



expression of depression

inclusion through citizen science
without too much medicine 💊

JITTN cohort3

2024/05/23

Ram's story



Morgan's story



静かなるパンデミック

silent pandemic

Depression for new fathers

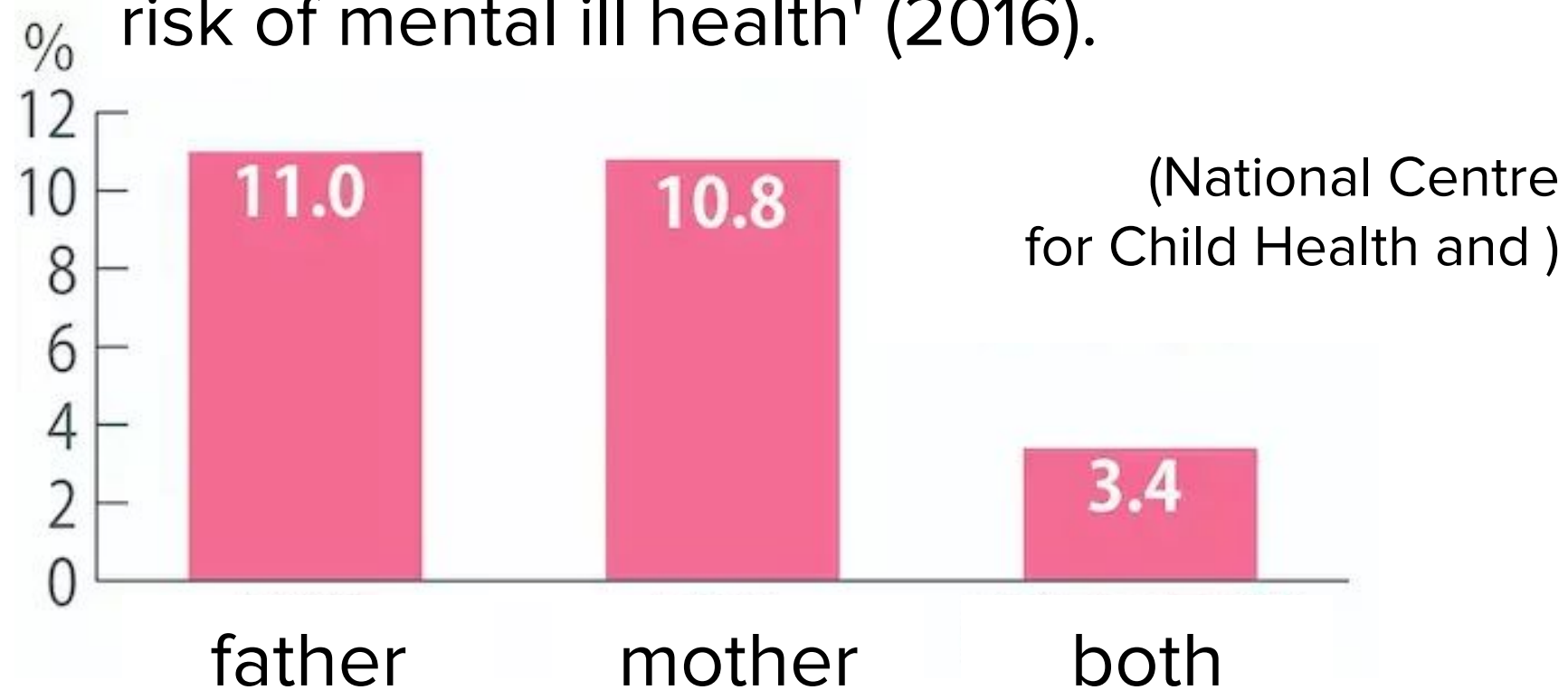
11%

JPN

10%

IND

Percentage of parents raising children under one year of age judged to be 'at risk of mental ill health' (2016).



“

Depression

322,000,000

(4% of population)

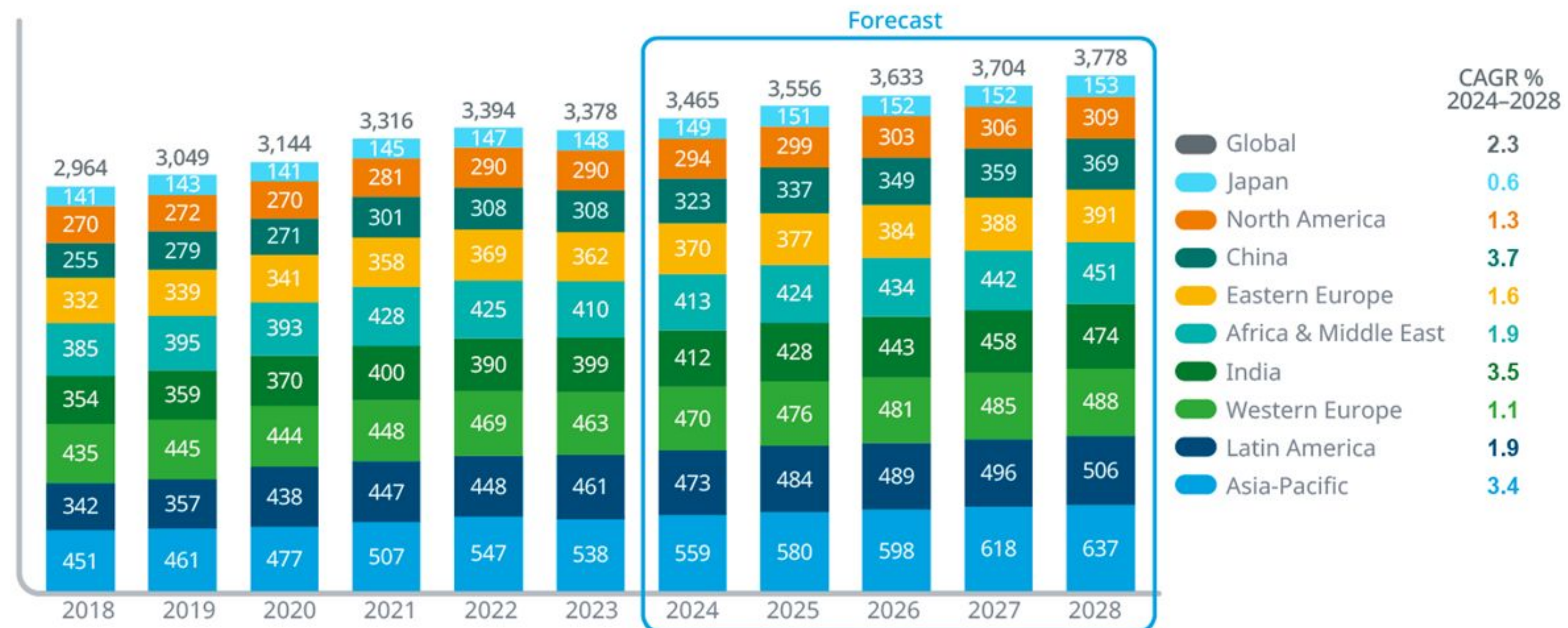
(WHO)

