Relationship status: in a partnership not recognized by your organization vs. not in a relationship	0.0246	0.0686	0.7194	1.001	0.797	1.258
In a partnership recognized by your organization vs. not in a relationship	-0.0479	0.0531	0.3675	0.931	0.783	1.108
Dependent children	-0.0322	0.0392	0.4115	0.938	0.804	1.093
Years worked at United Nations: 1–3 years vs. ≤ 1 year	-0.0339	0.0905	0.7082	1.941	1.386	2.719
Years worked at United Nations: 3–5 years vs. ≤ 1 year	-0.0136	0.0876	0.8762	1.981	1.411	2.783
Years worked at United Nations: 5–10 years vs. ≤ 1 year	0.282	0.0633	<.0001	2.663	1.958	3.621
Years worked at United Nations: more than 10 years vs. ≤ 1 year	0.4629	0.0738	<.0001	3.191	2.307	4.413
Consultancy vs. permanent	0.7481	0.4633	0.1063	2.914	0.863	9.842
Fixed-term vs. permanent	-0.151	0.1612	0.3489	1.186	0.997	1.411
Temporary vs. permanent	-0.2757	0.1779	0.1211	1.047	0.79	1.388
International vs. local	0.0105	0.0324	0.7453	1.021	0.9	1.159
Extremely satisfied vs. not at all satisfied	-0.9334	0.1417	<.0001	0.1	0.067	0.151
Very satisfied vs. not at all satisfied	-1.0183	0.0699	<.0001	0.092	0.071	0.12
Moderately satisfied vs. not at all satisfied	-0.1092	0.0597	0.0671	0.228	0.178	0.292
Slightly satisfied vs. not at all satisfied	0.6936	0.0774	<.0001	0.51	0.387	0.672

VARIABLE	β	SE	P	OR	95% CI	
No trauma exposure vs. trauma exposure at work	-0.242	0.0437	<.0001	0.616	0.519	0.732
No trauma exposure vs. trauma exposure at home	-0.2618	0.0417	<.0001	0.592	0.503	0.698

Table 5

PREDICTORS FOR PTSD

(Parameter estimates of multivariable logistic regression analysis)

VARIABLE	β	SE	P	OR	95% CI	
Intercept	-1.0318	0.212	<.0001			
Age: 35–39 vs. ≤ 34	0.0581	0.0774	0.4534	0.826	0.646	1.057
Age: 40–44 vs. ≤ 34	0.1419	0.0726	0.0508	0.898	0.7	1.153
Age: 45–49 vs. ≤ 34	0.0586	0.0792	0.4593	0.827	0.633	1.08
Age: 50–54 vs. ≤ 34	-0.1018	0.0838	0.2243	0.704	0.534	0.929
Age: 55 and above vs. ≤ 34	-0.4057	0.0961	<.0001	0.52	0.385	0.701
Gender: male vs. female	-0.072	0.0377	0.0563	0.866	0.747	1.004
Relationship status: in a partnership not recognized by your organization vs. not in a relationship	0.0139	0.0754	0.8534	0.887	0.692	1.138
In a partnership recognized by your organization vs. not in a relationship	-0.1475	0.0583	0.0114	0.755	0.625	0.911
Dependent children	-0.1004	0.0434	0.0207	0.818	0.69	0.97
Years worked at United Nations: 1–3 years vs. ≤ 1 year	-0.197	0.1023	0.0541	1.327	0.924	1.905
Years worked at United Nations: 3–5 years vs. ≤ 1 year	0.0625	0.0946	0.5089	1.72	1.202	2.46
Years worked at United Nations: 5–10 years vs. ≤ 1 year	0.1952	0.0695	0.005	1.964	1.421	2.715
Years worked at United Nations: more than 10 years vs. ≤ 1 year	0.4191	0.0796	<.0001	2.457	1.747	3.455
Consultancy vs. permanent	-0.0208	0.6041	0.9725	0.924	0.19	4.502
Fixed-term vs. permanent	-0.0469	0.2076	0.8213	0.9	0.748	1.084
Temporary vs. permanent	0.00968	0.2231	0.9654	0.953	0.703	1.291
International vs. local	-0.056	0.0352	0.112	0.894	0.779	1.026
Extremely satisfied vs. not at all satisfied	-0.9068	0.1567	<.0001	0.17	0.108	0.269
Very satisfied vs. not at all satisfied	-0.5924	0.0728	<.0001	0.233	0.173	0.313
Moderately satisfied vs. not at all satisfied	0.0286	0.0666	0.6677	0.434	0.326	0.577

