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Article

Capturing the essential: Revising the mental health categories in UNHCR's Refugee Health Information System

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Abstract

The Refugee Health Information System (RHIS) for humanitarian settings was developed by the United Nations High Commissioner for Refugees (UNHCR) in 2004. As of 2009, it contained seven categories related to mental, neurological and substance use (MNS) conditions: epilepsy/seizure, alcohol/substance use disorder, mental retardation/intellectual disability, psychotic disorder, severe emotional disorder, medically unexplained somatic complaint and other psychological complaint. During a recent overhaul of the RHIS, the MNS categories were revisited. This article describes the revision process and provides insights into how and why changes were made. Two rounds of consultations involving 34 expert reviewers in humanitarian mental health led to nine case definitions for MNS conditions in the new integrated RHIS (iRHIS): epilepsy/seizure, alcohol/substance use disorder; intellectual disability/developmental disorder; psychotic disorder (including mania); delirium/dementia; depression or other emotional disorder; other emotional complaint; medically unexplained somatic complaint; and self-harm/suicide. The use of additional specifiers enables dedicated mental health professionals in humanitarian settings to document a more refined diagnosis with a total of 22 different categories that made the system compatible with the modules of the Mental Health Gap Action Programme, without additional complexity.

Key implications for practice

- The new iRHIS contains nine broad categories for MNS problems, reflecting consensus among humanitarian mental health practitioners.
- iRHIS allows health workers in refugee settings to more accurately classify patients with MNS problems.
- Specialized mental health workers in refugee settings can use additional specifiers in iRHIS to categorise their patients more precisely.

Keywords: classification, health information system, monitoring, primary healthcare, refugees

Introduction

Worldwide, health facilities in more than 135 refugee camps use the Refugee Health Information System (RHIS) for primary healthcare. Development of this system by the United Nations High Commissioner for Refugees (UNHCR) and its partners started in 2004 and was prompted by the need for standardised data collection and reporting tools in refugee camps that could inform evidence-based policy formulation, surveillance and better management of health programmes for refugees (Haskew, Spiegel, Tomczyk, Cornier, & Hering, 2010). Humanitarian health programmes are often initiated in challenging and remote environments in response to sudden cross-border movements of large populations. Refugees and other displaced populations are unique groups with specific health needs that are induced or exacerbated by the emergency situation (Ager et al., 2014; Spiegel, Checchi, Colombo, & Paik, 2010).

With regard to mental health issues, the situation is particularly complex. Compared to host populations, refugees have greater mental health needs, with higher levels of mental, neurological and substance use (MNS) disorders

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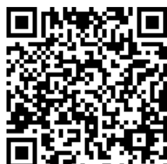

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Table 1: Mental, neurological, substance use disorders in the 2009 system

Epilepsy/seizures
Alcohol or other substance use disorder
Intellectual disability
Psychotic disorder (including mania)
Severe emotional disorder, including moderate-severe depression
Other psychological complaint
Medically unexplained somatic complaint

and elevated levels of non-pathological reactive emotional distress (Silove, Ventevogel, & Rees, 2017; van Ommeren, Saxena, & Saraceno, 2005). Specialized human resources for mental health in emergency settings are scarce, which reinforces the need to integrate mental health services within existing general healthcare settings (Ventevogel, van Ommeren, Schilperoord, & Saxena, 2015; Weissbecker, Hanna, El Shazly, Gao, & Ventevogel, 2019). It is important to properly document how many and which kind of MNS conditions are identified and treated in refugee health settings. For the advancement of mental health services outside specialized facilities, it is necessary to collect routine data on mental health service use and diagnosis in general health facilities, something that few low and middle-income countries (LMICs) currently do (Lora, Lesage, Pathare, & Levav, 2017; Ryan, De Silva, Terver, Ochi, & Eaton, 2015). Therefore, in 2009, seven categories for MNS conditions [see Table 1] were added to the RHIS (https://his.unhcr.org) after a consultative process with the World Health Organization and experts in humanitarian mental health from non-governmental organisations. These categories were specifically developed to capture essential data necessary to monitor mental health conditions in refugee camps and other humanitarian settings.

These categories were purposely broadly defined so they could be used by non-specialists working in general health settings. Over the years, the seven categories have been used in refugee camps (Kane, Ventevogel, Spiegel, Bass, van Ommeren, & Tol, 2014) and have become the standard for mental health reporting in humanitarian settings in general; they have also been included in various widely used toolkits and manuals (International Medical Corps, 2018; United Nations High Commissioner for Refugees, 2013; World Health Organization & United Nations High Commissioner for Refugees, 2012, 2015).