”

Data shows



Historical and projected use of medicines by region, 2018–2028, Defined Daily Doses (DDD) in billions



Source: IQVIA Institute, Dec 2023.

Notes: Chart represents IQVIA Institute estimates of global defined daily doses (DDD). These estimates are based on IQVIA audited data and application of WHO-DDD factors in IQVIA MIDAS as well as additional DDD calculation assumptions developed by the IQVIA Institute (see Methodology). Asia-Pacific does not include China, India, and Japan which are reported separately. 2023 volume is based on actual data as of June 2023 and projected for the remainder of the year. Report: Global Use of Medicines 2024: Outlook to 2028. IQVIA Institute for Human Data Science, January 2024.

It may happen...

for everyone

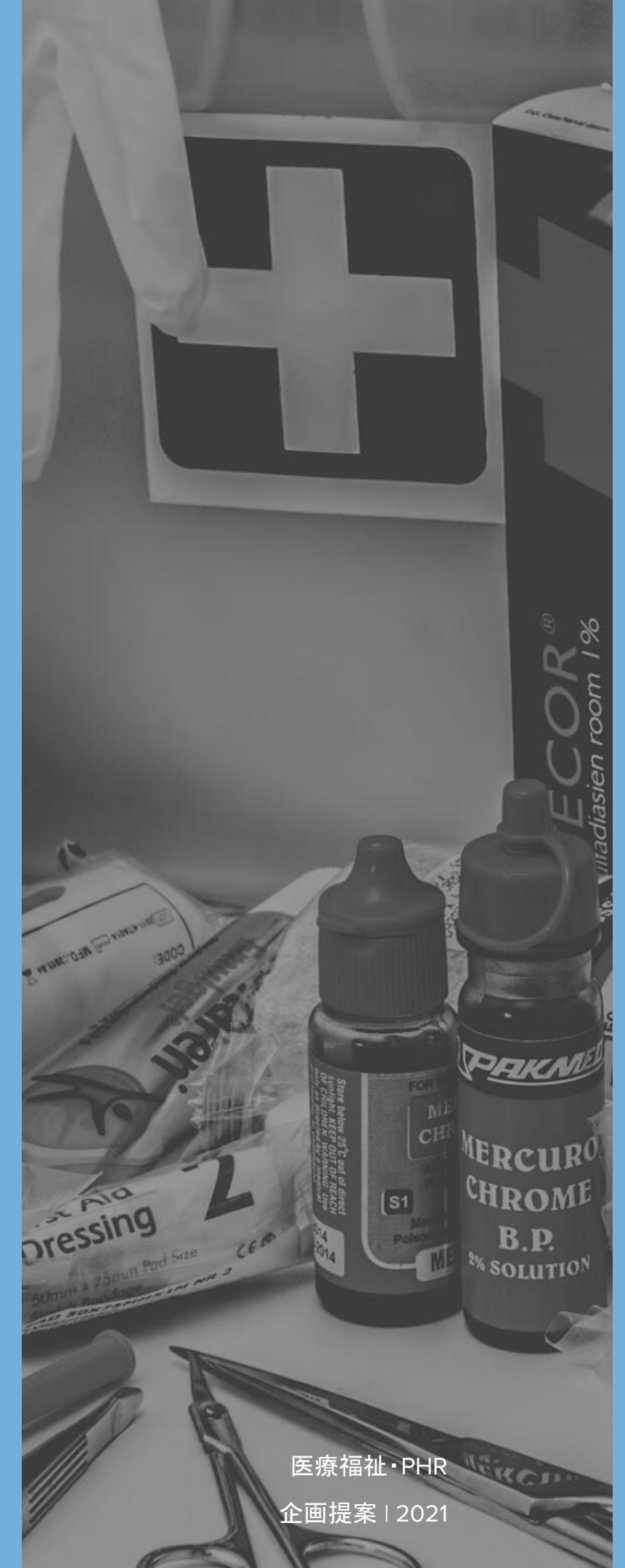
Because we Japanese and Indian work too much,
we don't get enough exercise & sleep
we tend to lose our balance and become depressed.





PROBLEM

Ram and Morgan, working professionals with family backgrounds and others with depression need a **non-invasive methods** to **share, learn** and be a part of the **community**.

