On the Road to a World Without Depression:

65 years and counting…

Symposium

Anticipate and Act:

Prevention in the Netherlands *and Beyond*

Ricardo F. Muñoz, Ph.D.

Professor of Psychology, Emeritus, University of California, San Francisco

Distinguished Professor Emeritus, Palo Alto University

Disclosures

Conflict of interests	None
Relevant relationship with companies	No relationships with companies
• Sponsoring or research grants	Our research has been supported by: • The National Institute of Mental Health (USA) • The Tobacco-Related Disease Research Program of the State of California • A Google AdWords grant • The Brin/Wojcicki Foundation

Main Points

- In terms of knowledge, we are halfway down to the road to prevent and treat major depression
- In terms of practice, we are barely getting started
- We need to:
  - implement current knowledge
  - add to our current knowledge and
  - embed this knowledge into policy and practice

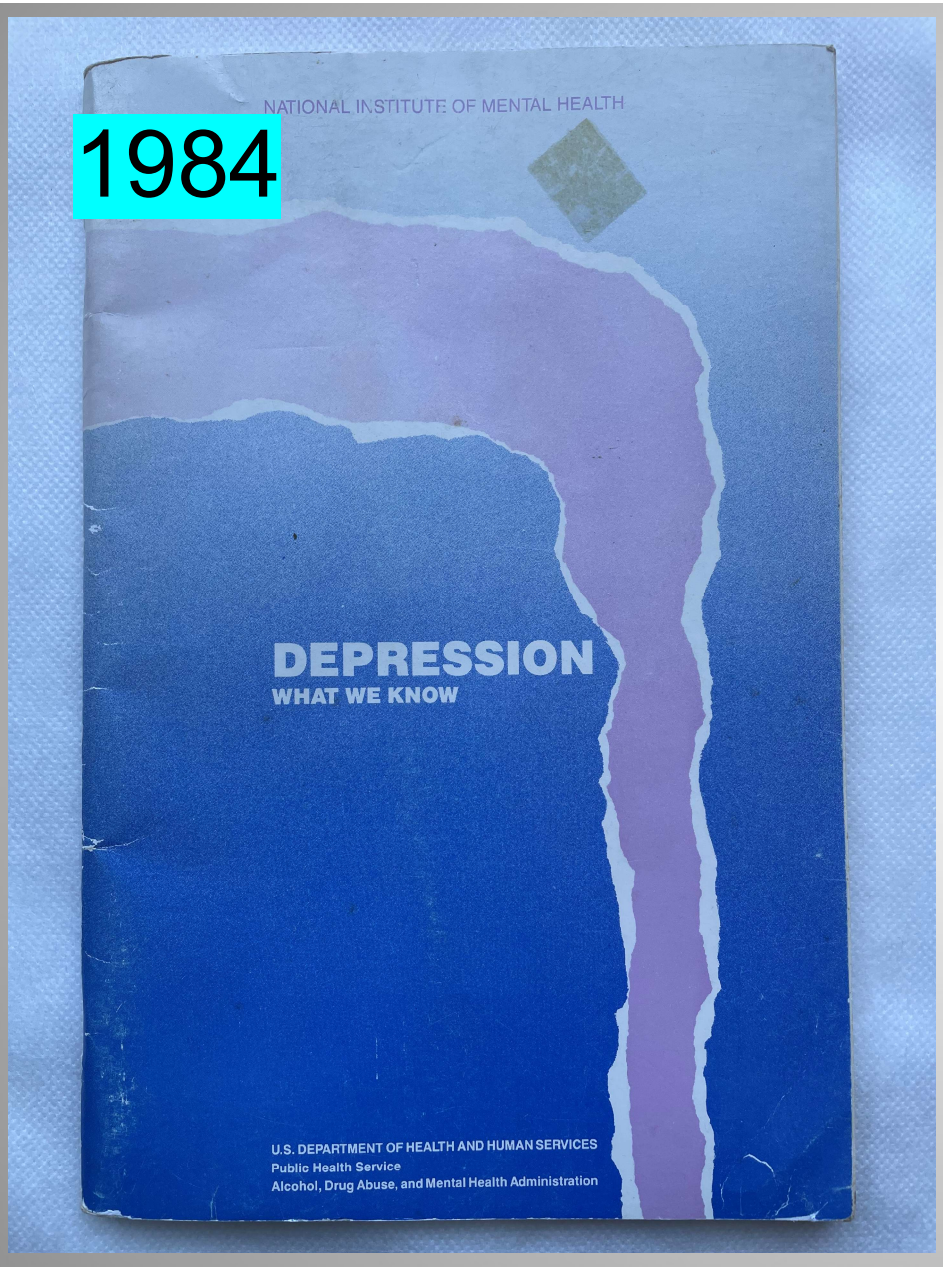
The goal of prevention

Starting on the road to prevention

September 1972 -

The concept of prevention

The University of Oregon



"In general, the onset of a clinical depression cannot be prevented."

National Institute of Mental Health

Depression: What We Know
(Lobel & Hirschfeld, 1984, p. 4)

2012

Major Depression Can Be Prevented

Ricardo F. Muñoz — *University of California, San Francisco/San Francisco General Hospital*

William R. Beardslee — *Harvard Medical School/Children's Hospital Boston*

Yan Leykin — *University of California, San Francisco*

American Psychologist, 2012, 67 (4), 285–295

Does Prevention Work?

- 1967: *"What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?" (Gordon Paul)*

Does Prevention Work?

- 1967: *"What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?" (Gordon Paul)*
- *2025:* Which preventive interventions,
- provided by whom,
- in which modalities (in person, self-help, social and community projects),
- are effective for which populations,
- for which specific mental, emotional, and behavioral conditions, and
- under which historical circumstances?

Articles

2024 – Lancet Psychiatry

Psychological interventions to prevent the onset of major depression in adults: a systematic review and individual participant data meta-analysis

30 RCTs; 7201 participants

Claudia Buntrock, Mathias Harrer, Antonia A Sprenger, Susan Illing, Masatsugu Sakata, Toshi A Furukawa*, David D Ebert†, Pim Cuijpers*†, on behalf of the IPD-PrevDep Consortium‡

(which includes 36 others)

Lancet Psychiatry 2024; 11: 990–1001

See Comment page 947

*Toshi Furukawa and Pim Cuijpers are retired

Summary

Background Psychological interventions are increasingly discussed as a method to prevent major depressive disorder (MDD) in adults who already experience subthreshold depressive symptoms. In this individual participant data meta-analysis, we quantify the effect of preventive interventions against control on MDD onset in this population, and explore effect modifiers.

>>"…interventions reduced the incidence of depression by 43%, 42%, and 33%, [at post, 6 months,and 12 months] respectively, compared with control."
(Page 996).

BJPsych | The British Journal of Psychiatry (2025)
1–14. doi: 10.1192/bjp.2025.56

2025 - BJPsych

Review

Psychological intervention in individuals with subthreshold depression: individual participant data meta-analysis of treatment effects and moderators

Mathias Harrer, Antonia A. Sprenger, Susan Illing, Marcel C. Adriaanse, Steven M. Albert, Esther Allart, Osvaldo P. Almeida, Julian Basanovic, Kim M. P. van Bastelaar, Philip J. Batterham, Harald Baumeister, Thomas Berger, Vanessa Blanco, Ragnhild Bø, Robin J. Casten, Dicken Chan, Helen Christensen,

50 RCTs;
10,671 participants

"Conclusions:
Psychological intervention reduces the symptom burden in individuals with subthreshold depression up to 1 year…
We find strong support for intervention in subthreshold depression, particularly with PHQ-9 scores ≥ 10. For very mild symptoms, *scalable treatments could be an attractive option*."

AMERICAN PSYCHOLOGICAL ASSOCIATION

American Psychologist 2025

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ISSN: 0003-066X

2025, Vol. 80, No. 3, 297–310
https://doi.org/10.1037/amp0001250

Five Decades of Research on Psychological Treatments of Depression: A Historical and Meta-Analytic Overview

562 RCTs; 66,361 patients

Pim Cuijpers[1, 2], Mathias Harrer[3], Clara Miguel[1], Marketa Ciharova[1], and Eirini Karyotaki[1]

- "*...format [individual, group, guided self-help] was not associated with large differences in effect sizes… This is encouraging because* ***digital interventions typically require fewer resources.***
- *…no significant association between number of sessions and the effect size.*
- *…it can be safely assumed that therapies are effective across the world. Considering the enormous disease burden of depression across the world,* ***more research on how these therapies can be disseminated broadly across non-Western countries is certainly warranted."*** *(Page 308)*

Annual Review of Clinical Psychology

Realizing the Mass Public Benefit of Evidence-Based Psychological Therapies: The IAPT Program

David M. Clark

Oxford Centre for Anxiety Disorders and Trauma, Department of Experiment
University of Oxford, OX1 1TW Oxford, United Kingdom; email: david.clark

Annu. Rev. Clin. Psychol. 2018. 14:159

IAPT:
Improving Access to Psychological Therapies

2016-2017: 50% of patients recovered

(About 66% improved significantly)

