

The Covid-19 Mental Health Forecast Model is designed to help local areas calculate the increase in mental health needs that will result from the Covid-19 pandemic. The precise impact is unknown and predictions are difficult. However, this tool is designed to help local areas think through the specific demographics of their communities and determine the services that may be required.

The model has been designed through an informal collaboration of doctors, clinicians, researchers and economists. It is a simple spreadsheet that

- Identifies key groups whose mental health is likely to suffer during/after the pandemic
 - Presents the most robust evidence/research available to estimate the increase whilst noting that the findings will be limited because the subject area is entirely new
- Combines this information to offer a total for each group
- Offers a total increase in need for a given community

THE SPREADSHEET MUST BE USED IN CONJUNCTION WITH THE ATTACHED POWER POINT SLIDE-DECK WHICH EXPLAINS THE RESEARCH AND ASSUMPTIONS

The spreadsheet is designed so that individual areas can input their own assumptions and local data. Whilst it will produce a series of indicative totals, the model should not be used to create concrete predictions of future need. It is intended to guide commissioners and clinicians in their conversations from which they can discern where to focus resources

There are three important points to note

1) The model will be revised as more research becomes available. This will change the calculations. Therefore, please ensure you are using the correct version by contacting the Team before you start to use it.

2) The 'Discount Rate' column reflects the risk of double-counting people who are included in more than one group. The higher the chance, the higher the discount rate. Where some groups are small – people in ICU for example – we have placed the discount rate at zero. We This may lead to a small over-estimation. The user is able to change these rates if they prefer. Please note that we have not discounted for co-morbidity and services may wish to consider this.

3) The 'Percentage or number requiring services' column estimates how need translates into service use and discounts accordingly. The estimates we have used are from clinicians and not a scientific fact. You are free to change these assumptions, or reduce them to zero.

Finally, this is a work in progress. We welcome input, ideas and corrections from you. Ultimately, we are trying to predict the unknown and this is hard. If there are changes you can see that would help improve the model, please tell us. We are particularly interested in other groups and communities where we anticipate increased mental health needs, but for whom we have not been able to identify robust research to predict that increase.

For questions pertaining to the spreadsheet, please contact Nick O'Shea at Centre for Mental Health on nick.oshea@centreformentalhealth.org.uk

For questions on the adult research references please contact Rebecca Cummins from Cheshire and Wirral NHS Trust, rebecca.cummins1@nhs.net or Katrina Lake, NHS England and Improvement on katrina.lake4@nhs.net

For questions on Children and Young People research references, please contact Gavin Lockhart, NHS England and Improvement gavin.lockhart1@nhs.net