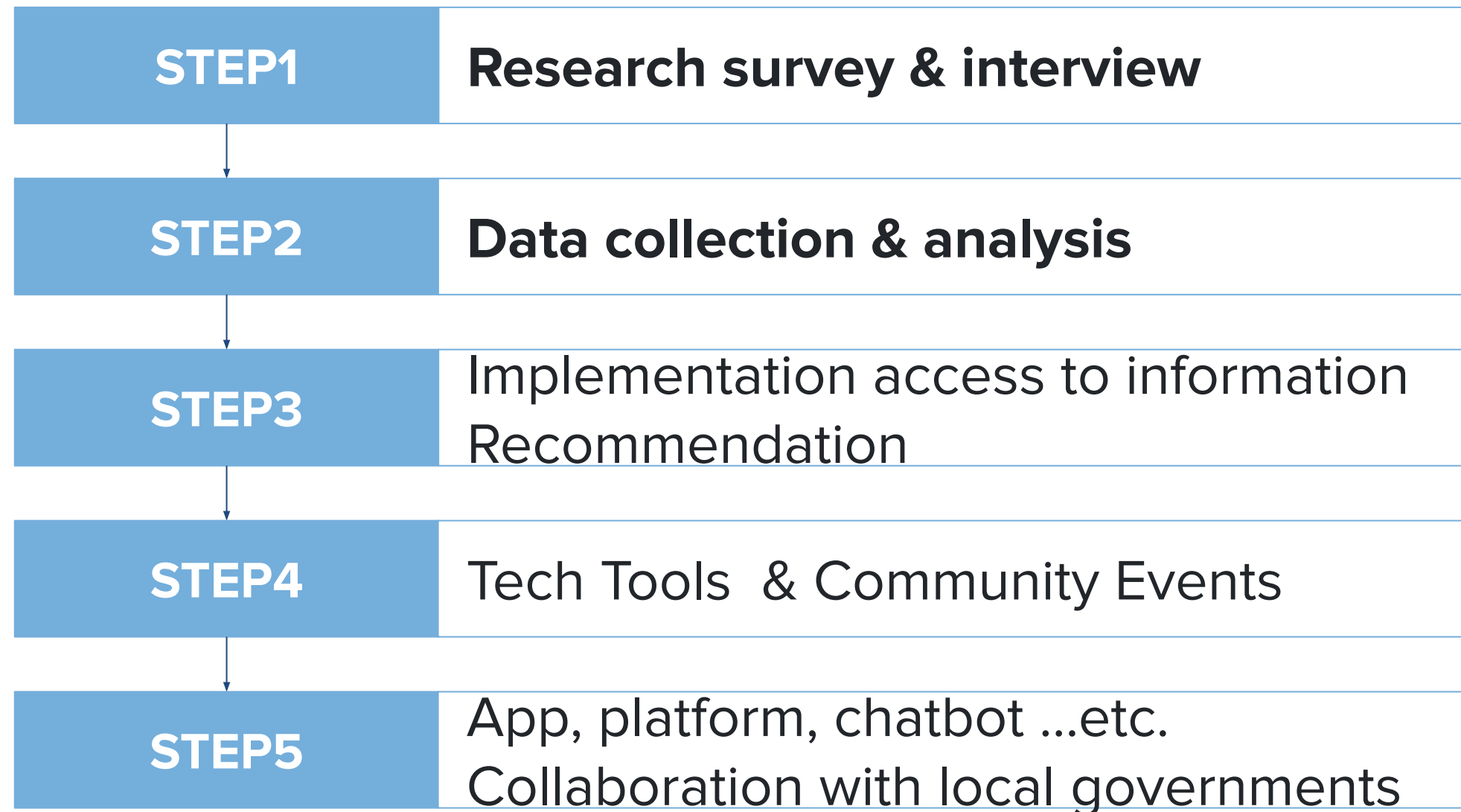




milestone

start from the interviews in Tokyo and Bangalore

using technology and make cross culture impact



step1 & step2

Research survey & interview

Data collection and analysis



Bangalore(IND)