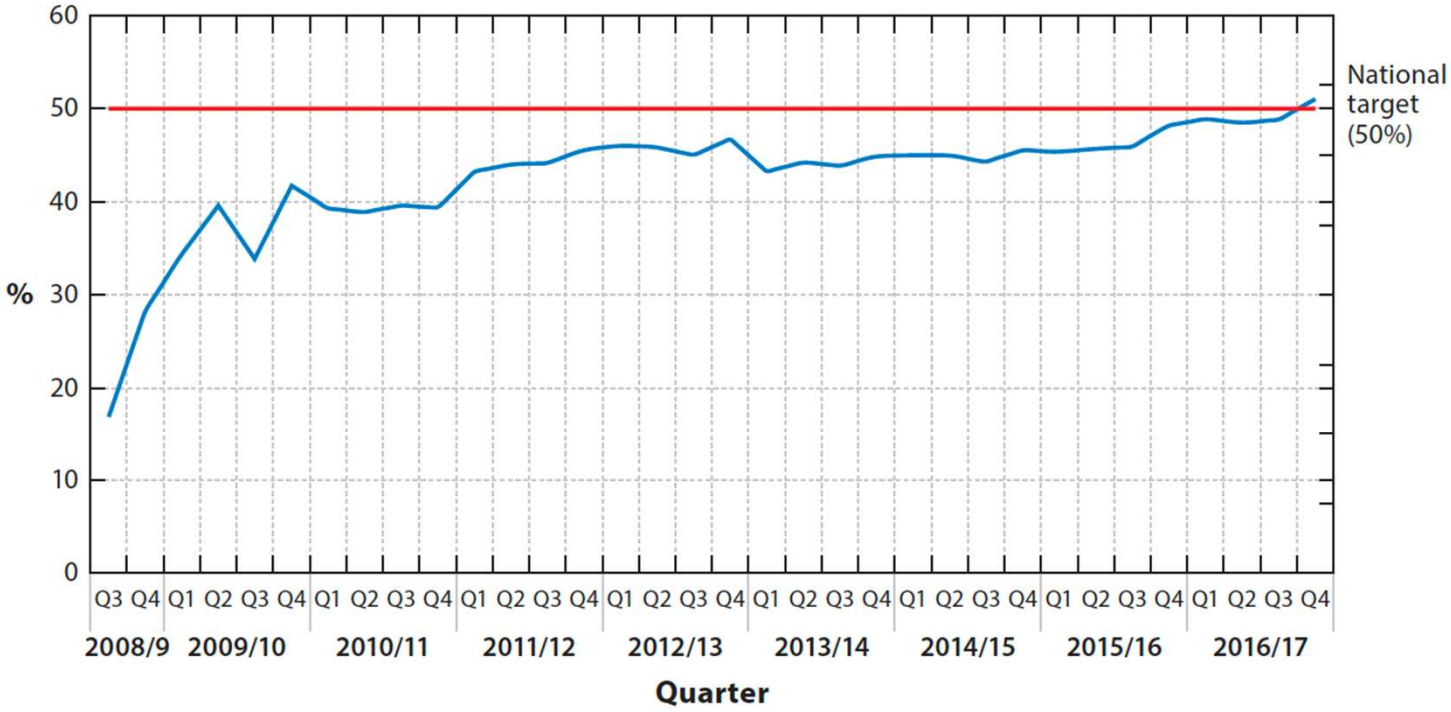
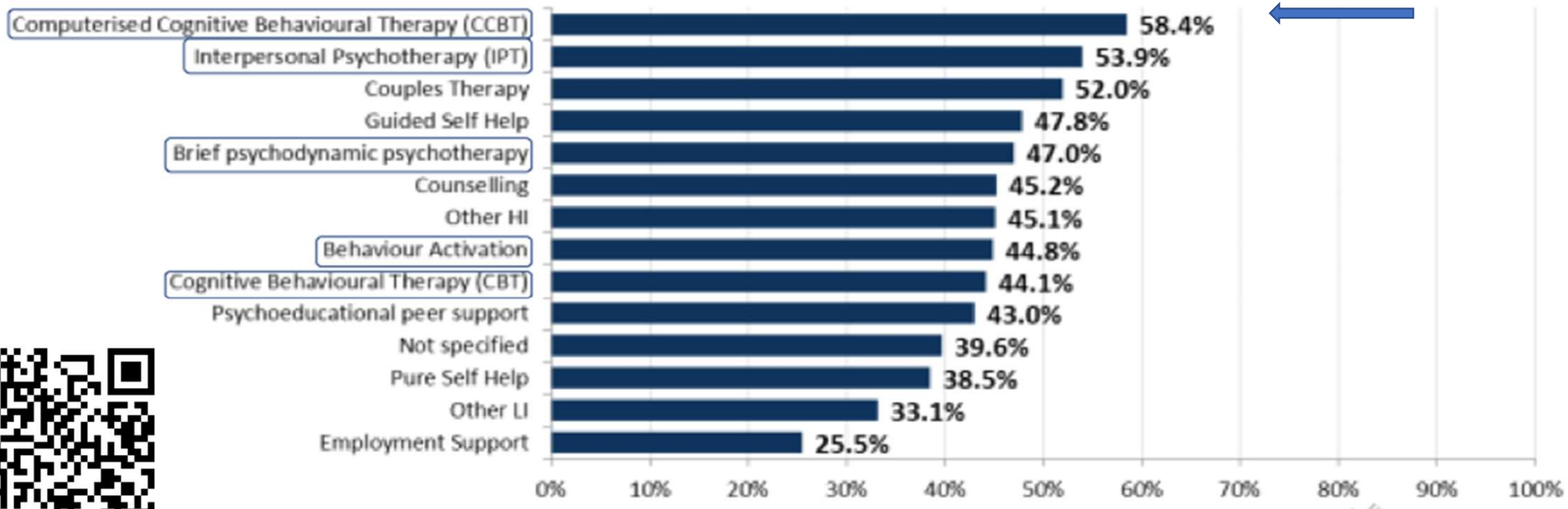


Figure 2

IAPT national recovery rate each three months (quarter) for people finishing a course of treatment (two or more sessions).

The effectiveness of psychological interventions in routine care seems to hover around 50%

Figure 3: Recovery rates by therapy type for referrals with a problem descriptor of depression, 2014/15[23] **(Based on 1,267,193 referrals; 468,881 finished treatment)**



Psychological Therapies; Annual Report on the use of IAPT services: England 2014/15

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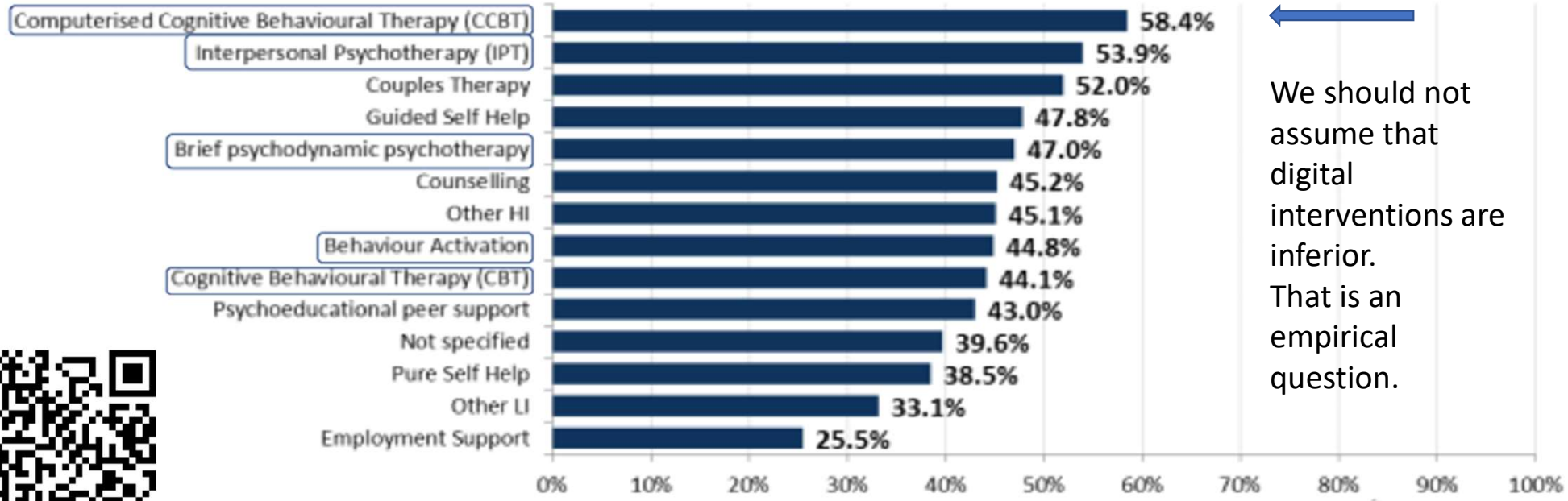

We should not assume that digital interventions are inferior.
That is an empirical question.

Psychological Therapies; Annual Report on the use of IAPT services: England 2014/15

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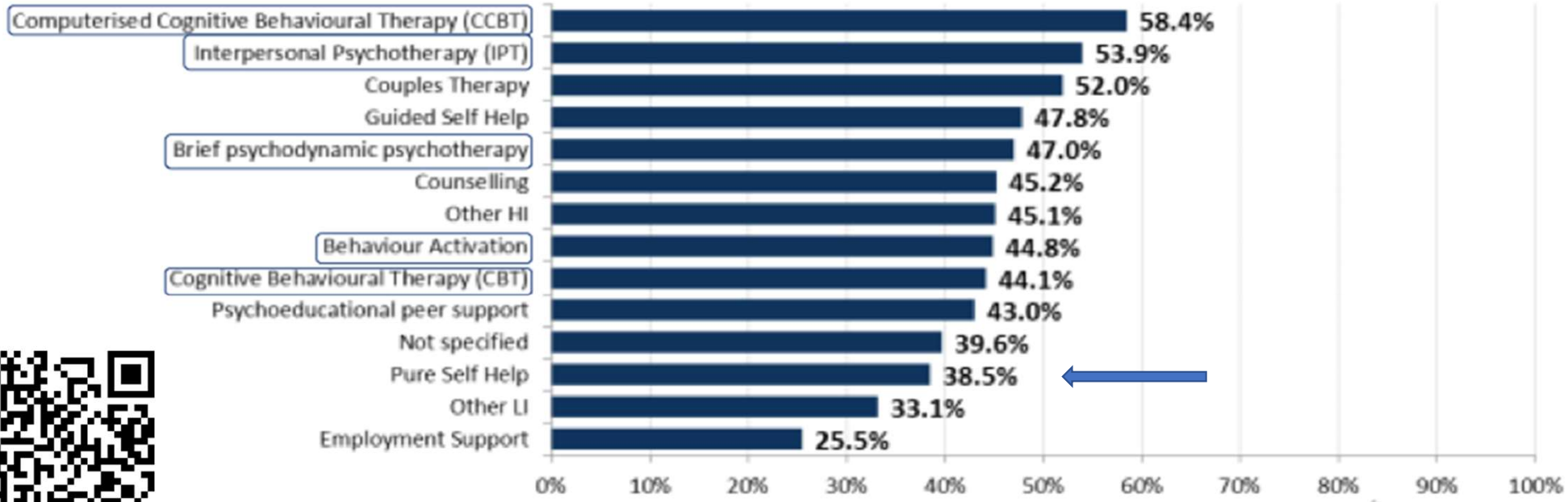

Psychological Therapies; Annual Report on the use of IAPT services: England 2014/15

The U.S. Preventive Services Task Force

JAMA. 2019;321(6):580-587.

JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Interventions to Prevent Perinatal Depression
US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

IMPORTANCE Perinatal depression, which is the occurrence of a depressive disorder during pregnancy or following childbirth, affects as many as 1 in 7 women and is one of the most common complications of pregnancy and the postpartum period. It is well established that perinatal depression can result in adverse short- and long-term effects on both the woman and child.

OBJECTIVE To issue a new US Preventive Services Task Force (USPSTF) recommendation on interventions to prevent perinatal depression.

CONCLUSIONS AND RECOMMENDATION The USPSTF recommends that clinicians provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions. (B recommendation)

O'Connor et al. (2019)
JAMA. 2019;321(6):588-601.