In 2017 and 2018, the RHIS system was revised as it had various limitations that hampered the analysis of routine data to improve programming. During the revision process, the UNHCR's Public Health Section decided to also evaluate whether the mental health categories needed to be adapted to enhance their utility, and make them more compatible with the Mental Health Gap Action Programme (mhGAP) of the World Health Organization (2008) that aims to reduce the treatment gap for MNS conditions. The main tool of the mhGAP is the intervention guide (World Health Organization, 2010, 2016) that is widely used for capacity building of general health workers in identification and management of MNS disorders (Humayun, Haq, Khan, Azad, Khan, & Weissbecker, 2017; Keynejad, Dua, Barbui, & Thornicroft, 2018). UNHCR promotes the use of the mhGAP Humanitarian Intervention Guide (HIG), which is a version that is adapted for emergency contexts (Ventevogel et al., 2015; World Health Organization & United Nations High Commissioner for Refugees, 2015). Over the years, UNHCR has supported capacity building using the mhGAP-HIG,[1] particularly in Africa, and has trained almost 1000 staff from its health partners in identifying and treating MNS disorders (Echeverri, Le Roy, Worku, & Ventevogel, 2018). However, the RHIS categories for MNS disorders were developed before the mhGAP intervention guide (IG) and HIG were published and hence did not correspond exactly with them, which some staff trained in mhGAP found confusing.

Although there was a clear need to adapt the RHIS categories to the mhGAP, UNHCR's public health section was at the same time cognizant of the need to maintain a high level of consistency with the earlier case definitions to ensure that future data could be meaningfully compared with retrospective data to explore long-term patterns in service utilization and regional trends.

This article describes the revision process of the MNS categories in the new 'integrated RHIS' (iRHIS).[2] It documents the main changes in the case definitions for MNS conditions and provides insights into why changes were made. As such, the article documents a critical advancement in refining the major mental health information system being used in humanitarian settings.

Materials and Methods

In 2015, UNHCR invited fifteen external experts in mental health in humanitarian settings to provide comments on the current seven mental health categories in the RHIS. These experts were chosen because of their familiarity with mental health programmes in refugee settings. The responses were anonymised (R1–R15) and ordered. Based on these responses, the Senior Mental Health Officer (PV) made a proposal for changes to the classification system. In February 2016, this proposal was then sent out to thirty-five reviewers (the fifteen experts from the first round plus twenty additional experts, representing the main partners for Mental Health and Psychosocial Support (MHPSS) of UNHCR and the agencies represented in the Inter-Agency Standing Committee (IASC) Reference Group for MHPSS in Emergencies. One reviewer did not respond due to time constraints. The final sample consisted of thirty-four expert reviewers. All these reviewers had experience in mental healthcare in humanitarian settings and came from diverse backgrounds (eighteen different nationalities, ten reviewers came from low and middle income countries (LMIC)) and represented a wide range of affiliations: United Nations organisations (4×), non-governmental organisations (12×), independent MHPSS consultants (10×), academics (6×) and other (2×).

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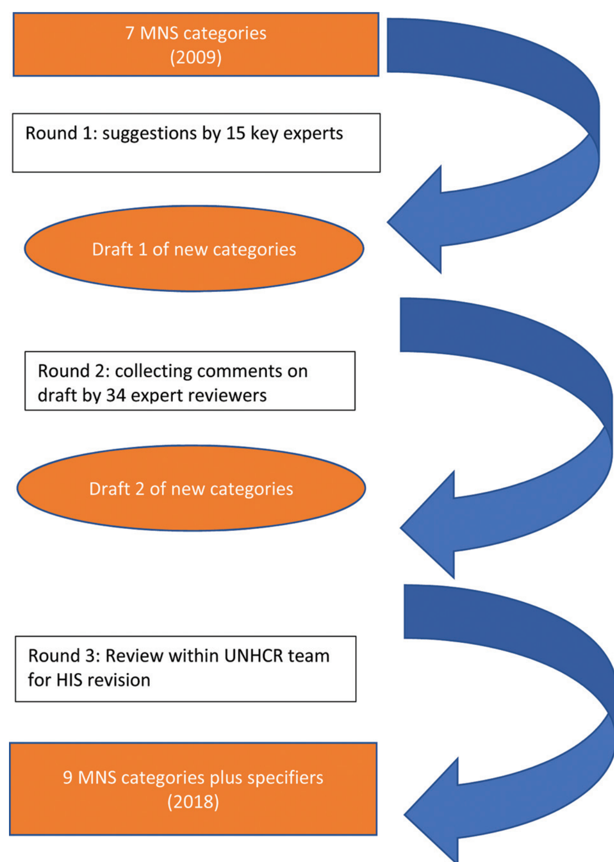