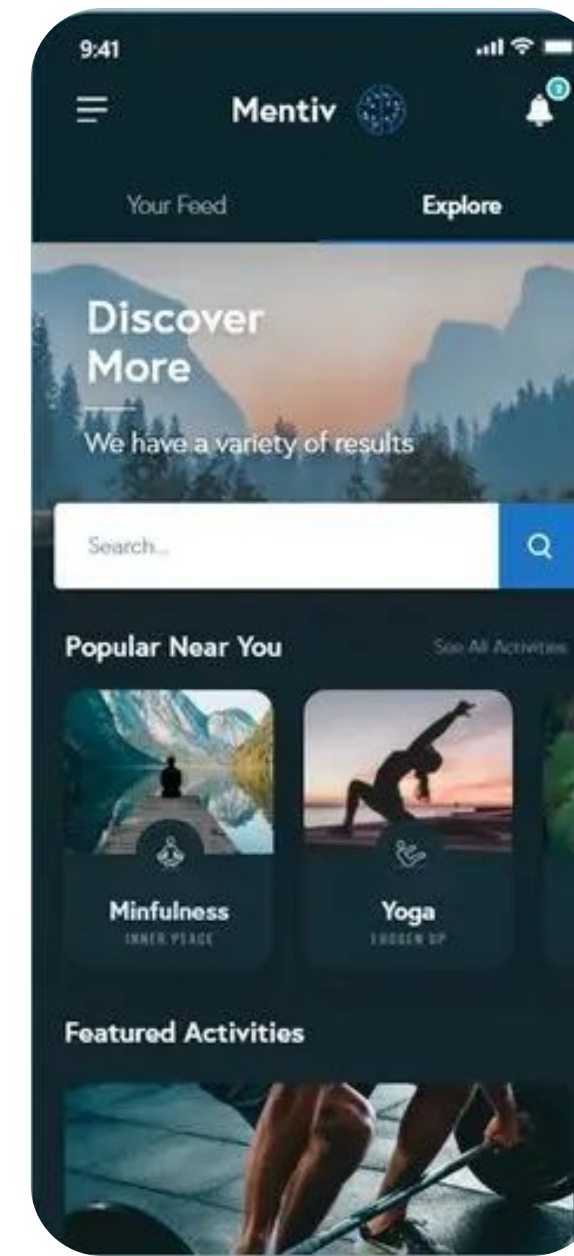
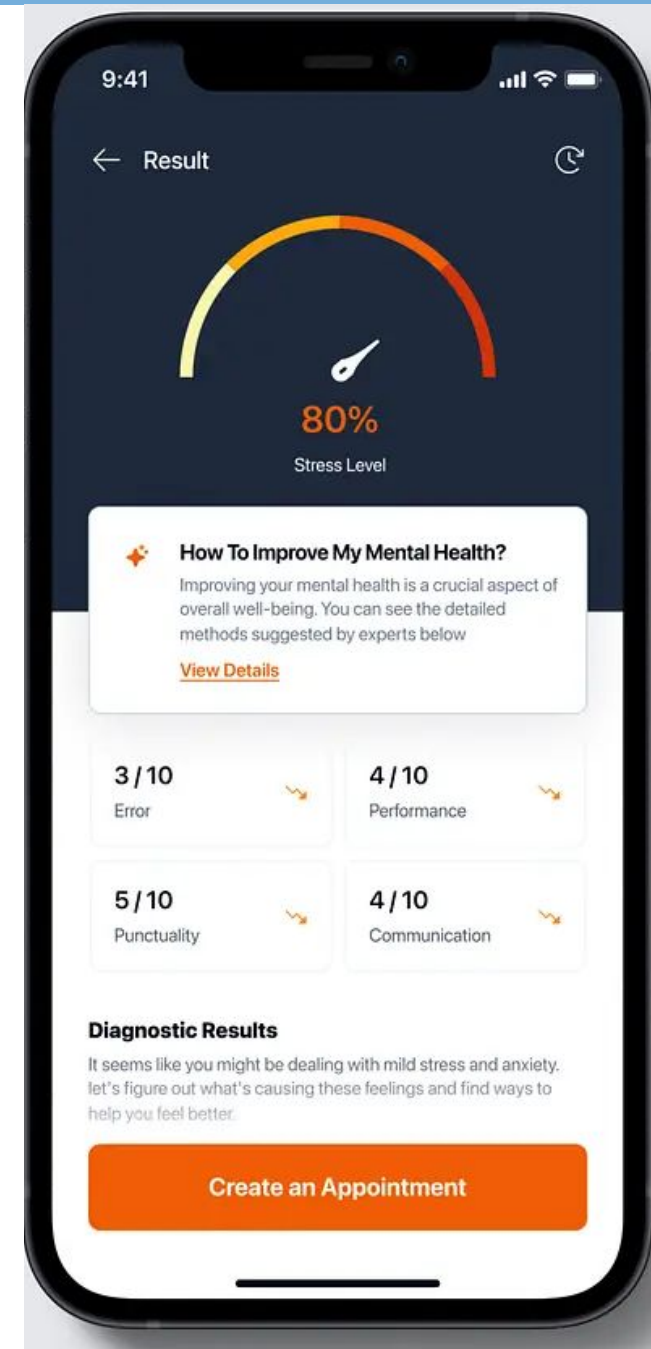
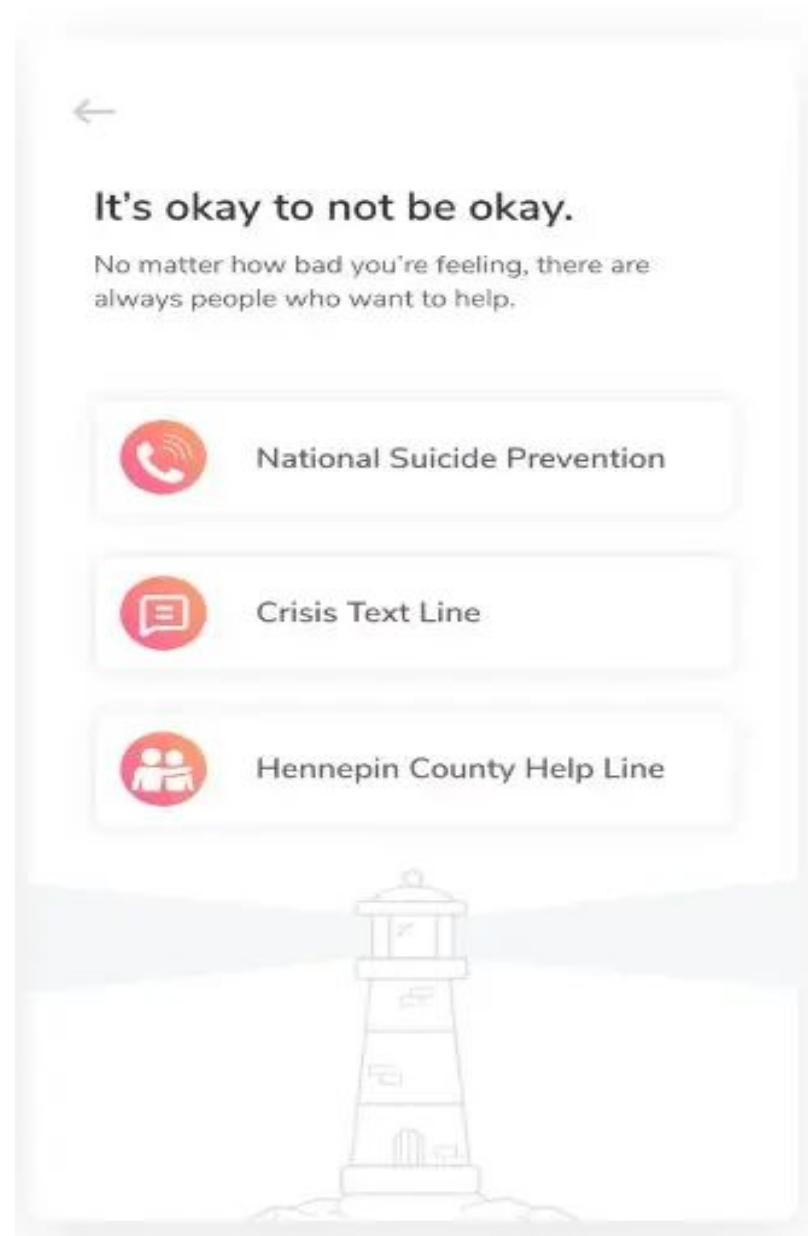