Table 2. Summary of Pooled Effects of Subgroup Analyses for Counseling Interventions, Organized by Counseling Approach

Counseling Approach	No. of Studies (No. of Participants)	Pooled RR (95% CI)	I^2, %	τ^2
All counseling trials	17 (3094)	0.61 (0.47-0.78)	39	0.09
CBT	8 (2128)	0.51 (0.33-0.79)	49	0.17
CBT Moms and Babies Program	4 (325)	0.47 (0.26-0.84)	0	0.0
IPT	8 (2095)	0.71 (0.50-1.00)	42	0.09
IPT ROSE program	5 (464)	0.50 (0.32-0.80)	12	0.04
All counseling trials, limited to trials targeting women at increased risk of perinatal depression	14 (1411)	0.55 (0.44-0.68)	0	0.0

1 – Pooled RR = Reduction in incidence

1 – 0.61 = 39% reduction in incidence across all trials

O'Connor et al. (2019)
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1 – Pooled Risk Ratio = Reduction in incidence

1 – 0.47 = 53% reduction in incidence for CBT Mothers and Babies Course

1 – 0. 50 = 50% reduction in incidence for IPT ROSE program

The Mothers and Babies Course in Tanzania and Kenya

Play 0:39 – 1:24

https://youtu.be/q9sPWkEpWs8

International Journal of
Environmental Research and Public Health

MDPI

Article

Long-Term Effects of a Cognitive Behavioral Conference Call Intervention on Depression in Non-Professional Caregivers

Lara Lopez [1,*], Fernando L. Vázquez [1], Ángela J. Torres [2], Patricia Otero [3], Vanessa Blanco [4] Olga Díaz [1] and Mario Páramo [2]

[1] Department of Clinical Psychology and Psychobiology, University of Santiago de Compostela, 15782 Santiago de Compostela, Spain; fernandolino.vazquez@usc.es (F.L.V.);

Incidence at 36 months

CBCC: Cognitive-Behavioral Conference Call = 8.7%

BACC: Behavioral Activation Conference Call = 8.6%

CG: Usual Care Control Group = 33.7%

"Regarding the RR and NTT indicators, at 36 months of follow-up, the RR for CBCC was 8.7/33.8 = 0.26 (95% CI 0.11, 0.59) and the NTT was ˜4; the RR for BACC was 8.6/33.8 = 0.25 (95% CI 0.11, 0.58) and the NTT was ˜4." (Page 13 of 24)

1 – RR = reduction in incidence, so 1 - .25 = 75% reduction of new episodes of mayor depression.

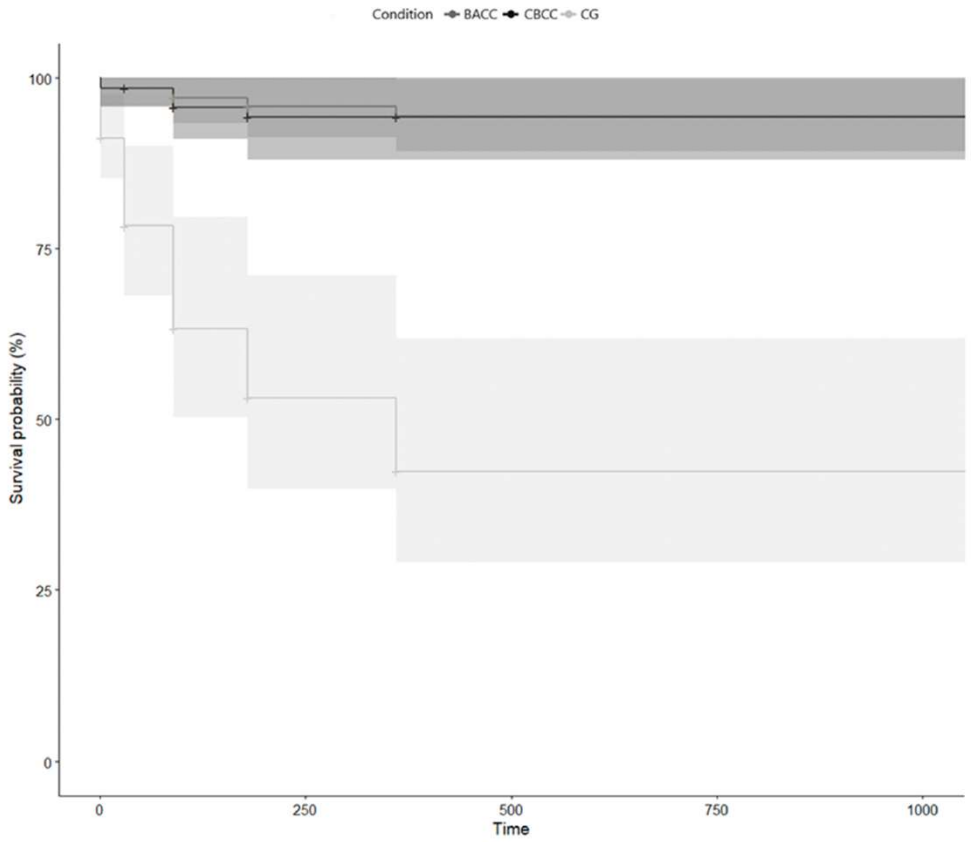


Figure 3. Cumulative survival for recurring events for the different experimental conditions.

JAMA Psychiatry | Original Investigation

Prevention of Incident and Recurrent Major Depression in Older Adults With Insomnia

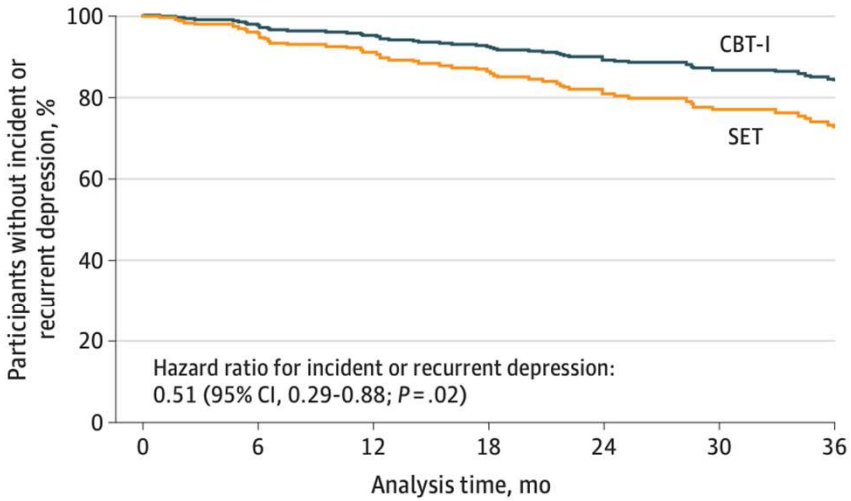
A Randomized Clinical Trial

Michael R. Irwin, MD; Carmen Carrillo, MA, MHS; Nina Sadeghi, BS; Martin F. Bjurstrom, MD; Elizabeth C. Breen, PhD; Richard Olmstead, PhD

JAMA Psychiatry.
doi:10.1001/jamapsychiatry.2021.3422
Published online November 24, 2021.

CBT-I: Cognitive Behavioral Therapy for Insomnia
SET: Sleep Education Therapy

Figure 2. Time to Incident or Recurrent Depression Event by Treatment Group



No. at risk							
CBT-I	156	129	123	116	92	88	81
SET	135	128	123	120	86	82	77

Older adults without depression but with insomnia were randomized to receive cognitive behavioral therapy for insomnia (CBT-I) or sleep education therapy (SET).

New episodes:
CBT-I: 12.2%
SET: 25.9%

The CBT-I condition prevented more than 50% of new episodes.

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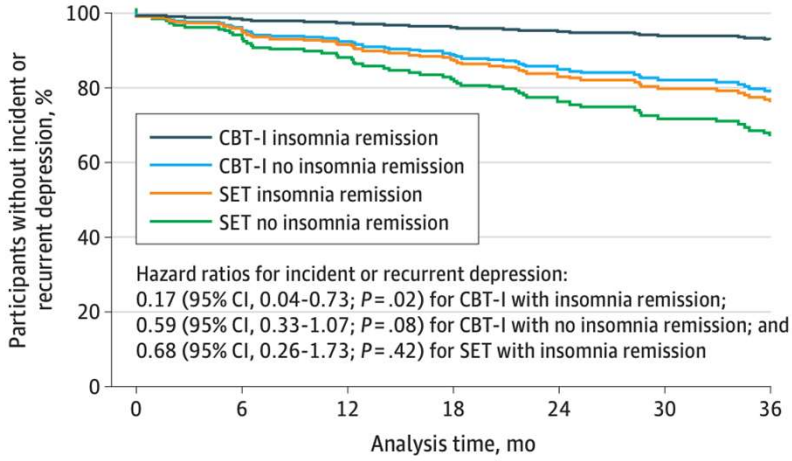
CBT-I: Cognitive Behavioral Therapy for Insomnia
SET: Sleep Education Therapy

"Those in the CBT-I group with sustained remission of insomnia disorder had an 82.6% decreased likelihood of depression (hazard ratio, 0.17; 95%, CI 0.04-0.73; P = .02) compared with those in the SET group without sustained remission of insomnia disorder." [Page E1]

Figure 4. Time to Incident or Recurrent Depression Event by Treatment Group, Stratified by Sustained Remission of Insomnia Disorder



No. at risk							
CBT-I insomnia remission	41	37	34	30	24	22	0
CBT-I no insomnia remission	115	92	89	86	68	66	0
SET insomnia remission	26	25	24	24	15	15	0
SET no insomnia remission	109	103	99	96	71	67	0

Consumable vs Nonconsumable Interventions

Consumable

- Consumable interventions are “used up” (consumed) when they are administered:
  - Medications
  - Therapy sessions (when administered in person)
  - Preventive interventions (with human providers)

Nonconsumable

- Nonconsumable interventions can be administered again and again without losing their therapeutic power
  - Digital interventions are nonconsumable
  - They can be used any time, anywhere, ideally at no charge to recipients

Consumable vs Nonconsumable Interventions

Consumable

- Cost more
- Should be used primarily for indicated interventions
- For individuals at imminent predictable risk of onset of a depressive episode
- Requires screening for risk

Nonconsumable

- Cost much less
- Should be used primarily for selective and universal interventions
- For groups at higher risk than the general population
- For the general population

Consumable vs Nonconsumable Interventions

Consumable

- Individual interventions
- Group interventions
- Peer support
- Warm lines
- Crisis lines
- Guided self-help
- ***Whenever human time is involved***