ENDS



Population group	Research study author	Number of people in population group (pre-Covid)	Research determined increase (percentage)	Mental health condition	Calculated predicted new cases of mental health condition	Percentage or number of people who may access services	Predicted extra demand for services	Discount rate	Most likely predicted new demand for services	Year demand is anticipated	Mental health condition	Confidence rating of study
General population without pre-existing mental health conditions	Fancourt et al	35,479,863	16.3%	Moderate severe anxiety	5,783,218	25%	1,445,804	28%	1,038,963		Moderate severe anxiety	Amber
	Fancourt et al	35,479,863	22.3%	Moderate severe depression	7,912,009	25%	1,978,002	28%	1,421,403		Moderate severe depression	Amber
People with pre-existing mental health conditions	Fancourt et al	7,524,777	67.4%	Moderate severe anxiety	5,071,700	49.9%	2,530,778	0%	2,530,778		Moderate severe anxiety	Amber
	Fancourt et al	7,524,777	56.3%	Moderate severe depression	4,236,449	61.3%	2,596,944	0%	2,596,944		Moderate severe depression	Amber
Intensive Care Unit Staff	Greenberg et al	13,312	6.0%	Severe Depression	799	25.0%	200	0%	200		Severe Depression	Green
	Greenberg et al	13,312	11.0%	Anxiety	1,464	25.0%	366	0%	366		Anxiety	Green
	Greenberg et al	13,312	40.0%	PTSD	5,325	25.0%	1,331	0%	1,331		PTSD	Green
Frontline workers: Hospital, care homes, community settings	Greene et al	2,372,352	46.9%	Depression	1,112,633	25%	278,158	0%	278,158		Depression	Green
	Greene et al	2,372,352	47.3%	Anxiety	1,122,122	25%	280,531	0%	280,531		Anxiety	Green
	Greene et al	2,372,352	22.5%	PTSD	533,779	25%	133,445	0%	133,445		PTSD	Green
Adults recovering from severe Covid-19 (ICU admission)	Taquet et al	20574	5.8%	Mood disorder (first)	1,197	25%	299	0%	299		Mood disorder (first)	Green
	Taquet et al	20,574	9.8%	Anxiety disorder (first)	2,014	25%	504	0%	504		Anxiety disorder (first)	Green
	Taquet et al	20,574	0.7%	Psychotic disorder (first)	144	25%	36	0%	36		Psychotic disorder (first)	Green
Adults hospitalised with Covid-19 (but not admitted to ICU)	Taquet et al	262,588	4.5%	Mood disorder (first)	11,790	25%	2,948	0%	2,948		Mood disorder (first)	Green
	Taquet et al	262,588	6.9%	Anxiety disorder (first)	18,145	25%	4,536	0%	4,536		Anxiety disorder (first)	Green
	Taquet et al	262,588	0.9%	Psychotic disorder (first)	2,337	25%	584	0%	584		Psychotic disorder (first)	Green
Patients with encephalopathy following Covid-19	Taquet et al	115,157	8.1%	Mood disorder (first)	9,293	25%	2,323	0%	2,323		Mood disorder (first)	Green
	Taquet et al	115,157	9.2%	Anxiety disorder (first)	10,641	25%	2,660	0%	2,660		Anxiety disorder (first)	Green
	Taquet et al	115,157	2.1%	Psychotic disorder (first)	2,441	25%	610	0%	610		Psychotic disorder (first)	Green
Adults diagnosed with Covid-19 but not admitted to hospital	Taquet et al	3,315,589	3.9%	Mood disorder (first)	127,982	25%	31,995	0%	31,995		Mood disorder (first)	Green
	Taquet et al	3,315,589	6.8%	Anxiety disorder (first)	225,792	25%	56,448	0%	56,448		Anxiety disorder (first)	Green
	Taquet et al	3,315,589	0.3%	Psychotic disorder (first)	8,289	25%	2,072	0%	2,072		Psychotic disorder (first)	Green
Adult family members of those recovering from severe Covid-19	Davidson et al	30244	19.5%	Anxiety (15-23%)	5,898	25%	1,474	0%	1,474		Anxiety (15-23%)	Green
	Davidson et al	30244	6.0%	Depression	1,815	25%	454	0%	454		Depression	Green
	Davidson et al	30,244	35.0%	Post traumatic stress disorder	10,585	25%	2,646	0%	2,646		Post traumatic stress disorder	Green
Bereaved people	Lurndorff M et al	458,943	9.8%	Prolonged grief disorder	44,976	25%	11,244	0%	11,244		Prolonged grief disorder	Green
	Lurndorff M et al	458,943	14.0%	Post traumatic stress disorder	64,252	25%	16,063	0%	16,063		Post traumatic stress disorder	Green
	Lurndorff M et al	458,943	18.4%	Depressive symptoms	84,445	25%	21,111	0%	21,111		Depressive symptoms	Green
Carers for children with learning disabilities	Willner et al	256,463	18.0%	Depression	46,163	25%	11,541	0%	11,541		Depression	Amber
Carers for adults with learning disabilities	Willner et al	124,961	31.0%	Depression	38,738	25%	9,684	0%	9,684		Depression	Amber
People economically affected by Covid-19	Economou et al	3,013,657	8.2%	Major depression	247,120	25%	61,780	0%	61,780		Major depression	Amber
TOTAL		52,988,479			26,743,556		9,486,573		8,523,133			

KEY

Master cell - this will change the rest in the same section

Year of expected demand	Demand
year 1	-
year 2	-
year 3	-
year 4	-
year 5	-
TOTAL	-

Population group	Research study author	Number of people in population group (pre-Covid)	Research determined increase (percentage)	Mental health condition	Calculated predicted new cases of mental health condition	Percentage or number of people who may access services	Predicted extra demand for services	Discount rate	Most likely predicted new demand for services	Mental health condition	Confidence rating of study
Children and Young People General population	Alisic et al	9,982,684	5.6%	Post traumatic stress disorder (Range 4.7%-22.9%)	559,030	35%	195,661	33%	131793	Post traumatic stress disorder (Range 4.7%-22.9%)	Green
	Tang et al. Wang et al.	9,982,684	19.5%	Depression (1.6%-44.8%)	1,946,623	35%	681,318	33%	458922	Depression (1.6%-44.8%)	Green
Children and young people experiencing quarantine and social isolation	Loades et al	3,248,640	35.85%	Depression (10.1% - 81.8%)	1,164,637	35%	407623.104	0%	407623	Depression (10.1% - 81.8%)	Amber
	Sprang et al	3,248,640	14.05%	Anxiety (4.2%- 32.3%)	456,434	35%	159751.872	0%	159752	Anxiety (4.2%- 32.3%)	Red
	Stikkebroek et al	9,853	22.5%	Internalising disorder	2,217	35%	776	0%	776	Internalising disorder	Amber
Bereaved children	Pharm et al	9,853	10.0%	Post traumatic stress disorder	985	35%	345	0%	345	Post traumatic stress disorder	Red
	Nelson & Gold	66	11.75%	Post traumatic stress disorder (5%-28.5%)	8	35%	3	0%	3	Post traumatic stress disorder (5%-28.5%)	Amber
TOTAL		29,731,061			5,104,527		1,786,585		1,500,320		

Items which have changed since the last published version on 14th September 2020

Children and Young People: No changes

Adults

New sub-groups

Intensive Care Unit Staff

Patients with encephalopathy following Covid-19

Patients diagnosed with Covid-19 but not hospitalised

Carers for children with learning disabilities

Cares for adults with learning disabilities

New research used to estimate need

Frontline workers. Hospital, care homes and community settings

Adults recovering from severe Covid-19 (ICU admission)

Adults hospitalised with Covid-19 but not admitted to ICU

Changes to cells

A new column - K - has been inserted to give users the opportunity to predict the year demand will be observed in their area. Yearly totals sum automatically

The Discount Rate for the General Population - I2 - now includes all other population groups