Tokyo(JPN)



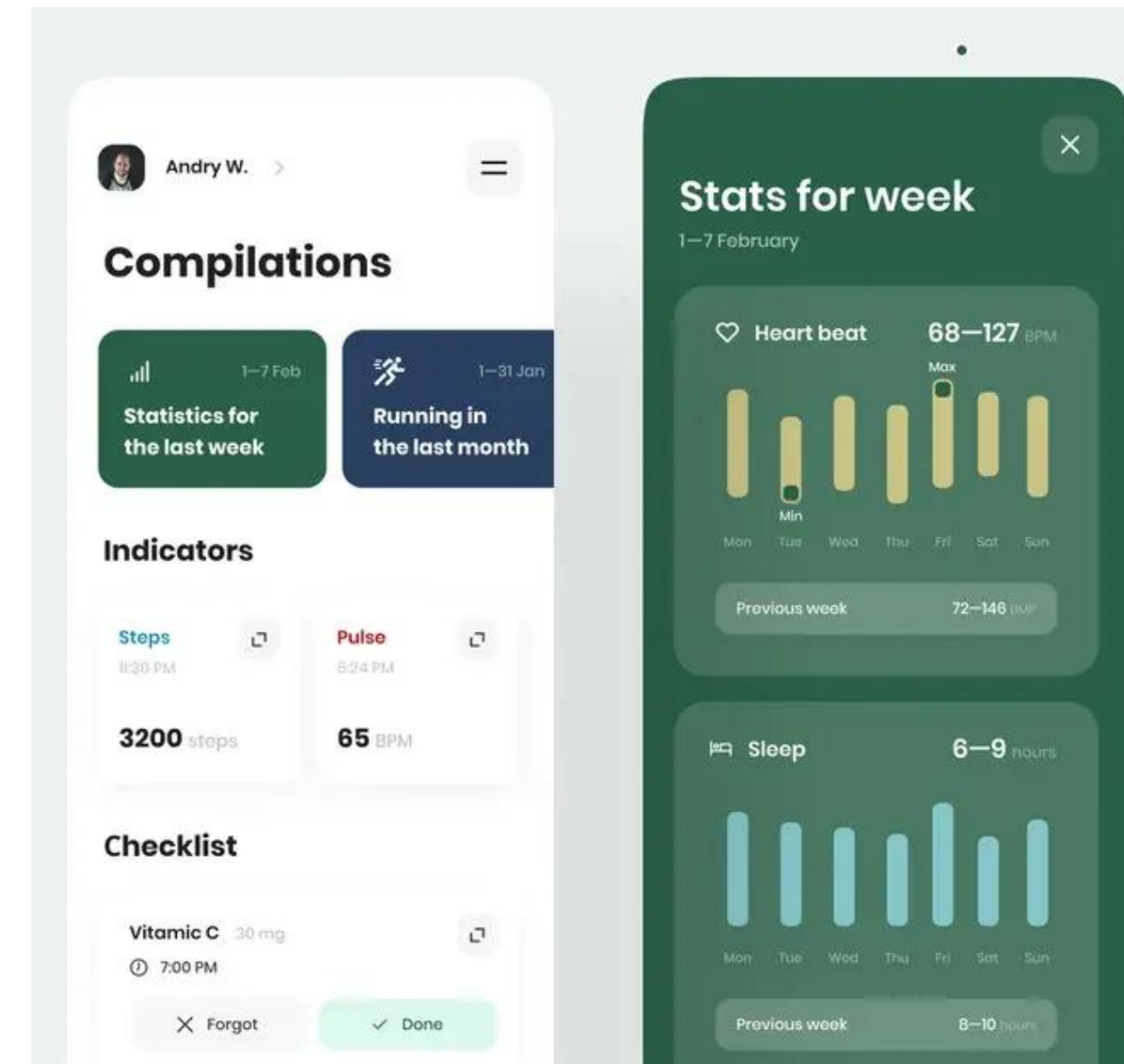