Nonconsumable

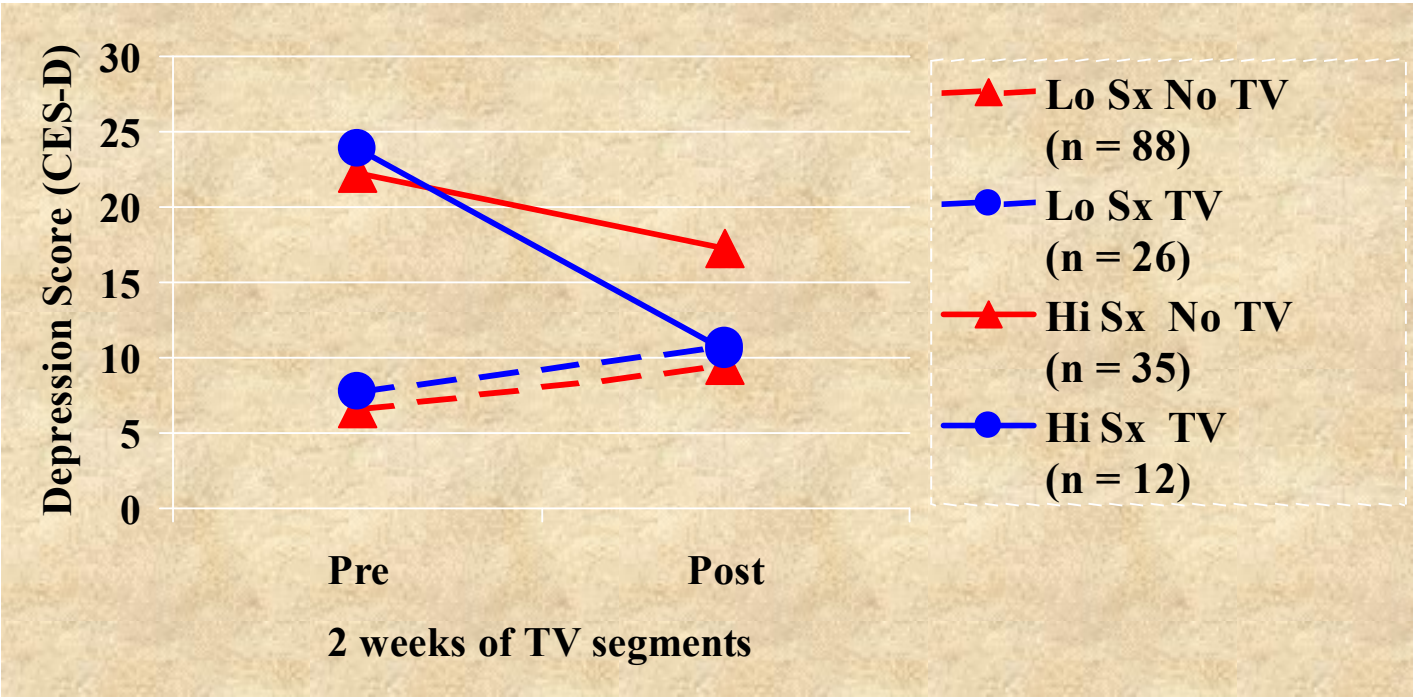
- Websites
- Mobile apps
- Chatbots
- ***Automated*** text messaging programs
- Online videos (for non-readers)
- Online self-help printed matter
- AI-supported online tools

On Harnessing Psychology and Technology to reach the world with Nonconsumable Interventions

- Mass media as a tool to reach large numbers of people
- Digital interventions to reach people worldwide

1978

TV mood management segments reduce symptoms of depression

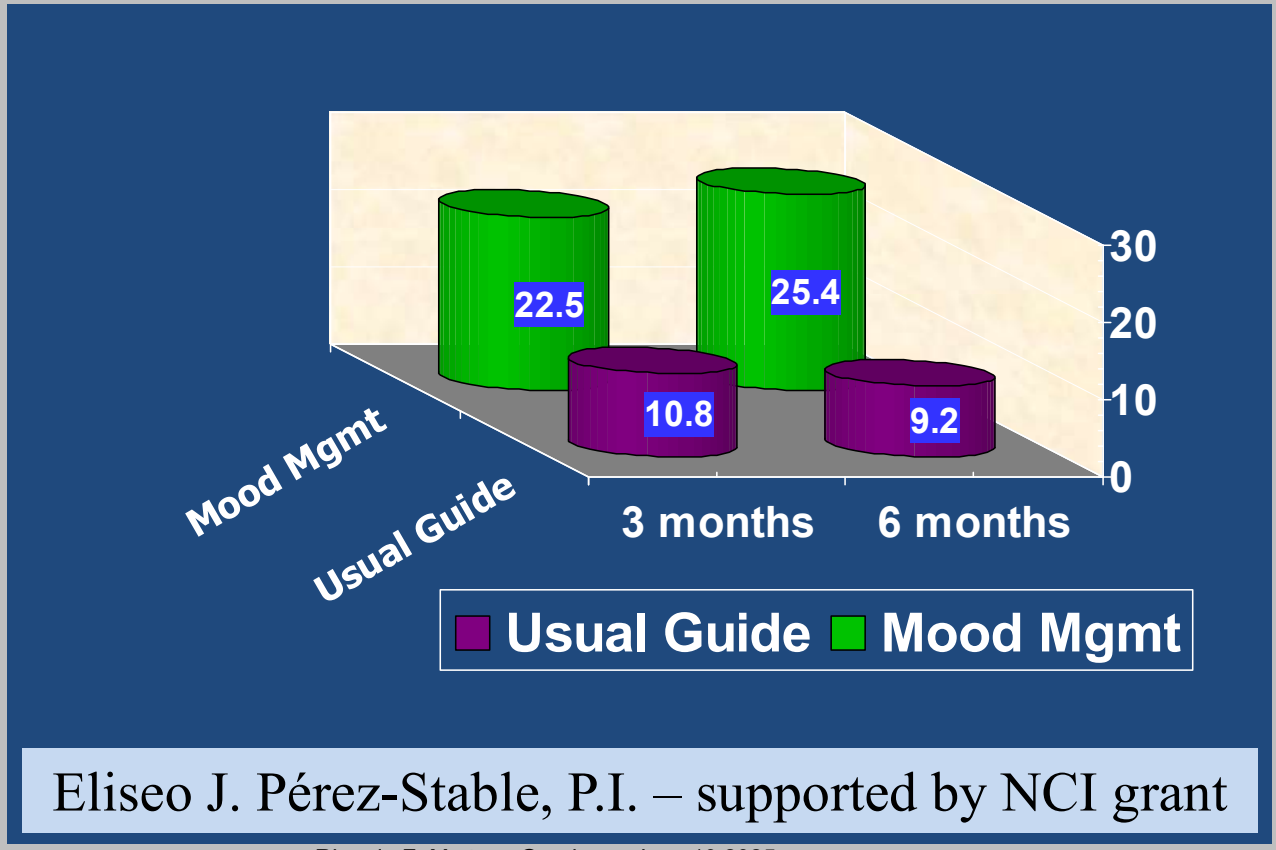


Muñoz, Glish, Soo-Hoo, & Robertson, 1982 (AJCP)

1997

“Tomando Control de su Vida” (TC1)

Abstinence rates for randomized control trial on smoking cessation conducted in Spanish via the mail



Eliseo J. Pérez-Stable, P.I. – supported by NCI grant

Smoking Cessation Rates

Could an Internet intervention yield comparable results?

4-8% for placebo patches

14-22% at 6 months for the nicotine patch

24-27% at 6 months for smoking cessation groups

Can Web-based smoking cessation interventions match the patch?

Proof of concept:
The San Francisco Stop Smoking Internet Project:
www.stopsmoking.ucsf.edu &
www.dejardefumar.ucsf.edu

Can Web-based smoking cessation interventions match the patch?

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Every visitor to the site could download the Smoking Cessation Guide in Spanish or English >>>

Can Web-based smoking cessation interventions match the patch?

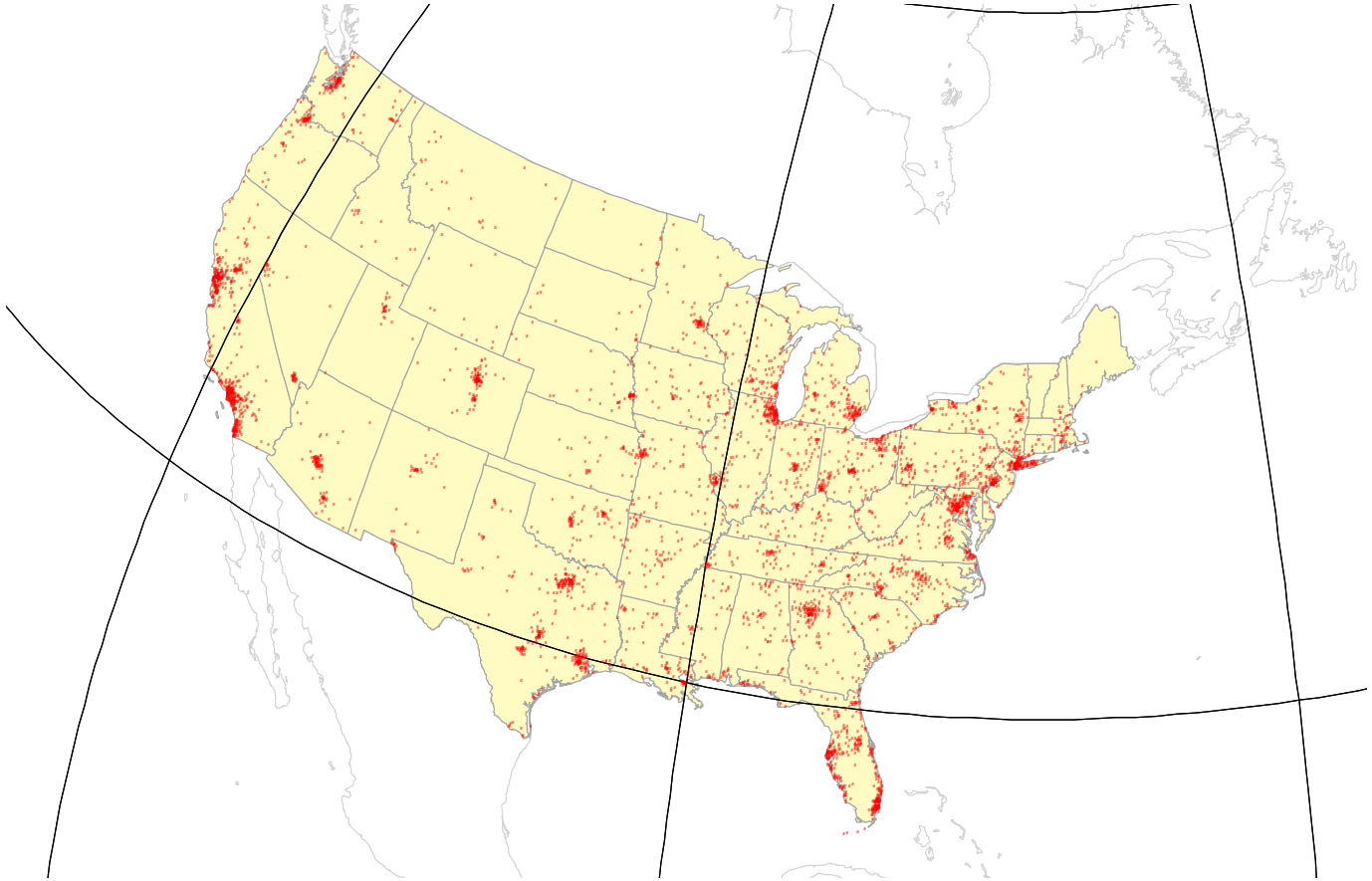
Proof of concept:
The San Francisco Stop Smoking Internet Project
(Using Missing = Smoking outcomes)