Figure 1: Flow chart of the revision process

The responses of the reviewers were anonymised and subsequently manually coded by two independent coders (GR and JK) who were blind to the identity of the respondents. Upon completion, the two coders compared their coding and resolved all disagreements without further need for resolution by a third coder. For each of the seven MNS categories covered in the proposal, responses were entered into a matrix divided into three columns: 'agree with proposed category and wording', 'agree with proposed category but revise wording' and 'revise proposed category and wording'. This allowed the UNHCR Senior Mental Health Officer to take into consideration the level of agreement among reviewers, as well as their specific recommendations on the revised proposal for each MNS category. The revised proposal was discussed with the health information specialists in the Public Health Section of UNHCR to ensure consistency with the overall revision process of the iRHIS. See Figure 1 for a flow chart of the revision process.

Description of major changes

The new iRHIS has several new features. First, data can be entered through either tablets, computers or android phones and is stored in the cloud. Second, it allows to select multiple categories for a single patient at a single consultation to register comorbidity. This is an important feature because despite the high level of co-occurrence of various MNS and physical disorders, routine health information systems (HIS) in LMIC are not able to capture comorbidity (Kane et al., 2018). Third, the new iRHIS makes it possible to differentiate between new cases and revisits. Fourth, UNHCR also revised the age categories to report diseases in line with the practice of many Ministries of Health in refugee hosting countries. Earlier, UNHCR used to segregate its data into under-five and over five categories, in addition to gender information. In the new revisions, additional age categories were added including under five, five to seventeen years, eighteen to fifty-nine and over sixty years. In addition to these changes, there were also changes related to the use of new technology. For example, new iRHIS allows data entry for individual cases with aggregation/reporting done electronically. To improve action by front-line clinicians using modern technologies, the new system can automatically generate alerts and has a simple interactive dashboard for information analytics to assist decision-making by local healthcare providers, who are frequently left out of the data management loop.

Also new in the iRHIS are case definitions for MNS with optional specifiers that can be used by specialists, such as dedicated mental health workers. For example, the category 'psychotic disorder (including mania)' can be used by general health workers, whereas dedicated mental health workers who need more sophisticated sub-categorisation can add specifiers for variants such as acute psychosis, chronic psychosis or manic psychosis. The option to add specifiers is open only to healthcare staff with a more specialized training in mental health, such as psychiatric nurses, psychiatric clinical officers or others who work in a dedicated mental health outpatient unit. This allows providers to make specific diagnoses that are commensurate with their own training, which will improve both data quality and patient care.

The new system includes a major technological change from the old technology that worked with paper-based tally sheets that were manually entered in a Microsoft Excel-based data file that was subsequently uploaded for compilation and analysis at central level. The new system is much more user-friendly: the health provider can directly enter data (online or offline) using tablets or personal computers with cloud-based data storage and analysis. Paper data collection will initially be retained as a back-up, with aggregate data entry possible into the application. By using modern technology, UNHCR and its partners envisage to improve data accuracy, timeliness, data analysis which will ultimately improve evidence-based decision-making in humanitarian emergencies.

Results of the review process for MNS categories

This section describes the new case definitions and presents the rationale for the changes that were made.

Epilepsy/seizure

In many LMICs, particularly in sub-Saharan Africa, care for people with epilepsy constitutes an important part of the work in the mental health sector (Birbeck, 2010). Epilepsy is one of the most often diagnosed MNS disorders in LMICs, and in African refugee settings often forms the single largest group of patients in MNS programmes (Kane

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Table 2: iRHIS 2018 case definition: epilepsy/seizures

Classification	Source	ICD-10
Probable case	WHO/UNHCR mhGAP HIG and expert group	G40–G47
Case definition		
A person with epilepsy has at least two episodes of seizures not provoked by any apparent cause such as fever, infection, injury or alcohol withdrawal. These episodes are characterized by loss of consciousness with shaking of the limbs and sometimes associated with physical injuries, bowel/bladder incontinence and tongue biting.		
NB: 'Psychogenic non-epileptic seizures (pseudo-seizures) can mimic epileptic seizures closely in terms of changes in consciousness and movements. These are classified under 'other psychological complaint'.		