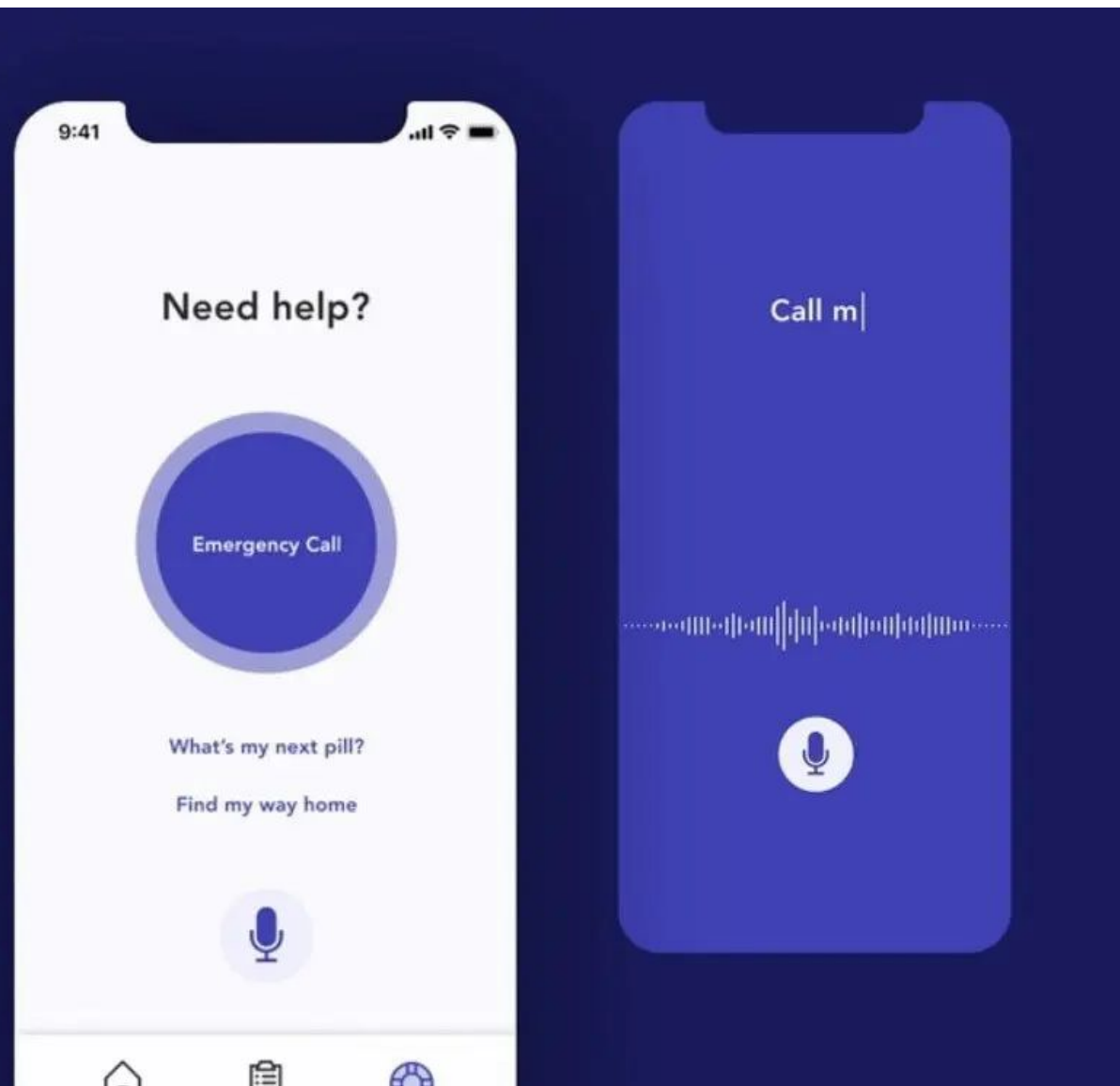
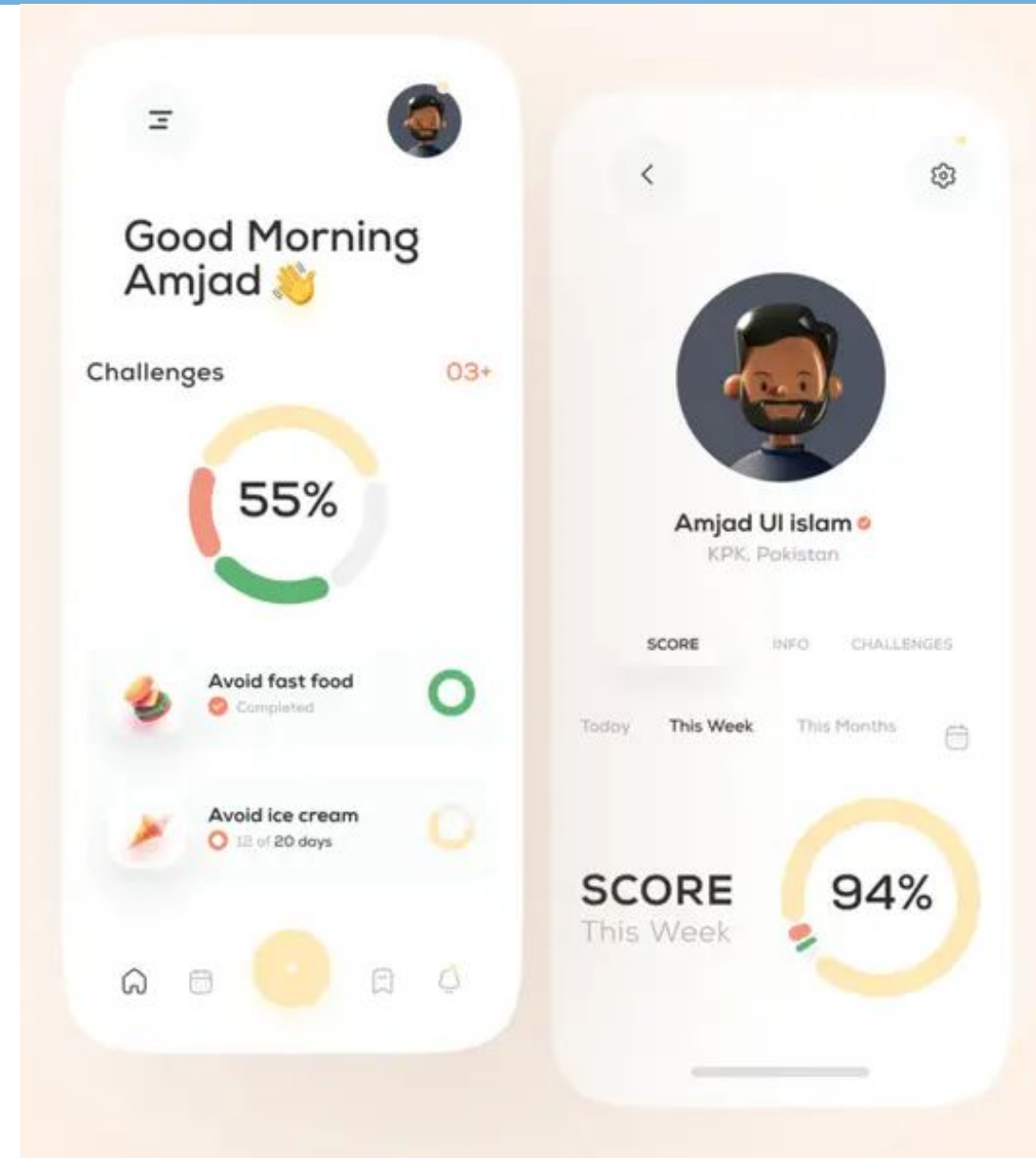
step 3