Best condition tested yields ***26% at 6 months*** for Spanish speakers (Muñoz et al., 2006)

12-month quit rates (Muñoz et al. 2009):
20% for Spanish speakers
21% for English speakers

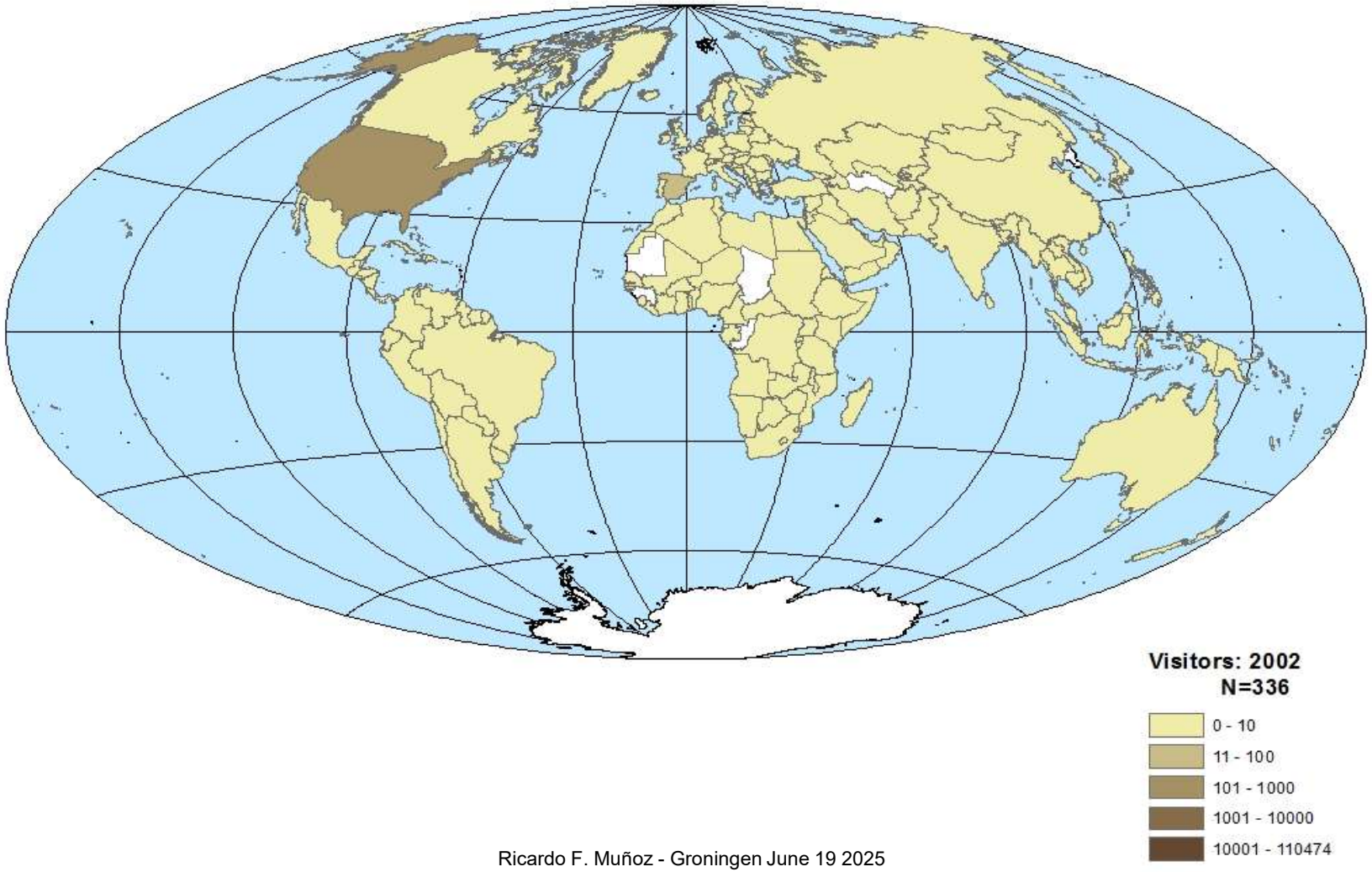
We were able to match the patch!

But the *reach* is remarkable…



US Distribution of TC2 & TC3 Respondents

Ricardo F. Muñoz - Groningen June 19 2025



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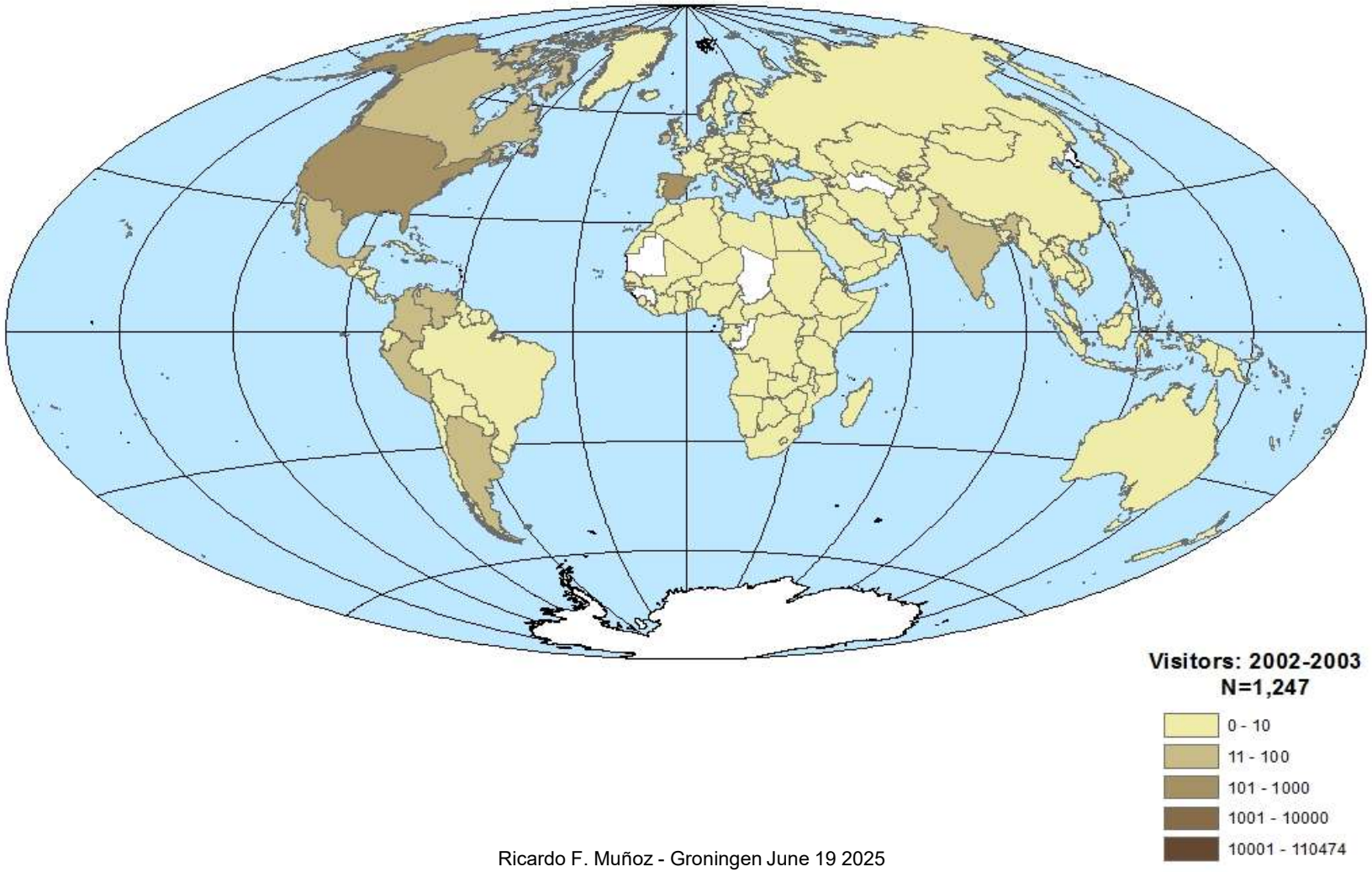

