

# Minimum numbers of psychiatric beds and the importance of contextual factors: a Delphi process

<b>Submission date</b> 26/08/2020	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 12/09/2020	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 24/01/2022	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

International consensus is lacking on how many psychiatric beds (number of patients that can be accommodated on a psychiatric ward) are needed for the optimal functioning of a balanced mental health system. The availability of psychiatric beds varies widely between countries and part of this variability could be due to the heterogeneity in the definitions of 'psychiatric bed'.

Based on the consensus of experts, Canadian and American organizations have recommended approaching an objective of 50 psychiatric beds financed with public funds per 100,000 inhabitants in high-income countries (HIC). However, to date there is no systematic methodological consensus of experts that has a broad geographical and disciplinary representation regarding universal definitions of psychiatric beds, nor regarding minimum rates for short and long stay units, or specific units for special populations.

There are specific methodologies to reach a consensus of experts. One of them is the Delphi method, which involves defining a group of experts (the Delphi panel) who are invited to provide anonymous sequential and structured responses to questionnaires and surveys presented in multiple rounds. This process is usually designed by a central advisory committee that unifies and conducts the procedures (survey administration and information processing). After each round, participants are allowed to check their responses in the light of the feedback provided by knowing the means of the responses of all experts from the Delphi panel. The objective is for the group to converge towards a consensus.

The aim of this study is to reach an expert consensus on the optimum number of psychiatric beds for both adult and child and adolescent populations, as well as for the setting. The trial also aims to establish ranges of psychiatric bed rates for optimum service provision with the lower margin as a minimum number for required beds as well as ranges for three zones of scarcity as mild, moderate, and severe scarcity of psychiatric beds. The expert opinion regarding differential recommendations for countries or geographic regions based on socio-economic, cultural or epidemiological context will be explored. The goal is to generate recommendations for mental health service development.

The study also aims to establish, whether or not, there is consensus regarding specialized inpatient units: for populations with specific needs, such as forensic populations, older people, and people with substance use problems or intellectual disabilities; and in special settings such as hospital-based and non-hospital based.

**Who can participate?**

Survey respondents who are proposed by members of a Scientific Advisory Board, built for the purposes of this study and comprised by experts on mental health resources research.

**What does the study involve?**

Experts are invited to be part of a group of a Delphi panel and are requested to provide anonymous responses to questionnaires and surveys via the online platform SurveyMonkey. There will be multiple rounds of surveys with the first-round survey in September 2020, and the second survey round expected to be available in November 2020. Both surveys will be online during the entire month. Further rounds will be considered following the outcomes of the first two rounds.

**What are the possible benefits and risks of participating?**

Delphi panel members who will respond to the surveys will not directly benefit from their participation in this study. However, the collected information will be useful to learn more about the subject under study. There are no specific risks of adverse events in this study. Email and phone contact of the principal investigator and the ethics committee will be provided for any study participant who might feel the need to discuss the study or express discomfort.

**Where is the study run from?**

Diego Portales University (Chile)

**When is the study starting and how long is it expected to run for?**

From September 2020 to January 2021

**Who is funding the study?**

National Fund for Scientific and Technological Development (Chile)

**Who is the main contact?**

1. Dr Adrian Mundt  
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2. Dr Enzo Rozas  
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## Contact information

**Type(s)**

Scientific

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## **Additional identifiers**

**EudraCT/CTIS number**  
Nil known

**IRAS number**

**ClinicalTrials.gov number**  
Nil known

**Secondary identifying numbers**  
Nil known

## **Study information**

**Scientific Title**  
Minimum numbers of psychiatric beds and the importance of contextual factors: a study protocol to reach expert consensus using a Delphi process

**Study objectives**  
To explore the expert's opinion and try to reach consensus regarding the importance of contextual factors for estimating minimum and optimum psychiatric bed numbers

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**

Approved 23/07/2020, the Research Ethics Committee of the Diego Portales University of Santiago de Chile (Manuel Rodríguez Sur 415, Santiago 8370179, Chile; no telephone; comitedeetica@mail.udp.cl), ref: 013-2020

### **Study design**

A modified Delphi and cross-sectional survey study.