Implementation access to information
Recommendation



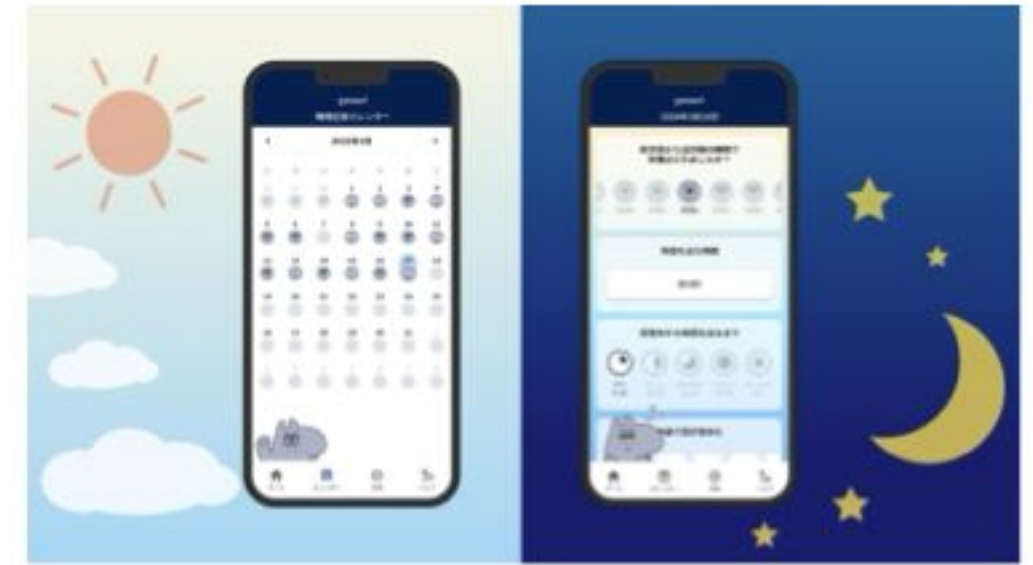
step 4 & 5

Tech Tools & make interactive support



Support

- Mental health experts and Psychologists
- Inclusion methodologies
- Data analysts
- Smart cities – partnership and collaboration with government



Thank you :)

Meghana, Mamie, Ram,
Morgan, and Shiv



Pre-programme progress

from Mamie



Joint Research with Tsukuba Univ. and NCNP(National Center of Neurology and Psychiatry)

from 2022 to 2024

- Development of a research tool for remote assistance to people with sleep-related symptoms.
 - Transform the world-standard sleep record form from paper to digital app.
 - Additional output functionality to allow patients to share entered data with counsellors and doctors
 - Multilingual support for English, Taiwanese Chinese and Korean.

誰一人取り残さない支援を目指す

フォーマットのデジタル化、
データ共有、市民参加型研究の推進

従来の記録用紙からの変化

- ①記入しやすい・簡単
- ②睡眠リズムがわかりやすい
- ③動機づけの高まるデザイン性

スマートフォンなどでの入力による変化

- ①印刷・持ち運び・筆記不要
- ②長期的に記録を習慣化できる
- ③データを直接共有・分析可能に

Carney et al. (2012) の日本語訳

睡眠日誌		お名前							NO.
氏名		性別	年齢	職業	学歴	婚姻状況	家族構成	備考	
1. 寝付をした時刻 (起床から____時まで)		14~15時							
2. 睡眠を促すために飲んだ薬や物質		ビール 1缶							
3. 入浴時間 風呂を流して寝たつとした時刻		22:30							
4. 寝付くまでにかかった時間 (分)		30							
5. 夜中、目覚めてから寝付くまでにかかった時間(回数) (例: 起床に目覚めて2時間の覚醒を覚く)		60/2							
6. 覚醒時刻 (時、最終に目覚めた時刻)		5:30							
7. 朝、目覚めて布団を出るまでにかかった時間 (分)		60							
8. 起床時間 起床からの起床時刻		6:30							
9. 起床後 起床後から起床時刻までの時間		1 2 3 4 5 6 7 8 9 10	1						
10. 夜間 起床後から起床時刻までの時間		1 2 3 4 5 6 7 8 9 10	4						
11. 床の上時間 入浴前～起床時刻		480分	30	30	30	30	30	30	30
12. 半醒時間 床の上で起きていた時間 (4+5+7)		150分	30	30	30	30	30	30	30
13. 睡眠時間 11時～起床～12時間の時間		330分	30	30	30	30	30	30	30
14. 睡眠効率 13.睡眠時間÷11.床の上時間×100		68%	%	%	%	%	%	%	%