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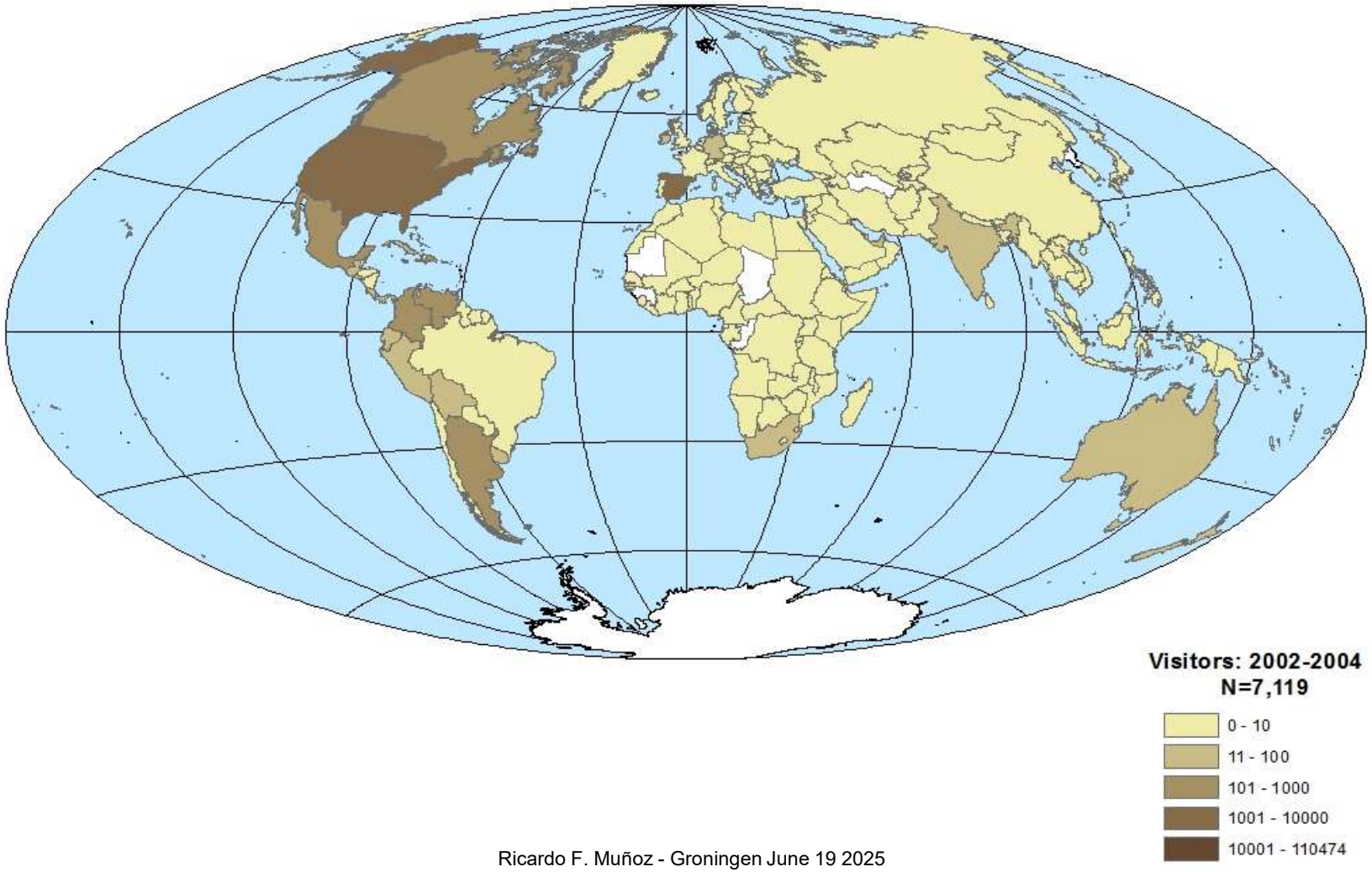

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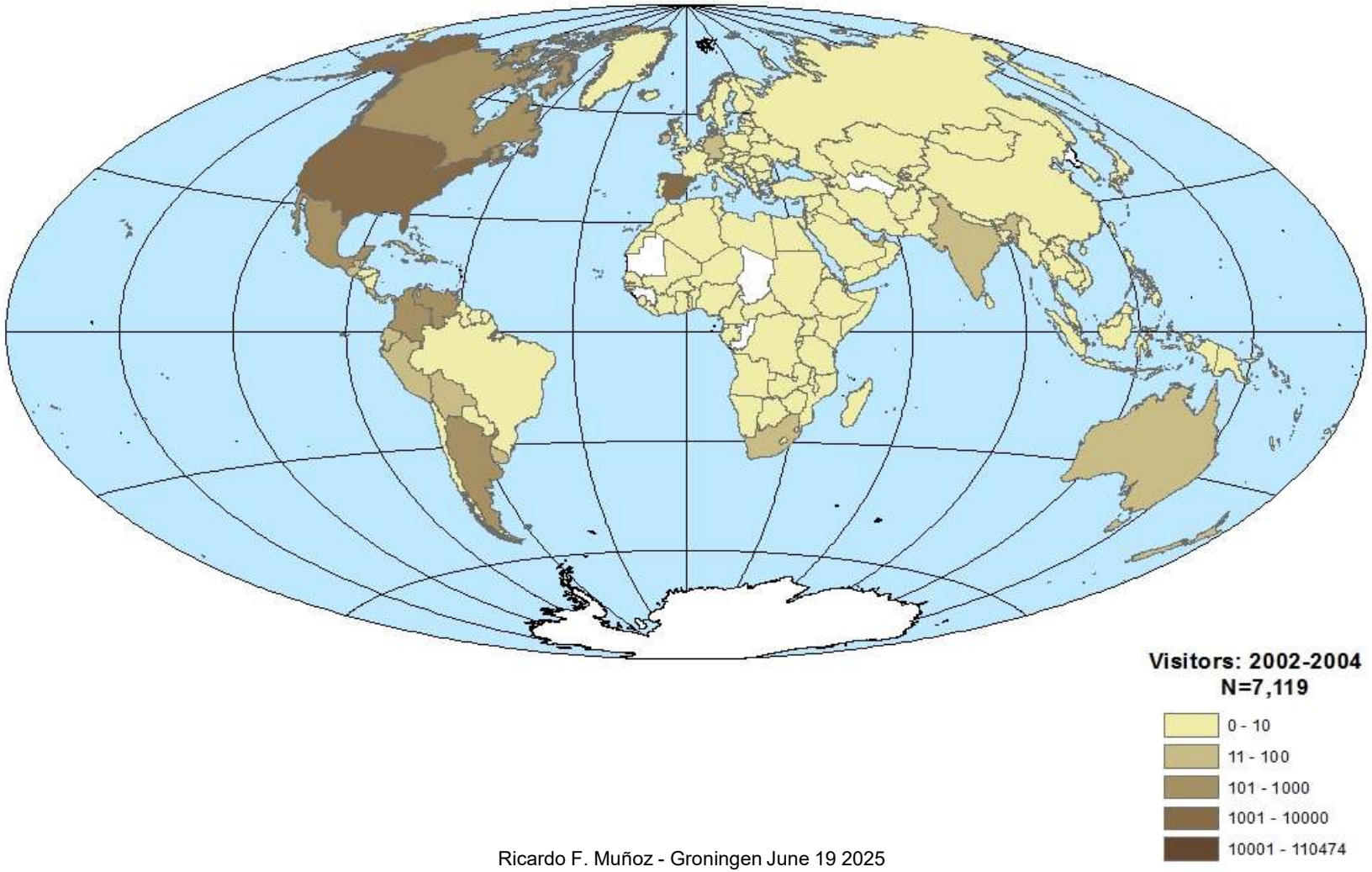

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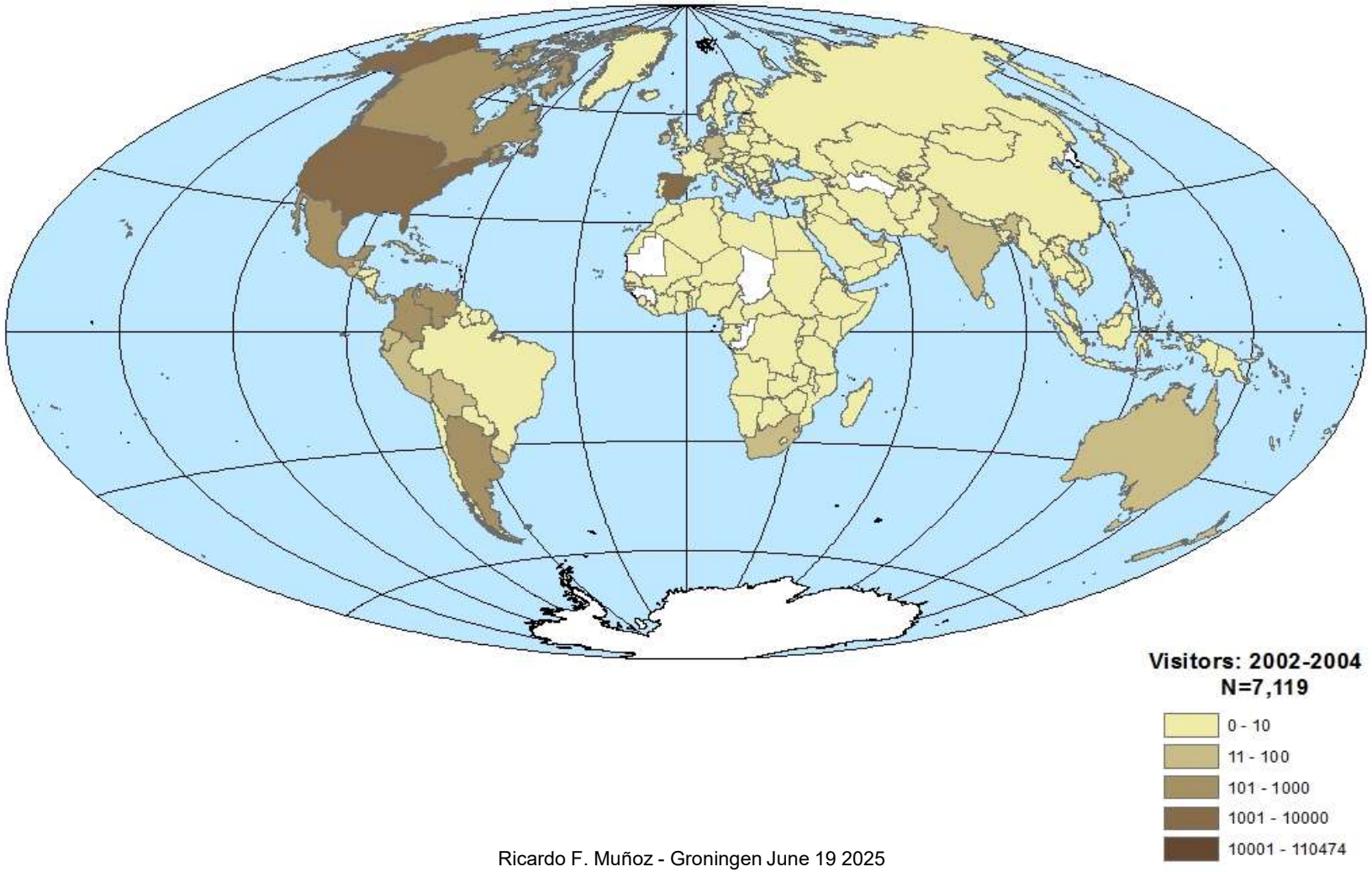