VARIABLE	β	SE	P	OR	95% CI	
Slightly satisfied vs. not at all satisfied	0.6063	0.0895	<.0001	0.772	0.56	1.066
No trauma exposure vs. trauma exposure at work	-0.5719	0.0424	<.0001	0.319	0.27	0.376
No trauma exposure vs. trauma exposure at home	-0.7194	0.0397	<.0001	0.237	0.203	0.277

Table 6

PREDICTORS FOR MDD

(Parameter estimates of multivariable logistic regression analysis)

VARIABLE	β	SE	P	OR	95% CI	
Intercept	-1.0594	0.1675	<.0001			
Age: 35–39 vs. ≤ 34	0.0314	0.073	0.6674	0.758	0.604	0.951
Age: 40–44 vs. ≤ 34	0.0548	0.07	0.4336	0.776	0.614	0.98
Age: 45–49 vs. ≤ 34	0.0516	0.0759	0.4962	0.773	0.603	0.993
Age: 50–54 vs. ≤ 34	-0.2135	0.0829	0.01	0.593	0.455	0.773
Age: 55 and above vs. ≤ 34	-0.233	0.0893	0.0091	0.582	0.442	0.767
Gender: male vs. female	-0.0376	0.0356	0.2918	0.928	0.807	1.067
Relationship status: in a partnership not recognized by your organization vs. not in a relationship	-0.0177	0.0709	0.8023	0.868	0.687	1.096
In a partnership recognized by your organization vs. not in a relationship	-0.1061	0.0549	0.053	0.795	0.666	0.948
Dependent children	-0.0223	0.0405	0.5823	0.956	0.816	1.121
Years worked at United Nations: 1–3 years vs. ≤ 1 year	-0.2777	0.0982	0.0047	1.149	0.821	1.606
Years worked at United Nations: 3–5 years vs. ≤ 1 year	0.0447	0.0887	0.6146	1.586	1.143	2.199
Years worked at United Nations: 5–10 years vs. ≤ 1 year	0.2117	0.0652	0.0012	1.874	1.396	2.515
Years worked at United Nations: more than 10 years vs. ≤ 1 year	0.4377	0.0755	<.0001	2.349	1.719	3.21
Consultancy vs. permanent	0.7777	0.4651	0.0945	2.955	0.87	10.032
Fixed-term vs. permanent	-0.2158	0.1621	0.1831	1.094	0.916	1.307
Temporary vs. permanent	-0.256	0.1788	0.1522	1.051	0.79	1.399
International vs. local	0.0321	0.0334	0.3367	1.066	0.935	1.216
Extremely satisfied vs. not at all satisfied	-0.9508	0.1485	<.0001	0.098	0.064	0.149
Very satisfied vs. not at all satisfied	-1.0631	0.0735	<.0001	0.087	0.067	0.114

VARIABLE	β	SE	P	OR	95% CI	
Moderately satisfied vs. not at all satisfied	-0.0992	0.0616	0.107	0.229	0.179	0.293
Slightly satisfied vs. not at all satisfied	0.7388	0.0787	<.0001	0.53	0.402	0.698
No trauma exposure vs. trauma exposure at work	-0.2704	0.0448	<.0001	0.582	0.488	0.694
No trauma exposure vs. trauma exposure at home	-0.2442	0.043	<.0001	0.614	0.519	0.726

Table 7

PREDICTORS FOR HAZARDOUS DRINKING

(Parameter estimates of multivariable logistic regression analysis)