Table 3: iRHIS 2018 case definition: alcohol or other substance use disorder

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG and expert group	F10–F19
Case definition		
A person with this disorder seeks to consume alcohol (or other addictive substances) on a daily basis and has difficulties controlling consumption. Personal relationships, work performance and physical health often deteriorate. The person continues consuming alcohol (or other addictive substances) despite these problems.		
Specifiers for dedicated mental health workers		
Alcohol-related disorders (F10)		
Substance use disorders related to opiate use (F11)		
Substance use disorders related to use of benzodiazepine or other prescription medication (F13)		
Other substance use disorders (F12, F14–F19)		
Exclusion criteria		
The category should not be applied to people who are heavy users of alcohol or other substances if they can control their consumption.		

et al., 2014; Mateen, Carone, Haskew, & Spiegel, 2012). The 'old' case definition in the RHIS 2009 for 'epilepsy/ seizures' was

'A person with epilepsy has at least two episodes of seizures not provoked by any apparent cause such as fever, infection, injury or alcohol withdrawal. These episodes are characterized by loss of consciousness with shaking of the limbs and sometimes associated with physical injuries, bowel/bladder incontinence and tongue biting'.

During revisions, four reviewers suggested a total of four revisions. One reviewer suggested differentiation between 'convulsive seizures' and 'epilepsy'. However, there is no clear algorithm for different forms of epilepsy in the mhGAP IG, HIG and the IG-2.0. We considered adding specifiers: one for the most commonly diagnosed form of epilepsy (generalized epilepsy with tonic–clonic seizures) and another for all other forms of epilepsy including localization-related (focal or partial) epilepsy and 'absences'. Ultimately, based on consultation with WHO's Department of Mental Health and Substance Abuse, the decision was made not to add specifiers for epilepsy because of the limited diagnostic and therapeutic utility of such distinctions for healthcare staff who are not specialized in neurology.

Two reviewers suggested adding more common symptoms such as presence of frothing. However, frothing is not considered a defining symptom of an epileptic seizure and was therefore not included. Two other reviewers suggested distinguishing clearly between epilepsy and conversion/dissociative disorder. Distinguishing between epilepsy and pseudo-seizure is very important in clinical practice, and thus, a sentence was added in the case-definition.

The new case definition is shown in Table 2.

Alcohol or other substance use disorder

The case definition in the RHIS 2009 for 'alcohol or other substance use disorder' was:

'A person with this disorder seeks to consume alcohol or other addictive substances and has difficulties controlling consumption. Personal relationships, work performance and physical health often deteriorate. The person continues consuming alcohol or other addictive substances despite these problems'.

In the revision rounds, five reviewers suggested five revisions. Two reviewers suggested the need to differentiate between alcohol and other substances. This suggestion was adopted by adding specifiers for different substances, which will allow for a more detailed description of people with substance use disorder and their treatment. The suggestion to include locally appropriate examples of commonly abused substances in the case definition was accepted by adding a specifier for 'other' that can be locally defined. However, a global health information system cannot include specific local terms. Relevant local terms for substances of abuse should be discussed during the training of health workers. Given the high level of benzodiazepine abuse and other prescription drugs, a specifier for this group was added.

This led to a new case definition for 'alcohol or other substance use disorder' [see Table 3].

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Table 4: iRHIS 2018 case definition: intellectual disability and developmental disorders

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG and expert group	F70–F79 F84
Case definition		
A person with intellectual disability has low intelligence, causing problems in daily living. As a child, this person is slow in learning to speak and reaches other developmental milestones (such as walking) later than other children. As an adult, the person may be able to work if tasks are simple. The person will have difficulties in living independently or in looking after oneself and/or children without support from others. When severe, the person may have difficulties speaking and understanding others and may require constant assistance.		
Specifiers for dedicated mental health workers		
Intellectual disability (F70–F79)		
Developmental disorder, such as autism spectrum disorder (F84), characterized by deficits in social interaction and social communication, and by restricted, repetitive, and inflexible patterns of behaviour and interests. The onset of the disorder is in childhood.		

Intellectual disability and developmental disorder

The case definition in the RHIS 2009 for 'intellectual disability' was:

'*The person has very low intelligence, causing problems in daily living. As a child, this person is slow in learning to speak. As an adult, the person can work if tasks are simple. Rarely will this person be able to live independently or look after oneself and/or children without support from others. When severe, the person may have difficulties speaking and understanding others and may require constant assistance*'.

This category prompted eighteen suggestions by a total of twenty-one reviewers. According to multiple reviewers, the term developmental disorders should be made clear in the title of the category. A strong argument is that developmental disorders such as autism are not necessarily accompanied by intellectual impairments. To allow for a better documentation of developmental disorders in emergency settings, specifiers were added for specialized health workers to differentiate between 'intellectual disability' and 'other developmental disorder including autism'.

