



Real World Evidence (RWE) of Mental Health before and during the COVID-19 pandemic in India

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02 May 2022, Atlanta, USA

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- › Introduction: Mental health in India
- › Indian Ecosystem
- › Timeline of COVID-19 in India
- › Factors contributing to Mental health in India
- › RWE Data Analysis from 780 participants
- › Conclusion
- › Principles for Good Mental health
- › Questions & Answers



Introduction: Mental health in India

- Over the last couple of years, COVID-19 has rattled the very basic root of human civilization
- Now, with a total of 513 million cases and 6.26 million deaths worldwide, we are still unsure about when this pandemic will be under control*
- Fear and worry are normal responses to pandemic situations
- Mental health issues have been reported from all over the world and global prevalence of anxiety and depression increased by a massive 25%, according to World Health Organization (WHO)
- For several reasons, the situation in India is unique and of particular importance to the global pandemic



*Reference from worldometer. Numbers are subject to change

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Indian Ecosystem

- The variety and extent of the implications of the COVID-19 pandemic for mental health are yet to be fully understood in India

- India was the first country in the world to attempt to integrate mental health services with general health services at the primary care level through the NMHP, its endeavors to bridge the treatment gap and decrease the deficits in human resources, failed to gain the desired momentum
- The progress has been very slow even after 30 years of its launch

- NMH survey reported an alarming deficit of 77% for psychiatrists, 97% for clinical psychologists, and 90% for psychiatric social workers
- Spiritual and traditional healers are often the first contact of care for mental illness in India

- The health care system in India is complex with respect to the ownership pattern and is broadly categorized into public or private owned systems
- Health is a state subject

- Population: 1.4 Billion (17.7% of Total World population)
- 29 states and 8 union territories
- 22 Official Languages
- Democratic federal secular government system



- India was one of the first in the developing world to initiate a National Mental Health Programme (NMHP) in 1982
- India has a national mental health policy which was rolled out in 2014
- The Mental Health Care Bill was passed (It intends to repeal the Mental Health Act, 1987)

Different groups in specific ways

- Women
- Children
- Young people
- Migrant workers and daily wage laborer
- Doctors and frontline workers
- Sexual minority groups
- People with pre-existing mental health conditions
- People with substance use disorders

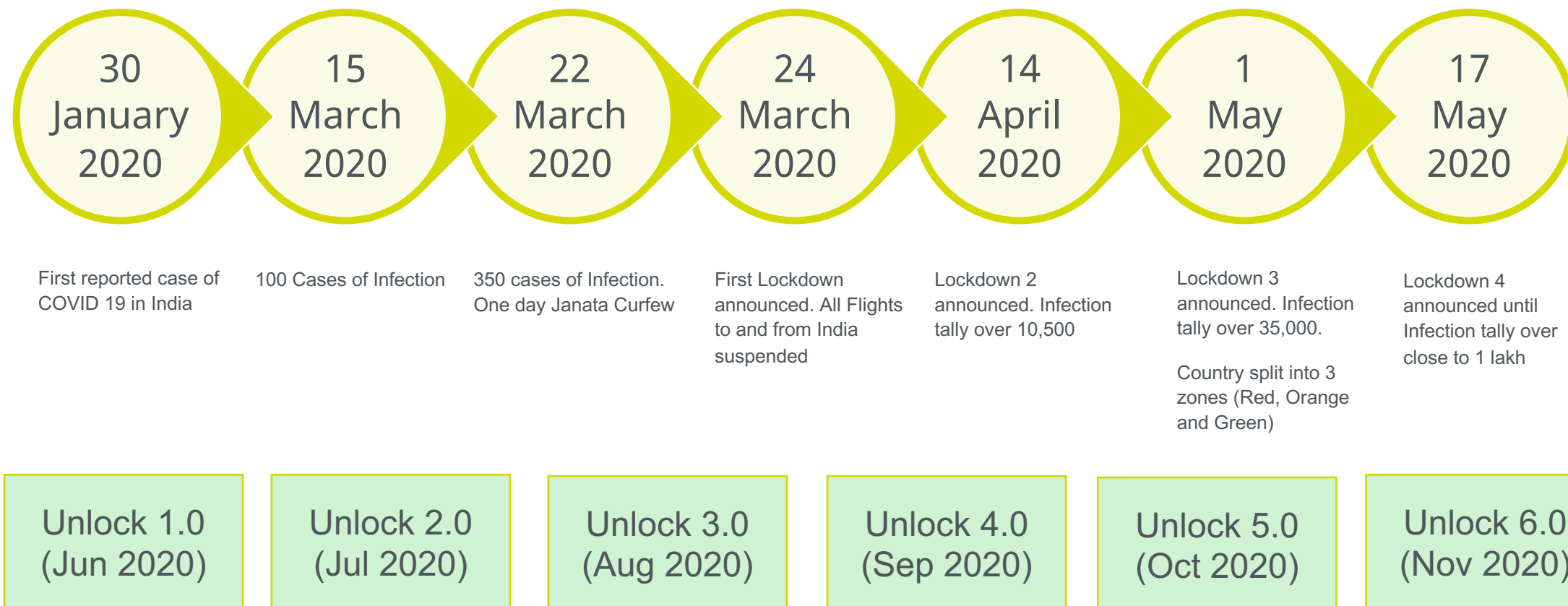
Responding to the crisis

- Telemedicine platforms
- Central government initiatives
- At the state level
- Several nonprofits, private hospitals, and universities