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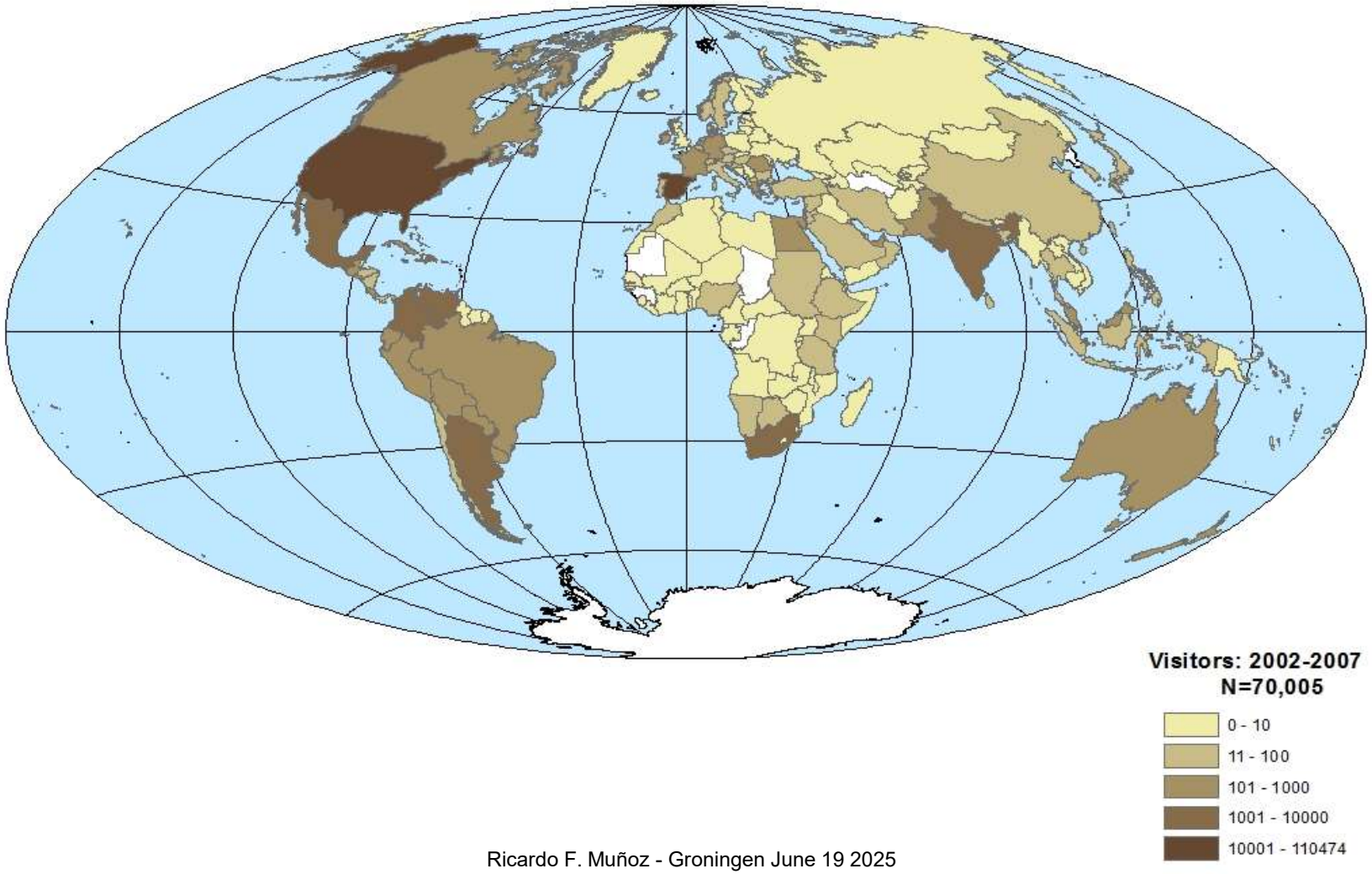

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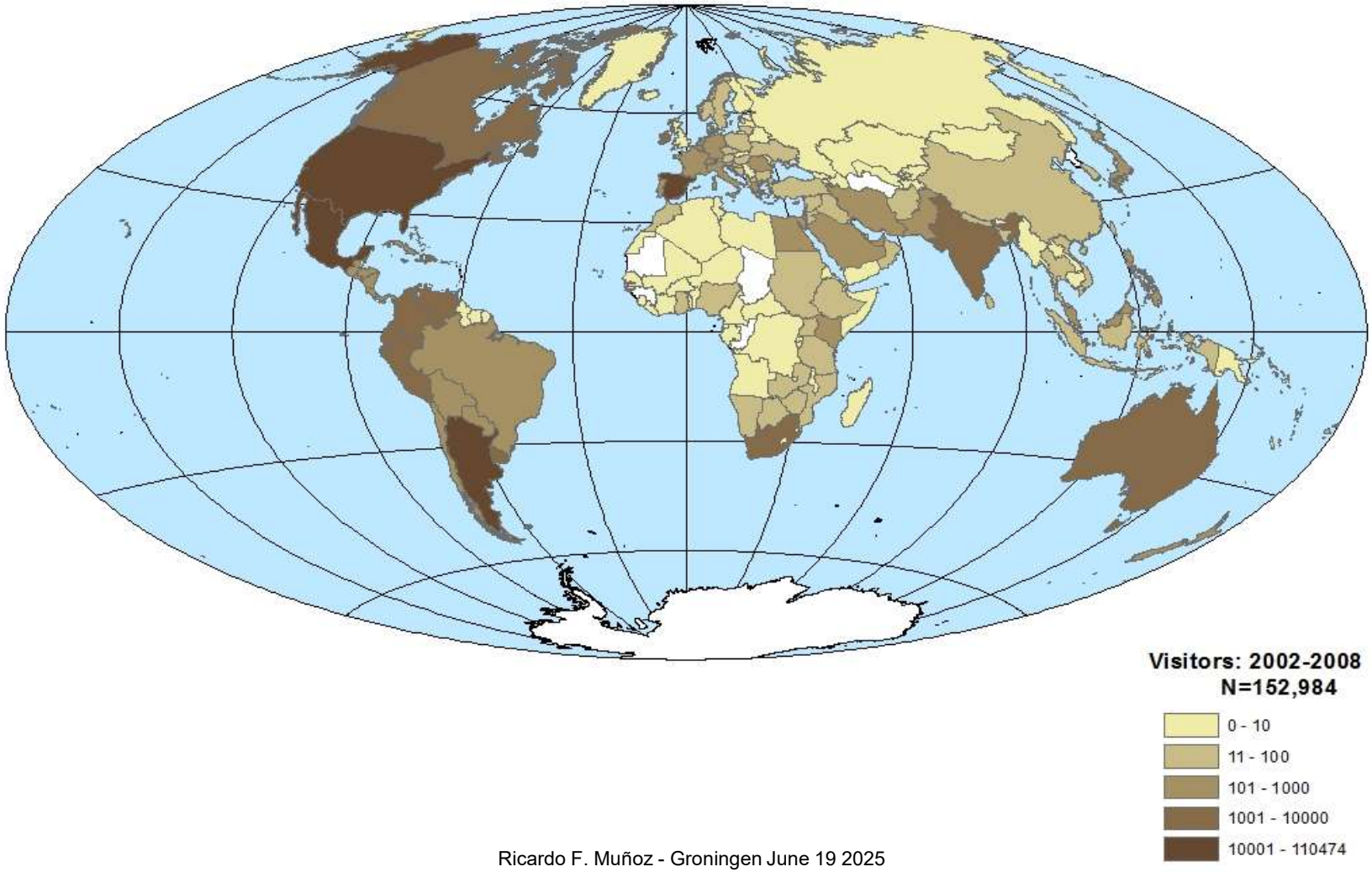

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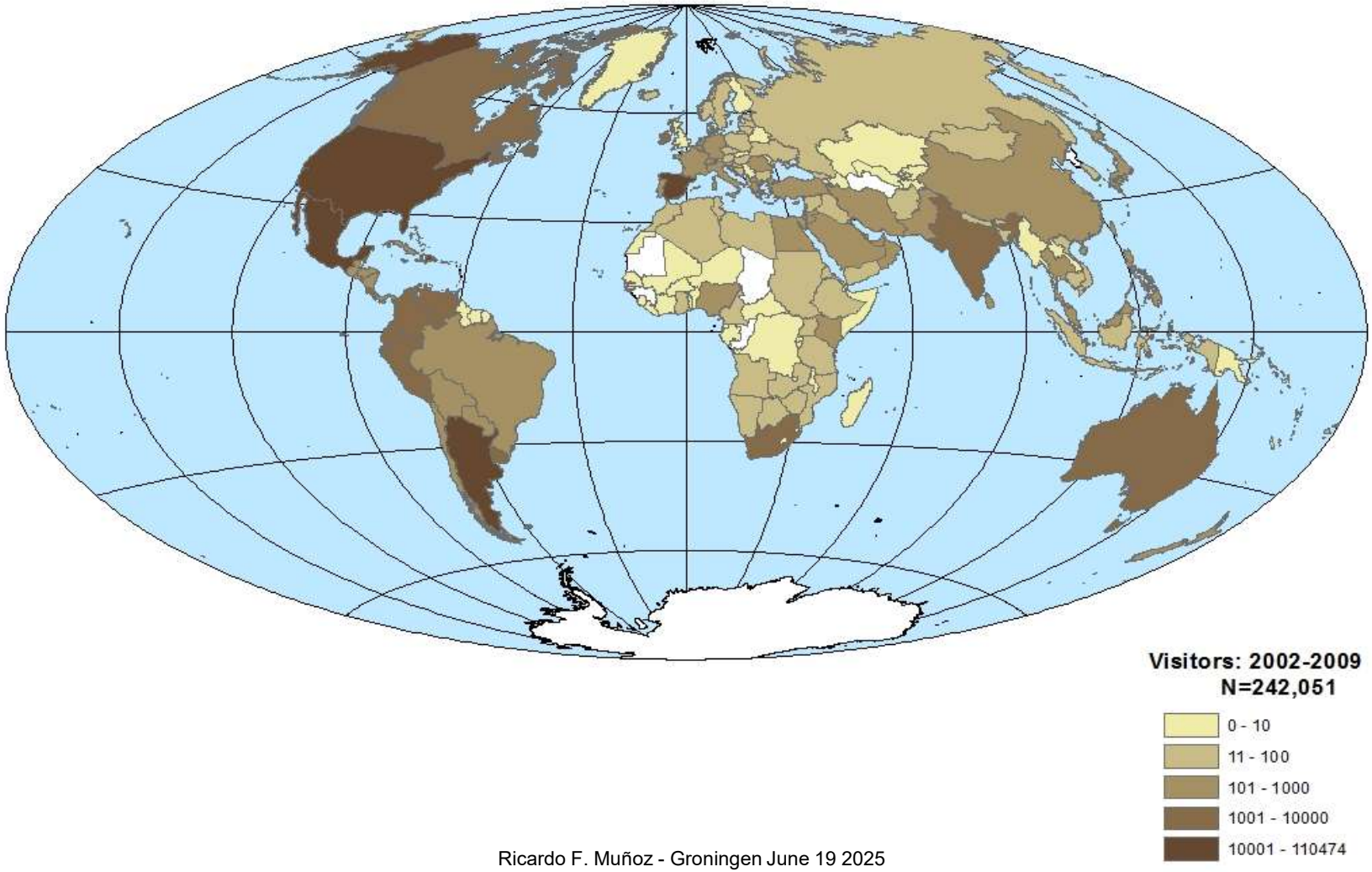