VARIABLE	β	SE	P	OR	95% CI	
Intercept	-0.8037	0.1545	<.0001			
Age: 35–39 vs. ≤ 34	0.0226	0.0592	0.7021	0.987	0.82	1.187
Age: 40–44 vs. ≤ 34	0.0346	0.058	0.5507	0.998	0.824	1.209
Age: 45–49 vs. ≤ 34	-0.053	0.064	0.4076	0.915	0.744	1.125
Age: 50–54 vs. ≤ 34	-0.0193	0.065	0.7665	0.946	0.767	1.168
Age: 55 and above vs. ≤ 34	-0.0211	0.0688	0.7585	0.944	0.76	1.173
Gender: male vs. female	0.0463	0.0288	0.1073	1.097	0.98	1.228
Relationship status: in a partnership not recognized by your organization vs. not in a relationship	0.3406	0.0545	0.8534	1.728	1.438	2.076
In a partnership recognized by your organization vs. not in a relationship	-0.1343	0.0436	<.0001	1.075	0.929	1.244
Dependent children	0.2582	0.032	0.0021	1.676	1.478	1.9
Years worked at United Nations: 1–3 years vs. ≤ 1 year	0.1035	0.071	<.0001	1.283	1.012	1.626
Years worked at United Nations: 3–5 years vs. ≤ 1 year	0.0595	0.0704	0.1448	1.228	0.963	1.565
Years worked at United Nations: 5–10 years vs. ≤ 1 year	-0.0232	0.0523	0.3975	1.13	0.911	1.402
Years worked at United Nations: more than 10 years vs. ≤ 1 year	0.00576	0.0607	0.6579	1.163	0.923	1.466
Consultancy vs. permanent	0.3312	0.4366	0.9245	1.294	0.411	4.072
Fixed-term vs. permanent	-0.0511	0.1505	0.4481	0.883	0.764	1.021
Temporary vs. permanent	-0.3534	0.1628	0.7344	0.653	0.516	0.826
International vs. local	0.0289	0.0271	0.03	1.059	0.953	1.178
Extremely satisfied vs. not at all satisfied	-0.2172	0.1023	0.2857	0.705	0.5	0.993

VARIABLE	β	SE	P	OR	95% CI	
Very satisfied vs. not at all satisfied	-0.0113	0.0522	0.0338	0.866	0.667	1.124
Moderately satisfied vs. not at all satisfied	0.1457	0.0756	0.8286	1.013	0.755	1.361
Slightly satisfied vs. not at all satisfied	-0.0497	0.0528	0.0539	0.833	0.642	1.083
No trauma exposure vs. trauma exposure at work	-0.1167	0.0396	0.3469	0.792	0.678	0.925
No trauma exposure vs. trauma exposure at home	0.0251	0.0386	0.0032	1.052	0.904	1.223

Table 8

PREDICTORS FOR ANY MENTAL HEALTH ISSUE

(Parameter estimates of multivariable logistic regression analysis)

VARIABLE	β	SE	P	OR	95% CI	
Intercept	-0.2614	0.1622	0.107			
Age: 35–39 vs. ≤ 34	0.1115	0.0611	0.068	0.79	0.652	0.957
Age: 40–44 vs. ≤ 34	0.000939	0.0594	0.9874	0.707	0.58	0.862
Age: 45–49 vs. ≤ 34	0.0247	0.0643	0.7007	0.724	0.586	0.895
Age: 50–54 vs. ≤ 34	-0.1998	0.0686	0.0036	0.578	0.463	0.722
Age: 55 and above vs. ≤ 34	-0.2851	0.0746	0.0001	0.531	0.421	0.67
Gender: male vs. female	-0.1071	0.03	0.0004	0.807	0.718	0.908
Relationship status: in a partnership not recognized by your organization vs. not in a relationship	0.0389	0.0605	0.5202	0.953	0.78	1.164
In a partnership recognized by your organization vs. not in a relationship	-0.1259	0.0464	0.0067	0.808	0.695	0.94
Dependent children	-0.0873	0.0343	0.011	0.84	0.734	0.961
Years worked at United Nations: 1–3 years vs. ≤ 1 year	-0.1389	0.0777	0.074	1.558	1.19	2.039
Years worked at United Nations: 3–5 years vs. ≤ 1 year	0.0177	0.0743	0.8114	1.822	1.39	2.387
Years worked at United Nations: 5–10 years vs. ≤ 1 year	0.2516	0.0545	<.0001	2.301	1.806	2.933
Years worked at United Nations: more than 10 years vs. ≤ 1 year	0.4516	0.0635	<.0001	2.811	2.171	3.639
Consultancy vs. permanent	0.0942	0.4579	0.837	1.185	0.356	3.94
Fixed-term vs. permanent	-0.00982	0.1578	0.9504	1.068	0.919	1.241
Temporary vs. permanent	-0.00902	0.1701	0.9577	1.069	0.84	1.36
International vs. local	-0.0261	0.0281	0.3531	0.949	0.85	1.06

VARIABLE	β	SE	P	OR	95% CI	
Extremely satisfied vs. not at all satisfied	-1.1367	0.1224	<.0001	0.095	0.065	0.139
Very satisfied vs. not at all satisfied	-0.8857	0.0588	<.0001	0.122	0.094	0.159
Moderately satisfied vs. not at all satisfied	0.022	0.0539	0.6829	0.303	0.235	0.392
Slightly satisfied vs. not at all satisfied	0.785	0.0751	<.0001	0.65	0.487	0.868
No trauma exposure vs. trauma exposure at work	-0.356	0.0389	<.0001	0.491	0.421	0.572
No trauma exposure vs. trauma exposure at home	-0.5159	0.0366	<.0001	0.356	0.309	0.411