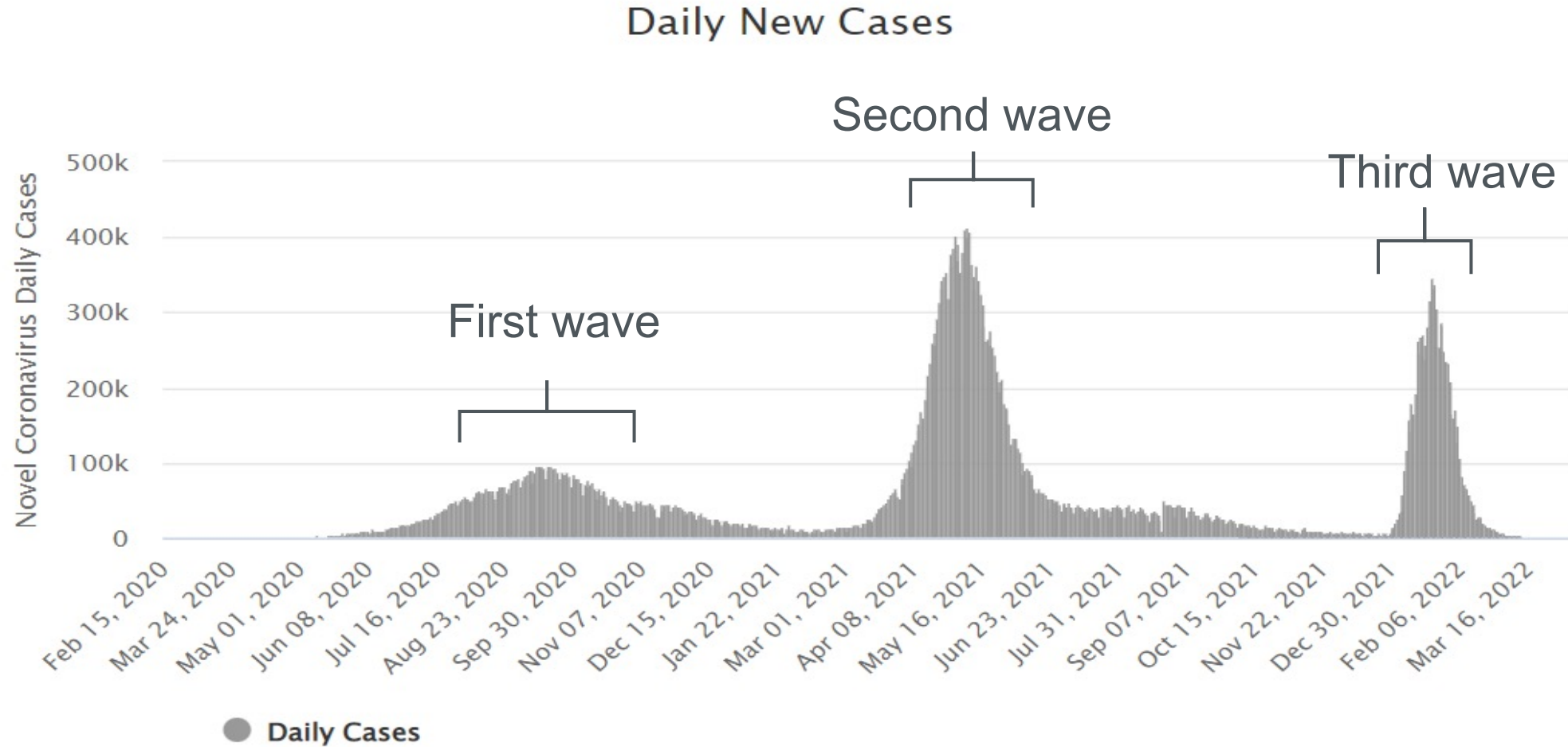
- India is socio-culturally, politically diverse and economically stratified

Timeline of COVID-19 in India

- The first COVID-19 positive case was detected on January 30, 2020, in the southern state of Kerala



Daily new cases in India



Total cases = Recovered + Deaths

43,060,096

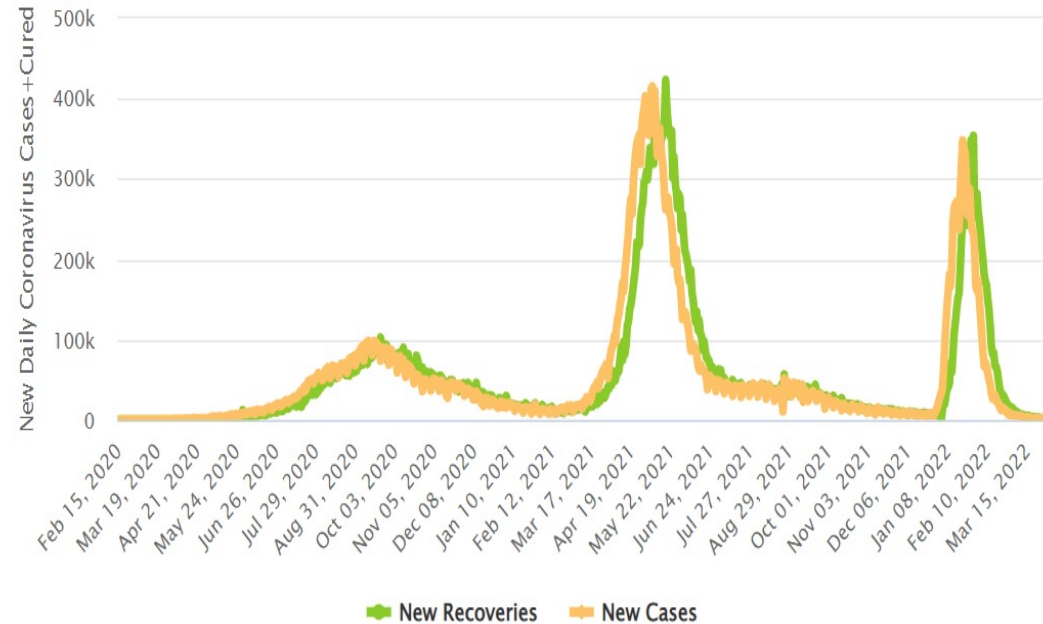
Cases which had an outcome:

42,536,253 (99%)
Recovered / Discharged

523,843 (1%)
Deaths

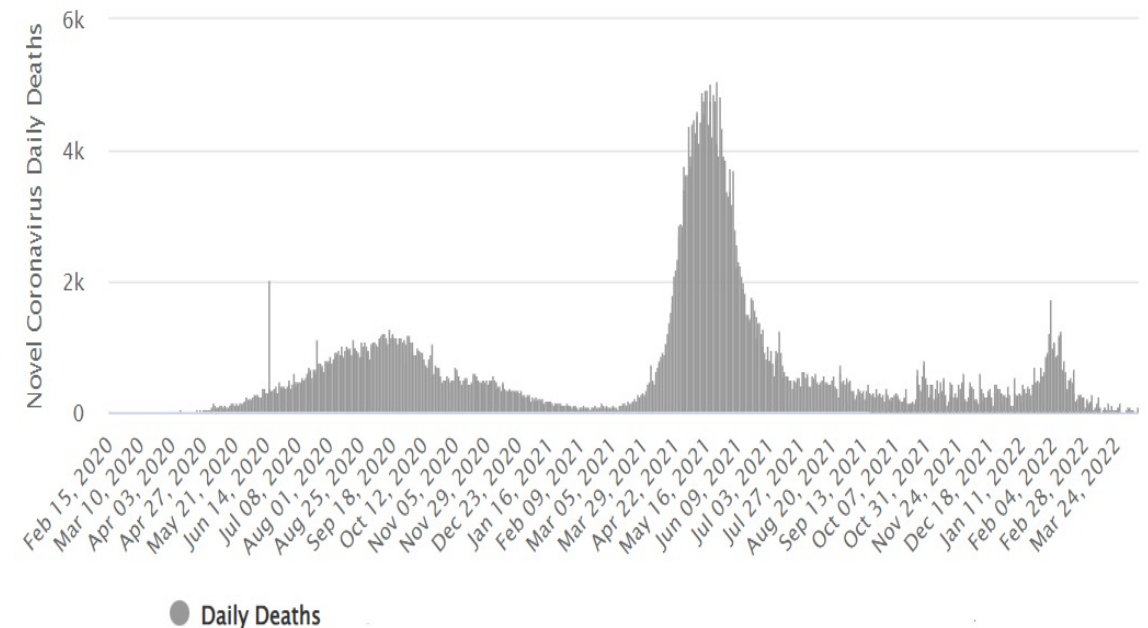
New Cases vs. New Recoveries

(Number of newly infected vs. number of recovered and discharged patients each day)



Daily Deaths

Deaths per Day



Major factors that contribute to the Mental health issues in India

- › Lack of help
- › Long periods Of isolation
- › Frontline workers not being able to come physically close to their family members
- › Loss of job
- › Financial difficulty
- › Not being able to see or meet loved ones
- › Alcohol and substance abuse due to stress
- › Fear of the unknown
- › Stigma
- › Cloud of uncertainty
- › Constantly worrying about getting infected and infecting people around you
- › Not being able to express oneself
- › Having to work overtime, complete disruption of work-life balance
- › Losing loved ones due to the infection
- › Increase in domestic violence
- › Closed institutions
- › Social media/News

Mental health before COVID-19 pandemic in India

- Previous assessments of the mental health burden in India have revealed that the prevalence of major mental and behavioral disorders at any given point of time was estimated at 65 / 1000 population in all ages and both sexes
- National Health Survey 2015 -2016 in India has estimated that nearly 10.7% of the Indian population suffers from a mental health illness

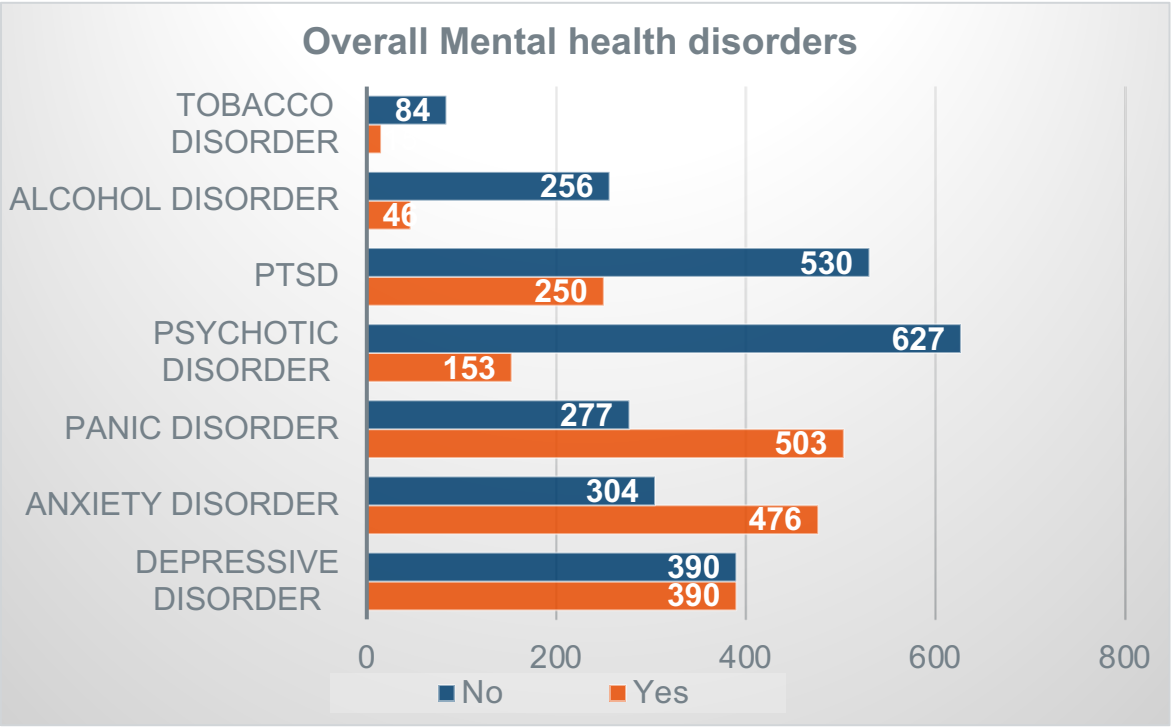
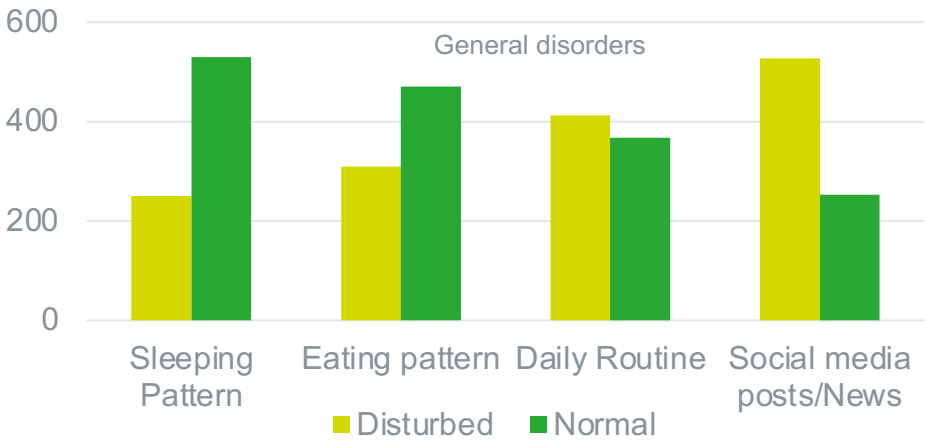
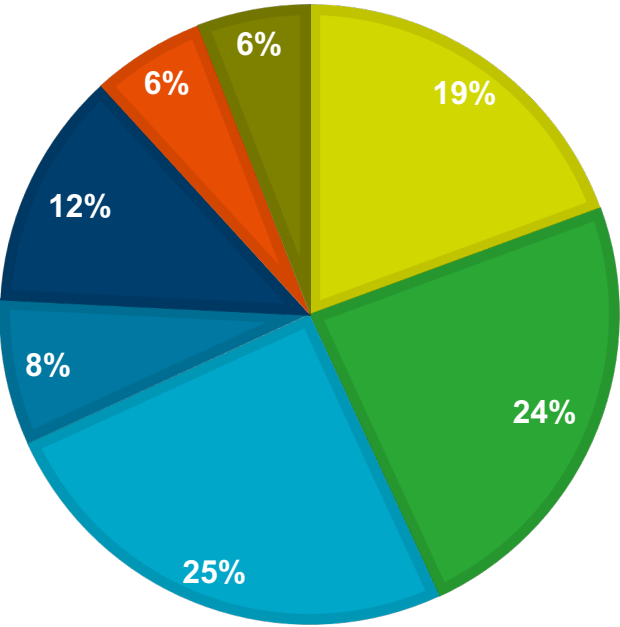
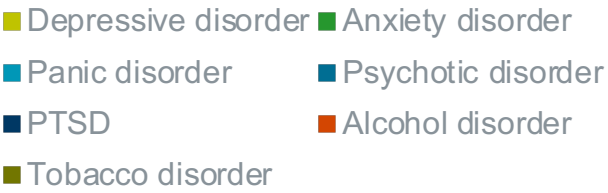
Summary statistics (During the pandemic)