世界基準の既存の睡眠記録用紙

睡眠記録シート

睡眠記録アプリ

Post-programme progress

from Mamie



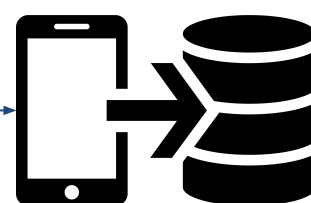
Joint Research with Tsukuba Univ. and Kansai Univ.

from 2024 to 2026

Consideration of indicators specific to childcare depression.



Data collection via apps or web-site.



アプリやウェブでデータを収集

Supplementary objective indicators from IoT devices.



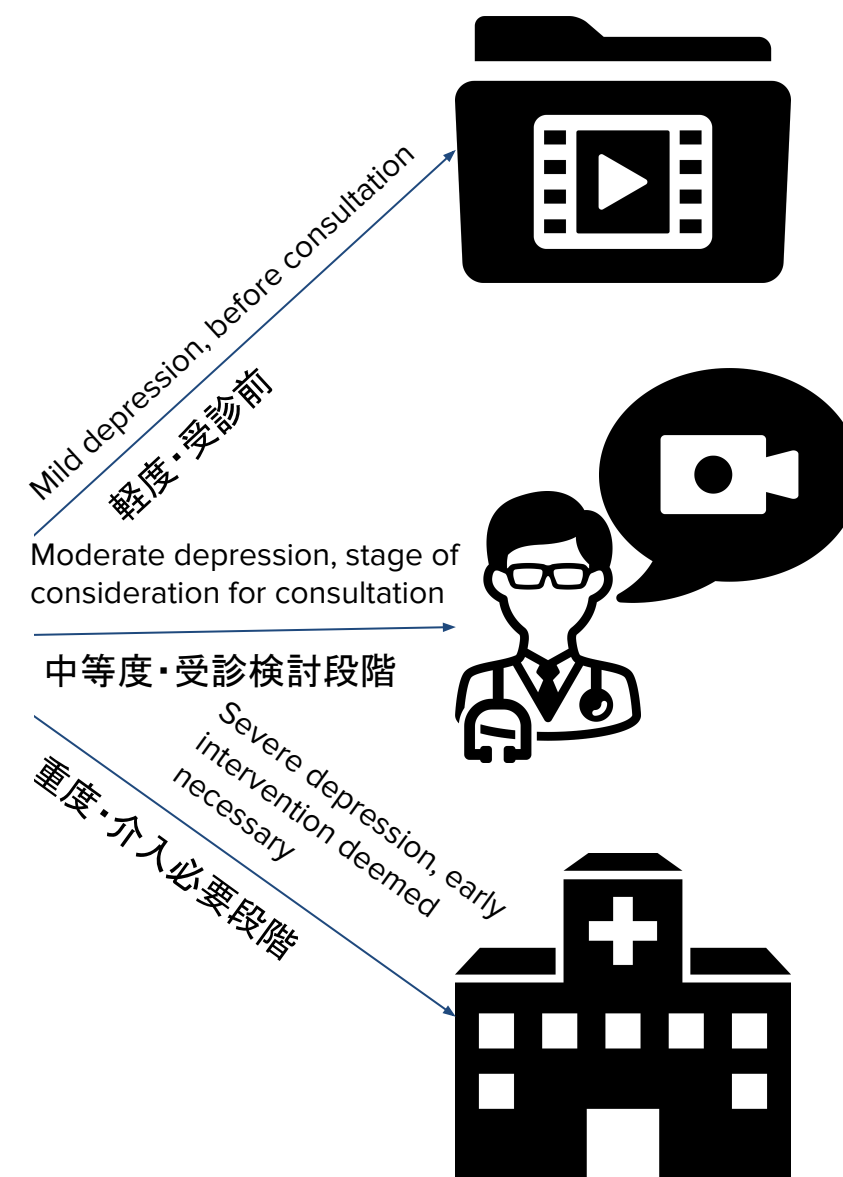
IoTデバイスで客観指標を追加

- 育児バーンアウト
- 育児困難感
- 不眠度合い

...etc.

<https://www.burnoutparental.com/international-consortium>

<https://wpi-iiis.tsukuba.ac.jp/research/member/detail/shunnakajima/>
https://researchmap.jp/kaichiro_furutani



Self-care / セルフケア

- Lecture on how to use the tools
/各種ツールの使い方レクチャー
- Basic training (video)
/基礎講習(動画)

Online consultations & parent training

- /オンライン診察・ペアトレ
- Remote counselling by doctors, psychologists and counsellors
/医師・心理師・カウンセラーによる遠隔カウンセリング
- Lecture- and workshop-based guidance
/講義・ワークショップ型の指導

Neighbouring specialist institutions Referrals /近隣専門機関リファー

- Signposting to institutions with specialists who can provide CBT (supplemented by remote assistance if travel is difficult).
/CBTができる専門家が在籍する機関へ案内(移動が困難な場合は遠隔支援で補う)