The suggestion to add hyperactivity in this category was rejected because hyperactivity has a profoundly different symptomatology and aetiology than developmental disorder and can better be classified in 'psychological complaint'. The suggestion to add a separate category for 'childhood and adolescent disorders' was not adopted because developmental disorders and intellectual disability are not limited to children and adolescents. Moreover, children and adolescents with depression should be categorized in the appropriate categories and not grouped together as 'child and adolescent mental disorder'. Suggestions to use specialist terms such as 'pervasive developmental disorders' or 'autism spectrum disorders' were not followed, as the framework must be easy to use by non-specialists.

The revision process led to a new case definition for 'intellectual disability and developmental disorders' as shown in Table 4.

Psychotic disorder (including mania)

The case definition in the RHIS 2009 for 'psychotic disorder (including mania)' was:

'*The person may hear or see things that are not there or strongly believe things that are not true. They may talk to themselves, their speech may be confused or incoherent, and their appearance unusual. They may neglect themselves. Alternatively, they may go through periods of being extremely happy, irritable, energetic, talkative, and reckless. The person's behaviour is considered "crazy"/highly bizarre by other people from the same culture. This category includes acute psychosis, chronic psychosis, mania and delirium*'.

Eleven reviewers proposed a total of ten revisions in two revision rounds. One proposal was to limit this category to non-affective psychosis and put all bipolar disorders under severe emotional disorders. To keep consistency with the mhGAP HIG classification, this suggestion was not accepted. In clinical presentation, manic states and non-affective psychotic states are often difficult to distinguish for non-specialized health workers. For dedicated mental health workers, a specifier was added for 'bipolar disorder (mania)'. For dedicated mental health workers, it is also relevant to differentiate between various psychotic syndromes, and hence, specifiers were added for acute and chronic psychosis (with a duration of psychotic symptoms of three months as the cut-off point in accordance with mhGAP IG). See Table 5 for the final case definition of 'psychotic disorder (including bipolar disorder)'.

In the revision rounds, there was discussion as to whether 'delirium' should be classified under 'psychotic disorder', which was the case in the RHIS 2009. Several reviewers suggested combining 'delirium' with 'dementia' in a separate category. This suggestion was accepted [see Table 6].

Dementia or delirium

This category did not exist in the 2009 version of RHIS. Given the increased global relevance of dementia, particularly in middle-income countries, and its inclusion in mhGAP, it is logical to add this category. There would be two ways to do this: (1) to add a separate category, or (2) to add it to the definition of 'psychotic disorder including mania', which would then have to be renamed as 'severe mental disorders including psychosis, mania and dementia'. As the treatment of psychotic disorders is

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Table 5: iRHIS 2018 case definition: psychotic disorder (including bipolar disorder)

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG and expert group	F20–F29
Case definition		
The person may hear or see things that are not there or strongly believe things that are not true. They may talk to themselves, their speech may be confused or incoherent and their appearance unusual. They may neglect themselves. Alternatively, they may go through periods of being extremely happy, irritable, energetic, talkative and reckless. The person's behaviour is considered 'crazy'/highly bizarre by other people from the same culture.		
Specifiers for dedicated mental health workers		
Acute psychosis (if symptoms persist for less than three months (F23))		
Chronic psychosis (if symptoms persist for more than three months) (F20–F22)		
Bipolar disorder (mania) (F30–F31, F25)		

Table 6: iRHIS 2018 case definition: dementia or delirium

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP IG and expert group	F01–F05
Case definition		
Dementia: The person has problems with memory (severe forgetfulness) and orientation (awareness of time, place and person) that have existed for at least six months and worsen over time. The person has increasing difficulties in carrying out usual work, domestic or social activities.		
Delirium: Transient and fluctuating state of severe confusion caused by physical conditions including infection, drug toxicity/withdrawal, head injury and metabolic disturbances. It is characterized by disturbed attention and reduced orientation to the environment and is often accompanied by hallucinations and disturbed behaviour.		
Specifiers for dedicated mental health workers		
Dementia (F0–F4)		
Delirium (F5)		

fundamentally different from that of dementia, its inclusion in the psychosis category may have caused confusion and even led to the use of antipsychotics in dementia, which is usually not recommended.

In round two, various reviewers made suggestions to simplify the definition, emphasising diagnoses based on interviews by non-specialists, such as not recognising people they know, getting lost on a familiar route, getting confused with time/dates.

There were diverging opinions about whether to merge 'dementia' with 'delirium' (a brief and self-limiting condition, as opposed to dementia, which is slow but progressive). However, by adding a specifier specialists would be able to classify them separately. See Table 6 for the case definition of the new iRHIS category 'dementia or delirium'.