Summary Statistics of Study Participants (n=780)

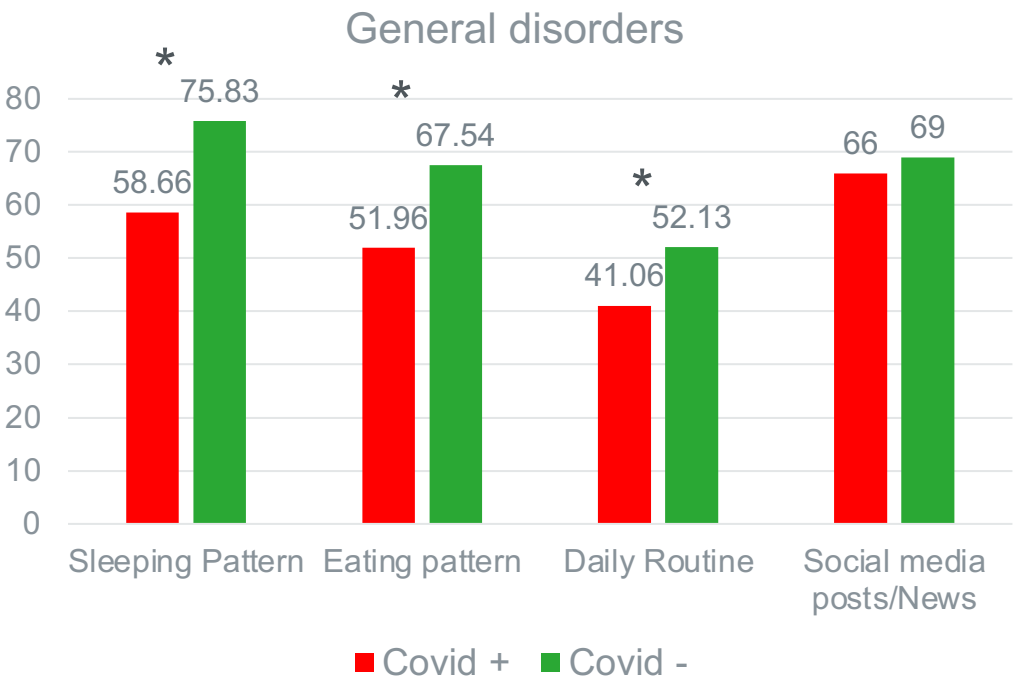
Variable		Frequency	Percentage
Gender	Male	639	81.92%
	Female	141	18.08%
Age	18 - 45	655	83.97%
	45 - 60	119	15.26%
	Above 60	6	0.77%
Profession	Employed or Self Employed	630	80.76%
	Home maker	25	3.21%
	Retired	8	1.03%
	Student	73	9.36%
	Unemployed	44	5.64%
Blood Groups	A+	121	15.51%
	A-	6	0.77%
	B+	256	32.82%
	B-	16	2.05%
	O+	317	40.64%
	O-	23	2.95%
	AB+	37	4.75%
	AB-	4	0.51%
Infected with COVID-19 virus ?	Yes	358	45.90%
	No	422	54.10%