APPENDIX E. ASSOCIATIONS BETWEEN MENTAL HEALTH OUTCOMES AND OTHER VARIABLES

Table 9

ASSOCIATIONS BETWEEN MENTAL HEALTH OUTCOMES AND OTHER VARIABLES USING PEARSON'S CHI-SQUARE TEST FOR INDEPENDENCE

		GAD	PTSD	MDD	HD
Gender	Female	18.82%[2]	20.96%[3]	24.44%[3]	*No significant associations*
	Male	16.84%[2]	18.70%[3]	20.94%[3]	
Age (years)	< 34		18.00%[3]	23.00%[3]	26.85%[3]
	35–39		19.56%[3]	22.65%[3]	23.05%[3]
	40–44	*No significant associations*	21.81%[3]	25.05%[3]	21.86%[3]
	45–49		22.86%[3]	23.40%[3]	22.03%[3]
	50–54		19.80%[3]	22.33%[3]	21.79%[3]
	≥ 55		16.80%[3]	19.19%[3]	22.58%[3]
Relationship status	None	19.06%[1]	21.40%[1]	24.92%[3]	25.17%[3]
	Not recognized by the United Nations	19.24%[1]	20.56%[1]	24.70%[3]	34.67%[3]
	Recognized by the United Nations	17.31%[1]	19.35%[1]	21.95%[3]	20.63%[3]
Parenthood	Dependent child	*No significant associations*	20.51%[1]	*No significant associations*	19.21%[3]
	No dependent child		18.74%[1]		30.13%[3]
Type of appointment	Permanent	18.68%[3]	22.13%[3]	23.59%[3]	23.87%[2]
	Fixed-term	19.04%[3]	20.84%[3]	24.56%[3]	23.37%[2]
	Temporary	14.81%[3]	17.41%[3]	20.29%[3]	20.39%[2]
	Consultancy	15.22%[3]	12.90%[3]	31.62%[3]	32.80%[2]
Recruitment type	Local		21.60%[3]	25.31%[3]	20.18%[3]
	International	*No significant associations*	18.34%[3]	20.63%[3]	27.14%[3]
Duty station type	Family duty station	*No significant associations*	*No significant associations*	26.28%[2]	21.56%[1]
	Non-family duty station			23.31%[2]	19.48%[1]

		GAD	PTSD	MDD	HD
Employment duration	<1 year	11.29%[3]	13.95%[3]	17.04%[3]	24.02%[1]
	1–3 years	18.27%[3]	19.99%[3]	26.57%[3]	25.05%[1]
	3–4 years	19.71%[3]	21.13%[3]	27.12%[3]	23.25%[1]
	5–10 years	19.28%[3]	21.52%[3]	24.51%[3]	21.69%[1]
	>10 years	19.64%[3]	21.32%[3]	20.81%[3]	23.94%[1]
Job satisfaction	Not at all satisfied	52.79%[3]	40.51%[3]	56.26%[3]	29.30%[3]
	Slightly satisfied	34.50%[3]	32.77%[3]	41.12%[3]	26.46%[3]
	Moderately satisfied	20.28%[3]	23.14%[3]	26.29%[3]	23.86%[3]
	Very satisfied	9.84%[3]	13.47%[3]	14.06%[3]	21.86%[3]
	Extremely satisfied	8.89%[3]	10.00%[3]	9.66%[3]	18.94%[3]
Traumatic exposure	On-duty	28.78%[3]	40.96%[3]	26.56%[3]	28.17%[3]
	Off-duty	27.13%[3]	42.70%[3]	25.09%[3]	*No significant associations*
Workplace incivility[4]		0.428[3]	0.343[3]	0.375[3]	0.088[3]

1 Denotes p<.05
2 Denotes p<.01
3 Denotes p<.001
4 Pearson's correlation coefficient

Note: Pearson's chi-square test for independence provides an approximation of how likely it is that a difference between groups within a sample was observed by chance only. It provides a so-called "p-value", which constitutes the probability that there is no difference between the groups within the sample. A p-value of <.05 is considered "statistically significant" and is generally marked with one asterisk next to the statistical result. Two asterisks denote p<.01 and three denote p<.001.

APPENDIX F. LIST OF FIGURES

APPENDIX G. LIST OF TABLES

United Nations