Depression or other emotional disorder

The case definition in the RHIS 2009 for 'severe emotional disorder, including moderate-severe depression' was:

'*This person's daily normal functioning is markedly impaired for more than two weeks due to (a) overwhelming sadness/apathy and/or (b) exaggerated, uncontrollable anxiety/fear. Personal relationships, appetite, sleep and concentration are often affected. The person may complain of severe fatigue and be socially withdrawn, often staying in bed for much of the day. Suicidal thinking is common. This category includes people with moderate-severe depression and disabling forms of anxiety disorders and posttraumatic stress disorder (characterized by re-experiencing, avoidance and hyper-arousal). Presentations of milder forms of these disorders are classified as 'other psychological complaint*'.

This category prompted a wide range of diverging suggestions: five suggestions by twelve reviewers in round one and sixteen suggestions by twenty-eight reviewers in round two. The category is *transdiagnostic* (covering various disorders that in professional classification systems such as the International Classification of Diseases (ICD) and Diagnostic and Statistical Manual (DSM) are kept apart, such as depression, posttraumatic stress disorder and anxiety disorders), and it has a *severity criterion* which excludes the milder variants of these disorders. This last element is important because in acute humanitarian emergencies many people have adaptive and transient emotional symptoms – related to loss, grief and acute stress factors – that should not be confounded with a frank mental disorder (Cavallera, Jones, Weisbecker, & Ventevogel, 2019; Silove et al., 2017). In round one, six reviewers explicitly expressed that they wanted one comprehensive category that included depression, anxiety and posttraumatic stress disorder (PTSD), because these conditions often co-occur and may be difficult to distinguish for primary care providers, whereas treatment principles in primary care are largely similar. Four reviewers in round one expressed the opposite sentiment and proposed to create separate categories for depression and another for anxiety and/or stress-related disorders. Two reviewers proposed to include bipolar disorder in this category. Three reviewers suggested to include self-harm and suicide under 'Severe emotional disorders'. In the proposal that was put forward

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Table 7: iRHIS 2018 case definition: moderate–severe emotional disorder/depression

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG and expert group	F32–F39, F40–42, F43.1

Case definition

- The person's daily normal functioning is markedly impaired for more than two weeks due to overwhelming sadness/apathy and/pr
  - highly distressing symptoms related to traumatic events (re-experiencing plus avoidance plus hyperarousal) and/or
  - exaggerated or uncontrollable anxiety/fear
- Personal relationships, appetite, sleep and concentration are often affected. The person may complain of severe fatigue and be socially withdrawn, often staying in bed for much of the day. Suicidal thinking is common.
- This category includes people with moderate–severe depression, posttraumatic stress disorder, or severe forms of anxiety disorders. NB: People often have mixed presentations.
- Exclusion criteria: Milder forms of these disorders that do not cause marked impairment of daily functioning are classified as 'other psychological complaint'.

Specifiers for dedicated mental health workers

- Moderate–severe depression (F32–F39)
  - Persistent depressed mood and/or markedly diminished interest in or pleasure from activities for at least 2 weeks, AND Several of the following:
    - Disturbed sleep
    - Change in appetite or weight
    - Beliefs of worthlessness or excessive guilt
    - Fatigue or loss of energy
    - Reduced ability to concentrate and sustain attention on tasks
    - Indecisiveness
    - Observable agitation or physical restlessness
    - Talking or moving more slowly than normal
    - Hopelessness about the future
    - Suicidal thoughts or acts
  - Considerable difficulty with daily functioning in personal, family, social, educational, occupational or other important domains
- Posttraumatic stress disorder (F43.1)
  - Re-experiencing symptoms, AND
  - Avoidance symptoms, AND
  - Symptoms related to a heightened sense of current threat, AND
  - Considerable difficulty with daily functioning in personal, family, social, educational, occupational or other important domains
- Other moderate–severe emotional disorders including moderate–severe forms of anxiety disorder and mixed presentations (F40–42)

to round two, a single category for emotional disorder was retained.

Seven reviewers in round two suggested creating a separate category for depression and consequently another for different emotional disorders. The advantage is that this would be consistent with the modules in mhGAP IG and HIG. This suggestion was not adopted because it may be difficult for primary care clinicians to make a distinction between the various common mental disorders that often have overlapping symptom presentations. Two reviewers suggested to use the term 'common mental disorders', as opposed to 'severe mental disorders' (psychosis, bipolar disorder), as a concept to refer to mild and moderate forms of depression, anxiety and stress-related disorders. However, the term 'common mental disorders' causes confusion in many settings and is not generally accepted. We, therefore, prefer the more specific term 'emotional disorders'.

The category was reworded into 'moderate-severe emotional disorder' instead of 'severe emotional disorder'. This makes the case definition more compatible with the module for depression in mhGAP (that includes moderate-to-severe depression). The phrasing of '*disabling* anxiety' was changed to '*severe* anxiety'.