Results

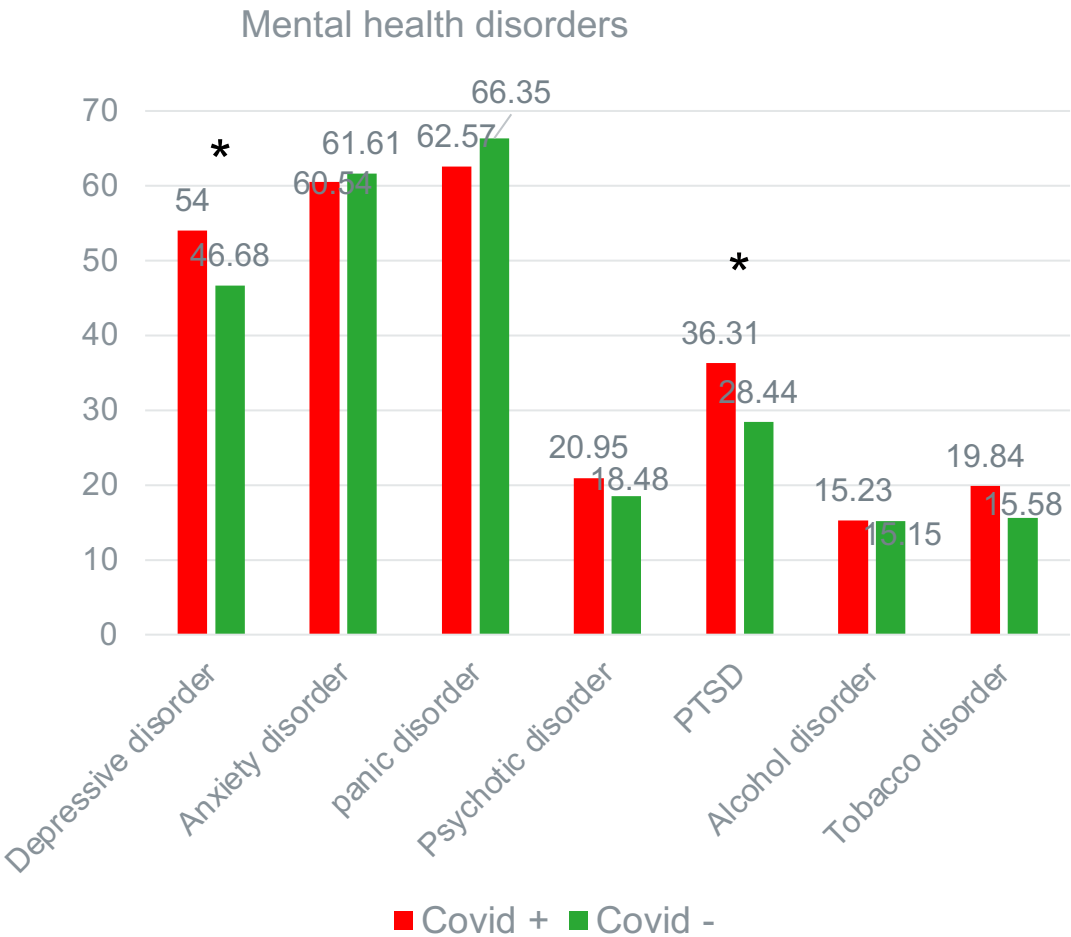
OVERALL MENTAL HEALTH



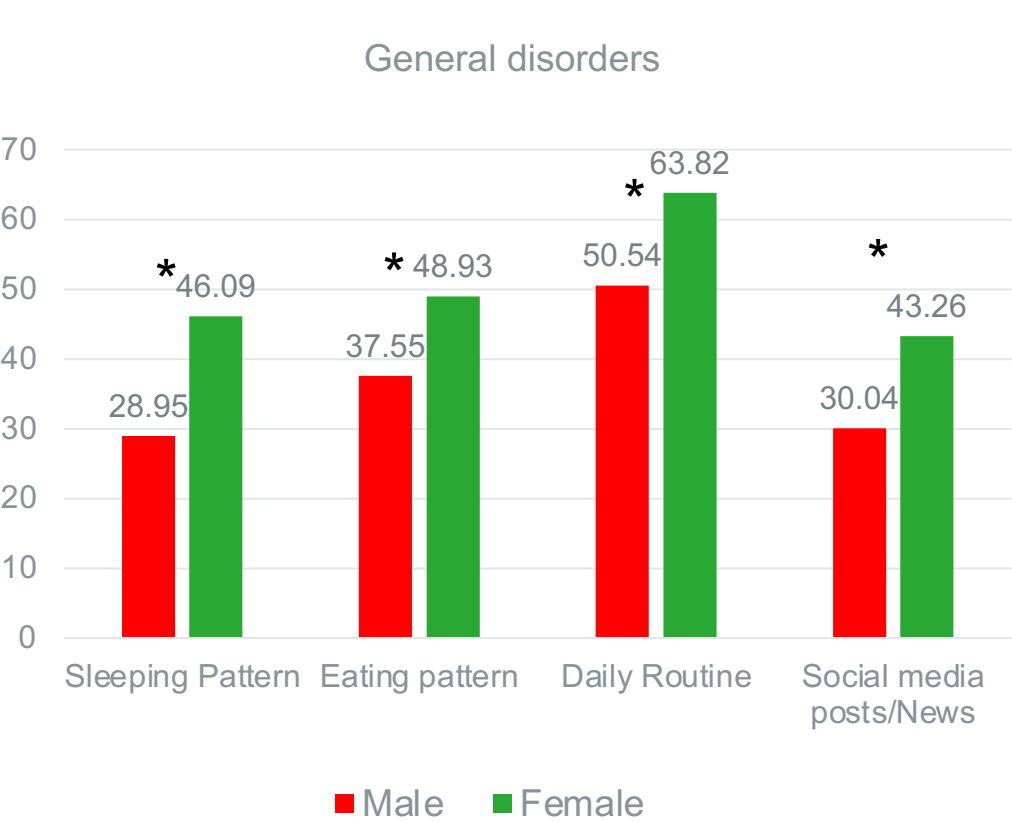
Prevalence of Mental health disorders (%) by Covid positive & Covid negative participants