### **Primary study design**

Observational

### **Secondary study design**

Cross-sectional survey

### **Study setting(s)**

Internet/virtual

### **Study type(s)**

Other

### **Participant information sheet**

Not available in web format, please use the contact details below to request a participant information sheet

### **Health condition(s) or problem(s) studied**

Mental health resources

### **Interventions**

Structured, sequential questioning with controlled feedback of Delphi method will be used in this study. A Scientific Advisory Board that unifies and conducts the procedures (survey design and administration as well as information processing) has already been established.

Experts are being invited to be part of a group of a Delphi panel who are requested to provide anonymous sequential and structured responses to questionnaires and surveys presented in multiple rounds (the online platform SurveyMonkey will be used to respond to the surveys).

A first round survey will be available in September 2020, and the second round survey will be performed in November 2020. Further rounds will be considered following consensus criteria.

### **Intervention Type**

Other

### **Primary outcome measure**

1. Minimum requirement of psychiatric beds per 100,000 inhabitants for the optimal functioning of a balanced mental health system measured by expert consensus collected as anonymous sequential and structured responses to questionnaires and surveys at 0 and 2 months

### **Secondary outcome measures**

1. Optimum requirement and shortage levels of psychiatric beds per 100,000 inhabitants for the optimal functioning of a balanced mental health system measured by expert consensus collected as anonymous sequential and structured responses to questionnaires and surveys at 0

and 2 months

2. Established contextual factors for local and regional recommendations on psychiatric bed numbers measured by expert consensus collected as anonymous sequential and structured responses to questionnaires and surveys at 0 and 2 months

**Overall study start date**

10/11/2019

**Completion date**

30/01/2021

## **Eligibility**

**Key inclusion criteria**

1. Survey respondents are proposed by members of a Scientific Advisory Board, built for the purposes of this study and comprised by experts on mental health resources research who are one of the following:

1.1. Mental health researchers with participation in scientific articles of international journals related to the availability of mental health resources

1.2. Mental health managers at a local (institutional) or regional/national administration level

1.3. Mental health professionals from different disciplines (i.e. psychiatrists, health professionals, psychologists, mental health nurses, etc)

**Participant type(s)**

Health professional

**Age group**

Adult

**Sex**

Both

**Target number of participants**

At least 30 experts

**Total final enrolment**

65

**Key exclusion criteria**

1. Not proposed by any member of the Scientific Advisory Board

**Date of first enrolment**

01/06/2020

**Date of final enrolment**

31/08/2020

## **Locations**

**Countries of recruitment**

Chile

**Study participating centre**  
**Diego Portales University**  
Manuel Rodríguez Sur 415  
Santiago  
Chile  
8370179

## Sponsor information

**Organisation**  
Diego Portales University

**Sponsor details**  
Manuel Rodríguez Sur 415  
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**Sponsor type**  
University/education

**Website**  
<http://www.udp.cl/>

**ROR**  
<https://ror.org/03gtdcg60>

## Funder(s)

**Funder type**  
Government

**Funder Name**  
Fondo Nacional de Desarrollo Científico y Tecnológico

**Alternative Name(s)**  
National Fund for Scientific and Technological Development, El Fondo Nacional de Desarrollo Científico y Tecnológico, FONDECYT

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

Chile

## Results and Publications

**Publication and dissemination plan**

Planned publication in a high-impact peer-reviewed journal

**Intention to publish date**

31/03/2022

**Individual participant data (IPD) sharing plan**

The datasets generated and/or analysed during the current study during this study will be included in the subsequent results publication

**IPD sharing plan summary**

Other

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol file</a>			08/10/2020	No	No
<a href="#">Results article</a>		21/01/2022	24/01/2022	Yes	No