In the specifiers, detailed information about depression and posttraumatic stress disorder was given in line with the diagnostic criteria from the mhGAP modules. A separate category for suicide attempt/self-harm was created (see below) that can be used in addition to the other categories. See Table 7 for the iRHIS case definition of 'moderate-severe emotional disorder/depression'.

Other psychological complaint

The RHIS 2009 contained the following case definition for 'other psychological complaint':

'This category covers complaints related to emotions (e.g., depressed mood, anxiety), thoughts (e.g., ruminating, poor concentration) or behaviour (e.g., inactivity, aggression, avoidance)'.

'The person tends to be able to function in most day-to-day, normal activities. The complaint may be a symptom of a less severe emotional disorder (for example mild forms of depression, of anxiety disorder or of posttraumatic stress disorder) or may represent normal distress (i.e., no disorder). Inclusion criteria: This category should only be applied if (a) if the person is requesting help for the

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Table 8: iRHIS 2018 case definition: other psychological complaint

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG and expert group	F43.0, F43.2–F43.9 F44, F50–F52, F54
Case definition This category covers complaints related to emotions (e.g. depressed mood, anxiety), thoughts (e.g. ruminating, poor concentration) or behaviour (e.g. inactivity, aggression). The person tends to be able to function in all, or almost all, day-to-day, normal activities. The complaint may be a symptom of a less severe emotional disorder or may represent normal distress (i.e. no disorder). This category includes Acute stress: a wide range of non-specific psychological and medically unexplained physical complaints in reaction to a distressing event within the last month. Grief (Significant symptoms of grief): non-specific psychological and medically unexplained physical complaints starting in reaction to a loss that has occurred within the last 6 months and that cause considerable difficulty with daily functioning (beyond what is culturally expected) or if people seek help for the symptoms. Other psychological complaint such as dissociation, behavioural problems, etcetera Inclusion criteria: This category should only be applied if (a) if the person is requesting help for the complaint and (b) the person is not positive for any of the more specific categories. Specifiers for dedicated mental health workers Acute stress (F43.0, F43.2–F43.9) Grief: (significant symptoms of grief) Dissociative disorder (conversion) (F44) Other psychological complaint		

complaint and (b) if the person is not positive for any of the above five categories'.

In round one, only three out of fifteen reviewers explicitly wanted to keep the category as it is. One reviewer referred to the study by Kane et al. (2014) that found that in ninety refugee camps, these types of visits accounted for 9.6% of all visits. The majority of reviewers (nine) proposed to delete the category. Several reviewers proposed to merge it with 'other psychological complaints'.

For round two, a proposal was put forward that merged all 'other emotional complaints' with 'unexplained somatic complaints' into a new category, 'mild emotional complaint', that would cover sub-threshold complaints related to emotions (e.g. depressed mood, anxiety, fear), thoughts (e.g. ruminating, poor concentration) behaviour (e.g. inactivity, aggression, avoidance), and any somatic/physical complaint that does not have an apparent organic cause. In round two, only eight expert reviewers agreed with this new definition, and six proposed substantial revisions, whereas eleven disagreed with the new wording. There were great objections to the term 'mild emotional disorders/complaints', because grief and acute stress, though not pathological, are certainly not necessarily perceived as 'mild'. Others suggested that dissociative conditions should be a specifier given the high prevalence of such problems in many humanitarian settings (de Jong & Reis, 2013; van Duijl, Nijenhuis, Komproe, Gernaat, & de Jong, 2010; van Ommeren et al., 2001).

Ultimately two separate categories were maintained, as they were in the 2009 RHIS: one for 'other psychological complaint' and one for 'medically unexplained somatic complaint' (see below). In the case definition for 'other psychological complaint', explicit reference was made to the categories in the mhGAP HIG modules that would be included in this category, such as acute stress reactions and grief reactions. Both can be normal reactions to overwhelming circumstances and events, whereas they can cause great suffering. Explicit reference was also made to other psychological complaints such as dissociation and behavioural problems. Correspondingly, four specifiers were made for dedicated mental health workers (see Table 8).

Medically unexplained somatic complaint

In the 2009 version of the RHIS, the category 'medically unexplained somatic complaint' was defined as follows:

'*The category covers any somatic/physical complaint that does not have an apparent organic cause. Inclusion criteria: This category should only be applied (a) after conducting necessary physical examinations, (b) if the person is not positive for any of the above six categories and (c) if the person is requesting help for the complaint*'.

As discussed above, this category was retained (see Table 9).