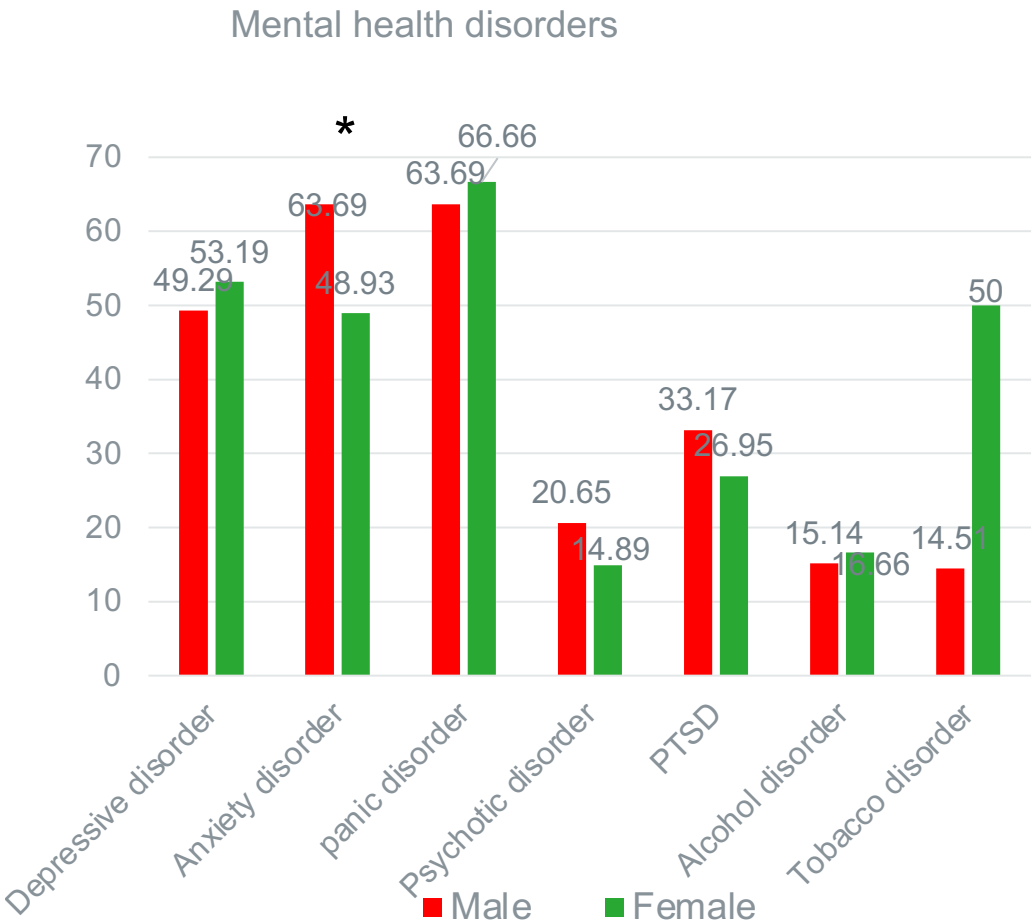
* Statistically significant difference



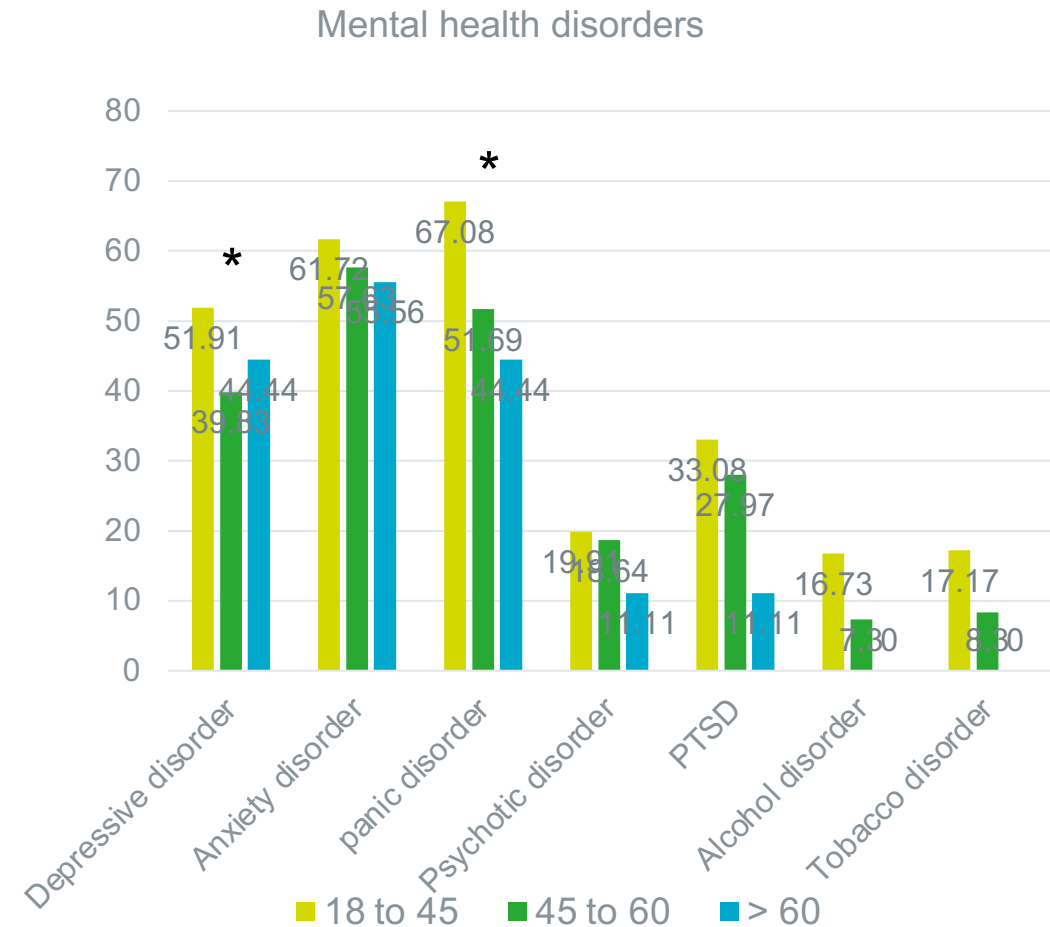
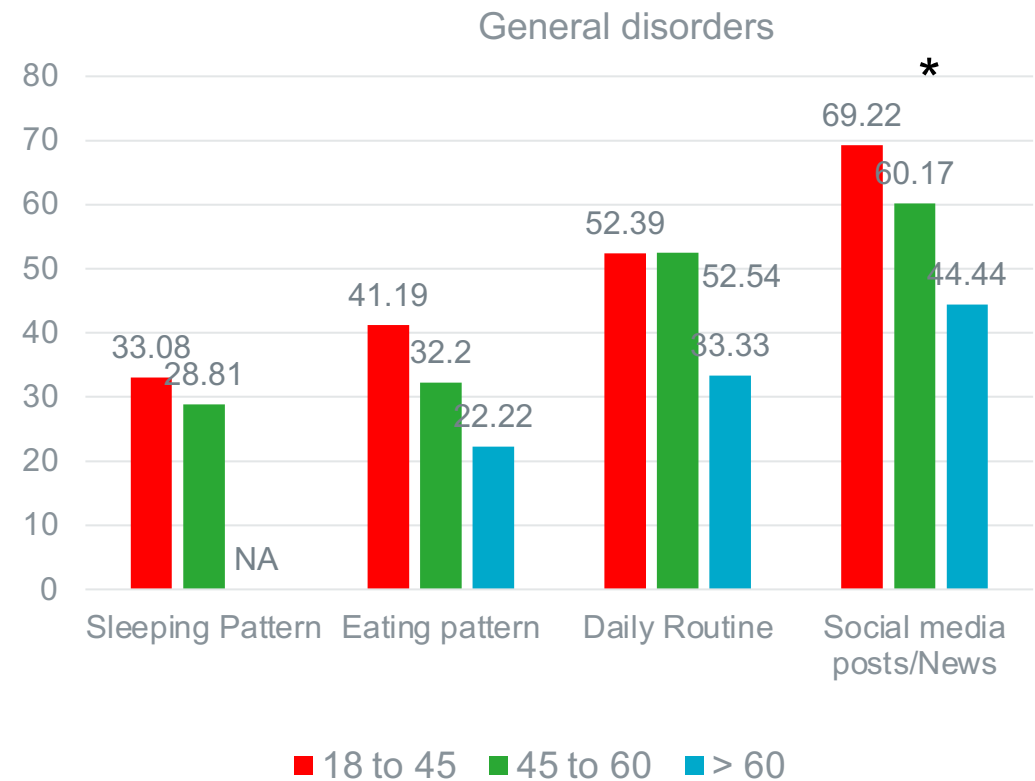
Prevalence of Mental health disorders (%) by Gender



* Statistically significant difference

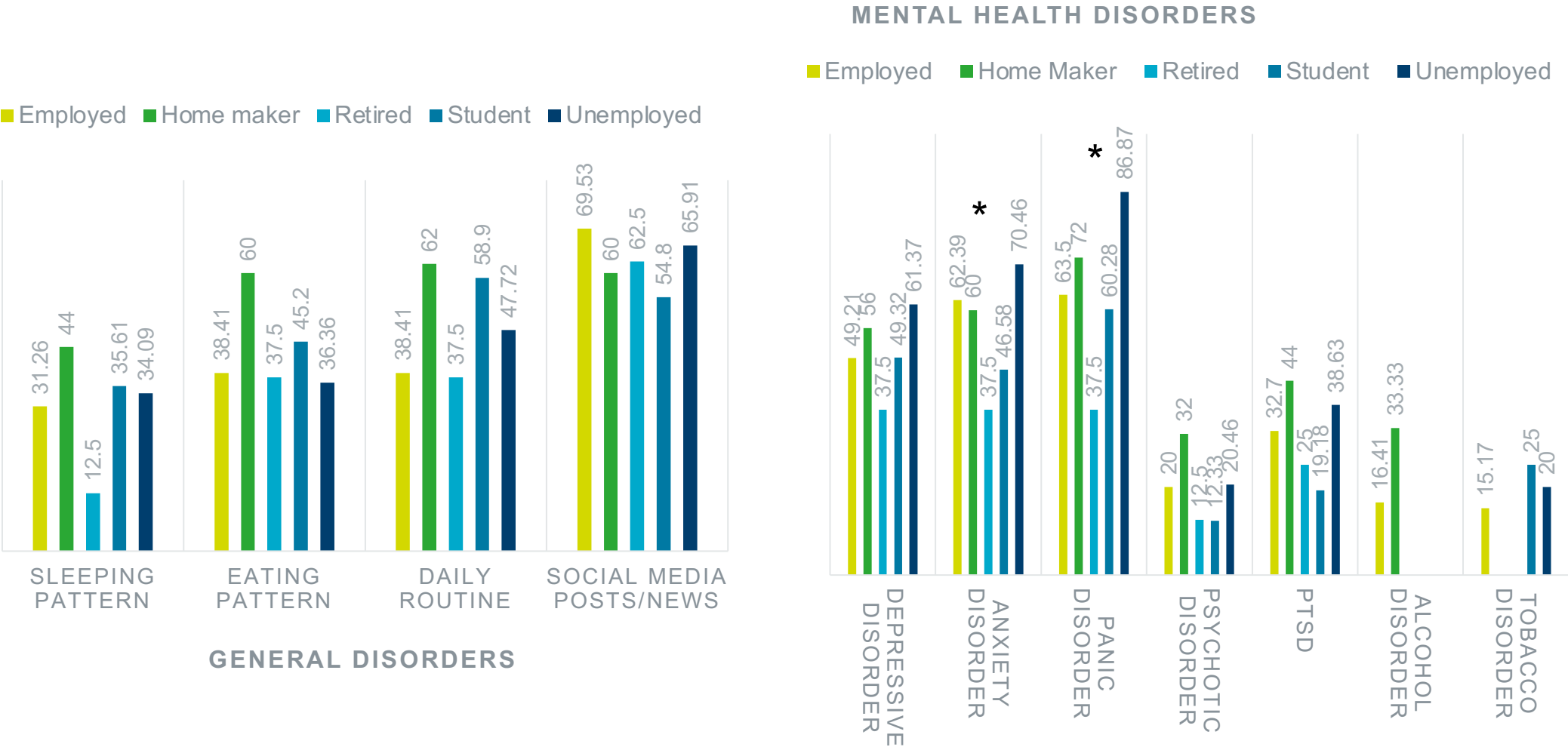


Prevalence of Mental health disorders (%) by Age category



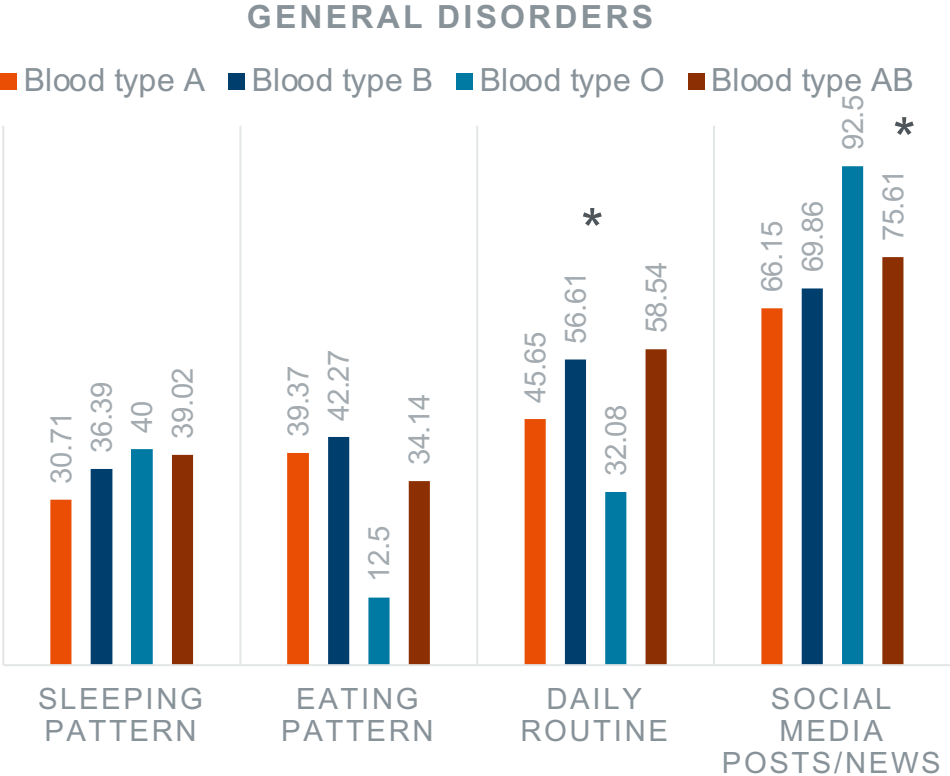
* Statistically significant difference

Prevalence of Mental health disorders (%) by Profession

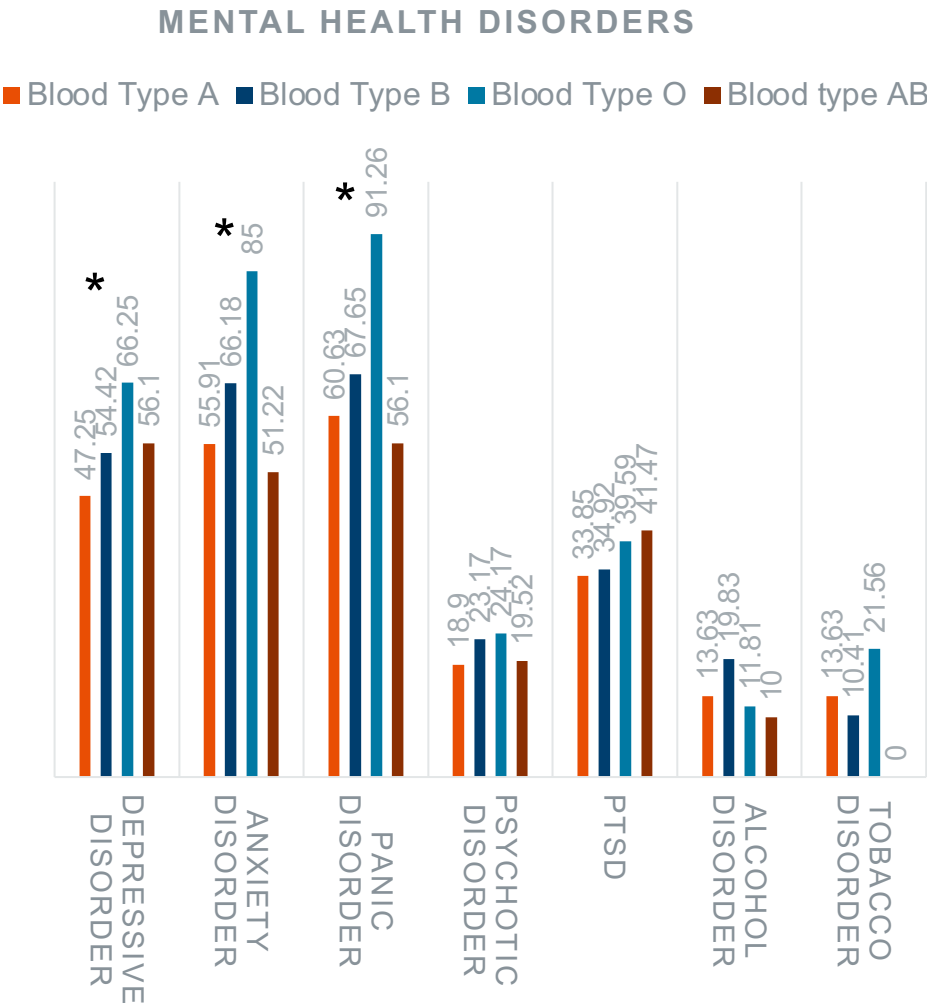


* Statistically significant difference

Prevalence of Mental health disorders (%) by Blood types



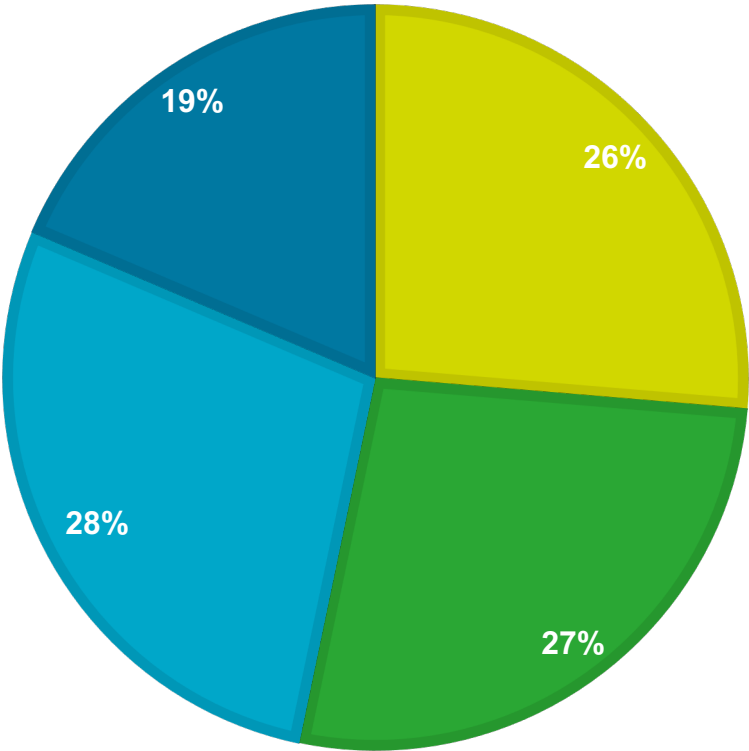
* Statistically significant difference



Blood type and covid positive cases

COVID-19

■ Blood type A ■ Blood type B ■ Blood type O ■ Blood type AB



Blood type	Overall	Covid Positive	
	N	n	%
A Type	127	57	44.88
B Type	272	125	45.95
O Type	340	163	47.94
AB Type	41	13	31.70

Conclusion

- Mental health due to COVID-19 disorders are significantly increasing across the globe including India
- Mental health care is next vaccine world needs...!
- Building strong health systems that integrate mental health with the larger public health system based on evidence-backed practices is the need of the hour
- Most significantly, Mental health should be given higher priority in the developmental agenda of India
- RWE play a crucial role in Mental health

Principles for good Mental Health



1. Nutrition
2. Exercise
3. Water
4. Sunshine
5. Temperance
6. Air
7. Rest
8. Trust
9. Yoga

References

- › [National Mental Health Survey, 2015-16 - Mental Health Systems_0.pdf \(mohfw.gov.in\)](#)
- › [COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide \(who.int\)](#)
- › [Mental health implications of the COVID-19 pandemic in India. \(apa.org\)](#)
- › [COVID Live - Coronavirus Statistics - Worldometer \(worldometers.info\)](#)

Acknowledgements

- › Jayapandian N, Head of Statistical Programming, India operations
- › Mahendra Bijarnia, Director, Biostatistics
- › My team members Amritha Varshini P, Deepak Neelam and Arnab Kanjilal
- › Thank you PhUSE and Parexel for providing this opportunity

Questions...!





THANK YOU