Self-harm (including suicide attempt)

This category did not exist in the 2009 version of RHIS. Three reviewers commented 'suicidality' should be added as a specifier and another commented that 'suicide/self-harm' should be a separate category. From various refugee operations such as in Thailand, Nepal and Jordan, UNHCR received requests to register suicide attempts and self-harm in the RHIS. Given the potentially lethal consequences and the huge psychosocial consequences for the person, family and helpers, it is important to monitor the incidence of such events. Moreover, suicide is one of the two specific mental health indicators in the sustainable development goals (United Nations General Assembly, 2015), which makes

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Table 9: iRHIS 2018 case definition: medically unexplained somatic complaint

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG and expert group	F45
Case definition		
The category covers any somatic/physical complaint that does not have an apparent organic cause.		
Inclusion criteria		
This category should only be applied (a) after conducting necessary physical examinations, (b) if the person is not positive for any of the above six categories and (c) if the person is requesting help for the complaint.		

Table 10: iRHIS 2018 case definition: self-harm (including suicide attempt)

Classification	Source	ICD-10 version 2015
Probable case	WHO/UNHCR mhGAP HIG Practice manual for establishing and maintaining surveillance systems for suicide attempts and self-harm (WHO, 2016) Expert group	X71–X84 T14.91
Case definition		
Self-harm (including suicide attempt) is an intentional self-inflicted poisoning or injury, which may or may not have a fatal intent. Examples include burning, stabbing, self-poisoning (including overdose of illegal drugs or medication where it is clear that the self-harm was intentionally inflicted).		
Exclusion criteria: If the harm is clearly the result of an accident, then the case is not considered to be self-harm.		
Specifiers for dedicated mental health workers		
Self-harm without suicidal intention: intentional self-inflicted poisoning or injury, *without the intent to die*		
Suicide attempts: a non-fatal, self-directed, potentially injurious behaviour *with an intent to die* as a result of the behaviour; might or might not result in injury		

it even more important to collect data on suicide and suicide attempts in humanitarian settings. There are several ways to do this, for example by adding categories for self-harm and suicide attempts (with 'intent to die' as the differentiating criterion). In practice, it is not always easy to differentiate. The mhGAP IG 2.0 and HIG have one single module for self-harm/suicide, and the definition used in the IG and HIG is that 'self-harm is intentional self-inflicted poisoning or injury to oneself, which may or may not have a fatal intent or outcome'. Therefore, one case definition was used to indicate all forms of self-harm (defined as intentional self-inflicted poisoning or injury), which may or may not have a fatal intent or outcome (see Table 10).

Discussion and conclusion

Many humanitarian mental health programmes have weak and inconsistent monitoring and evaluation systems across organisations (Augustinavicius, Greene, Lakin, & Tol, 2018; Bangpan, Dickson, Felix, & Chiumento, 2017). UNHCR's new iRHIS can generate detailed and comparable data about utilization of services for MNS conditions across settings in various countries longitudinally. This is a critical aspect for improving mental health systems in humanitarian settings and needs to be embedded in a series of activities for capacity building and system changes around the integration of mental health within general health settings (International Medical Corps, 2018). The new case definitions in the iRHIS constitute a balance between continuity and change. The number of categories increased from seven to nine, which allows a more sophisticated categorisation without making the system overtly complicated. Comparison with the 'old' MNS categories will still be possible.

Major changes involve the addition of separate categories for organic psychiatric conditions such as dementia and delirium, and for self-harm and suicide attempts. The users of the iRHIS, including healthcare staff in refugee health facilities, can use the MNS categories to make a diagnosis in a person seen during a consultation. The new system is compatible with the modules of the mhGAP, which will make uptake and use easier: users of the system will typically have received a basic introduction to mental healthcare, for example through a training based on the mhGAP HIG.

This iRHIS will provide more refined data around MNS conditions. Such data can be used for more precise analysis, while maintaining sufficient continuity with the earlier version of the RHIS. The addition of specifiers for use by dedicated mental health professionals allows them to document more detailed diagnoses, with a total of twenty-two different categories to be used. As such, the new iRHIS paves the way for a next phase of professionalisation of mental health and psychosocial support in humanitarian settings. The iRHIS is currently being introduced in the countries where UNHCR used the old RHIS. After a transitional period in which the old and new system will be used simultaneously, the new system will be fully operational in 2019.

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Conflicts of interest

There are no conflicts of interest.

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[1]The mhGAP-HIG is a practitioner's guide for the clinical management of mental, neurological and substance use conditions in humanitarian emergencies.

[2]Other disease categories were also revised, including communicable diseases, non-communicable diseases, injuries and notifiable disease, with the respective case definitions updated and where possible, links were made with the International Classification of Diseases (ICD)-10 categories. These changes are not discussed in this article. See website of World Health Organization for more information on the ICD: http://www.who.int/classifications/icd/en/.