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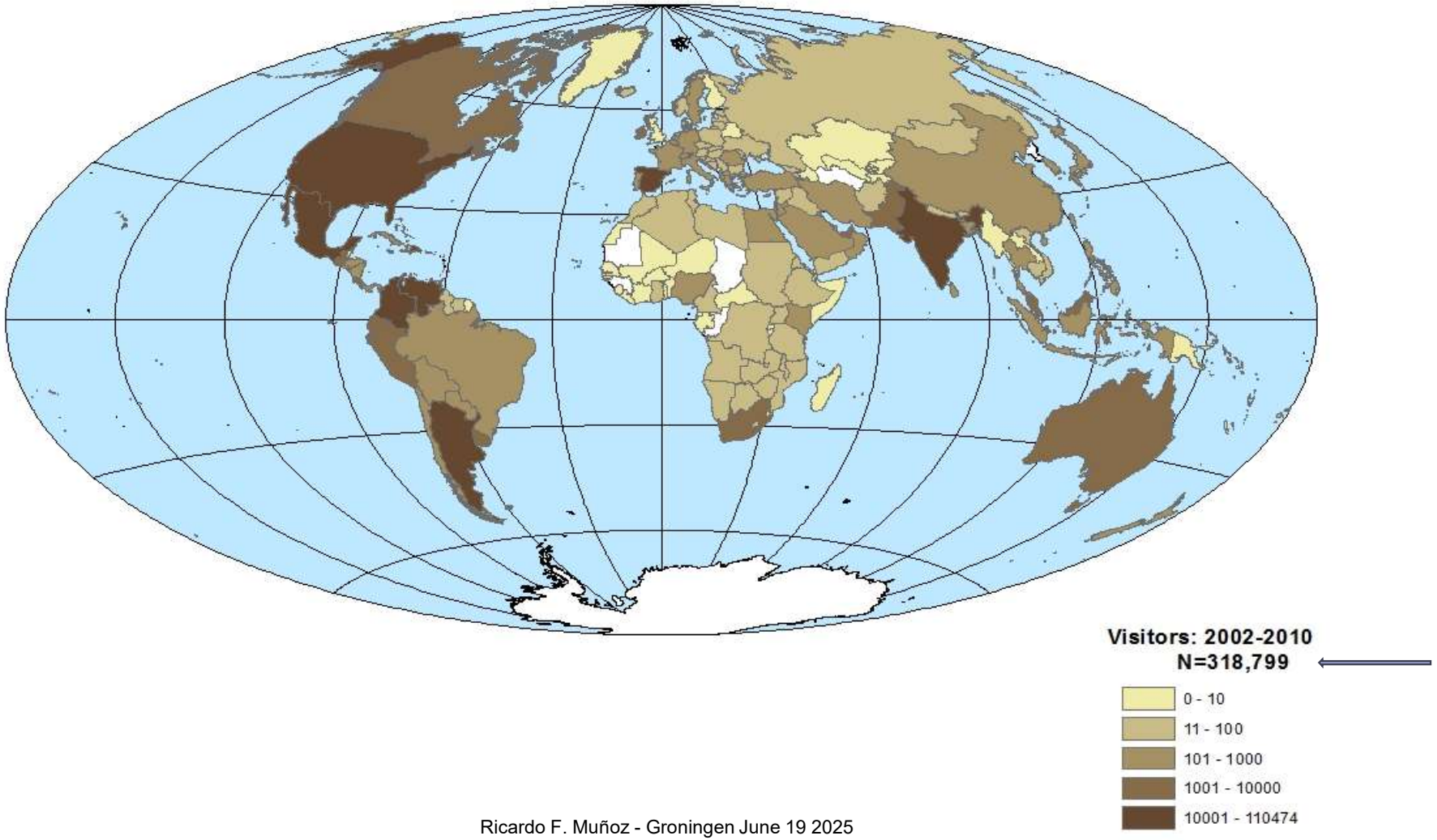


Ricardo F. Muñoz - Groningen June 19 2025

Cost

A Participant Preference Trial

- **18,154 entered the study**
- **3,479 (19%) gave us data showing they had quit**
- **To help that many smokers quit, it would have taken $3,652,950 worth of nicotine patches**
- **We were able to do this in 2½ years, for $200,000**

by keeping the website open <u>after the grant ended</u>.

How did we get $3,652,950?

- Nicotine patches cost $3 to $4 each.
- $3/day x 7 days = **$21/week**
- Patches are used for **10 wks: $21 x 10 = $210.**

- *Patches yield quit rates of 14% to 22%.*
- Let's use 20% (1 out of 5) for our estimate.

- To get 3,479 smokers to quit, we would have to give the patches to 5 times that many, or a total of 17,395 smokers.
- **17,395 x $210 = $3,652,950!**

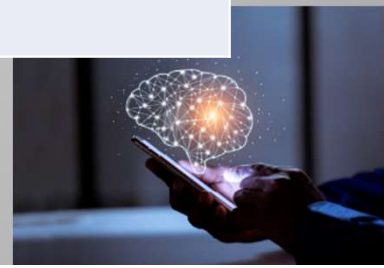
$3,652,950 vs. $200,000!

- Consumable interventions are VERY expensive!

The Marginal Cost of Non-consumable Interventions

If a fully automated digital health intervention website costs ***$1 million*** to create and evaluate and if…

… this many people use the intervention,	… the *marginal cost* (The cost of offering the intervention to *one* more person) is:
1,000	$1,000



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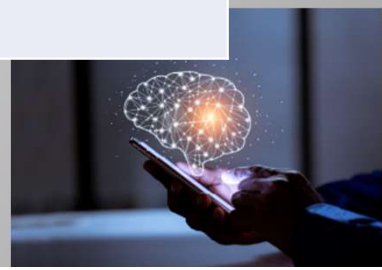
100,000	$10



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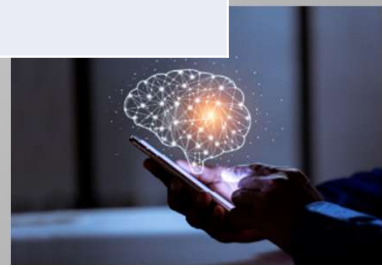
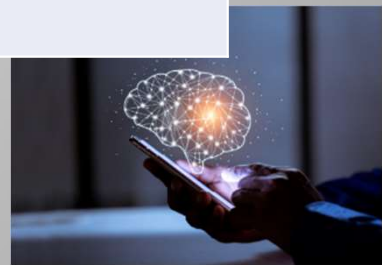
1,000	$1,000
100,000	$10
1,000,000	$1



The Marginal Cost of Non-consumable Interventions

If a fully automated digital health intervention website costs ***$1 million*** to create and evaluate and if…

… this many people use the intervention,	… the *marginal cost* (The cost of offering the intervention to *one* more person) is:
1,000	$1,000
100,000	$10
1,000,000	$1
10,000,000	$0.10



Today we can reach 2 out of 3 of the 8 billion people in the world

- Source: Internet World Stats

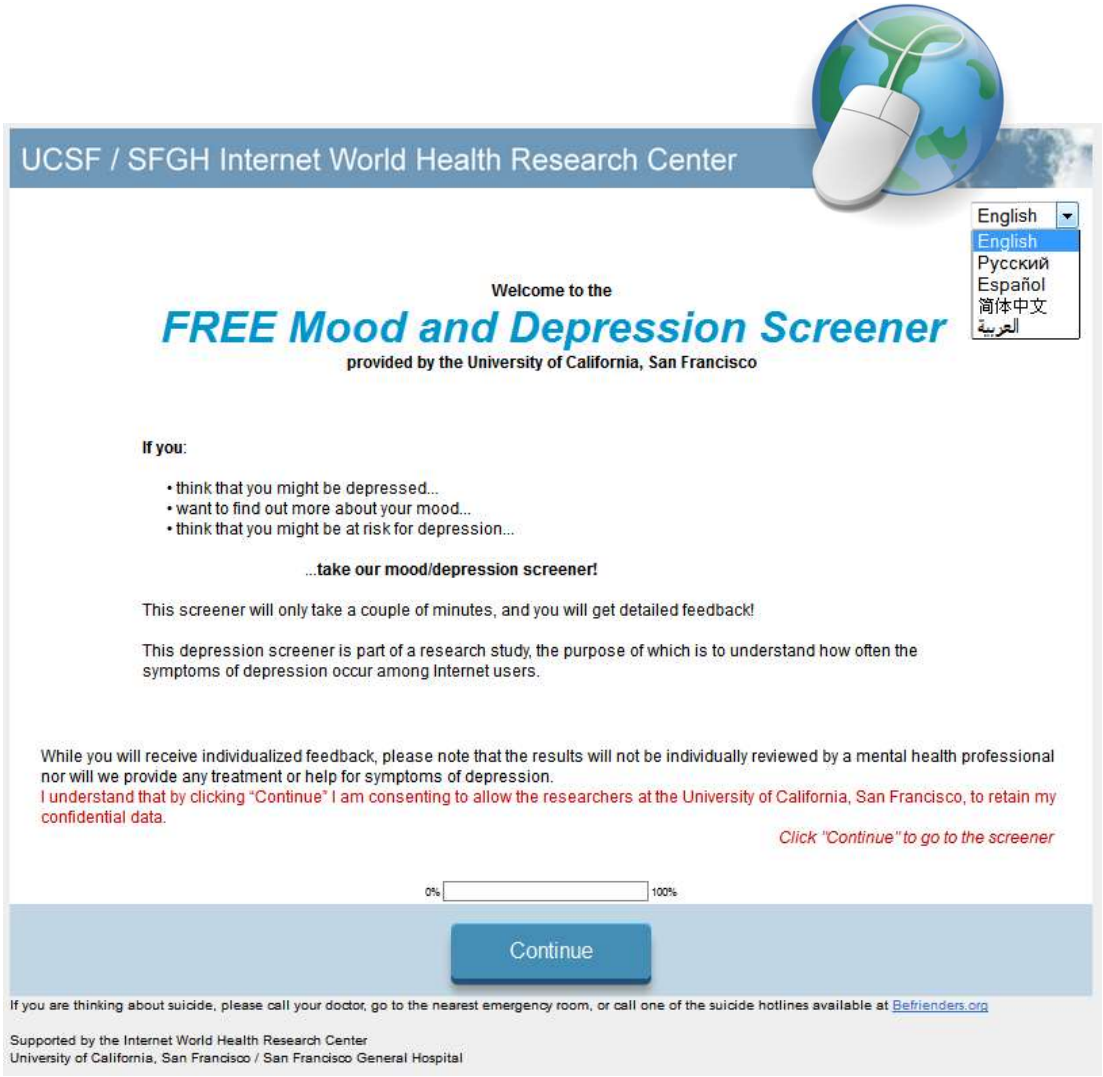
Date	Number of users	Percentage of the world's population
December 1997	70 million	1.7%
December 1998	147 million	3.6%
September 2010	2.0 billion	28.8%
June 2019	4.5 billion	58.8%
December 2022	5.5 billion	69.0%

https://www.internetworldstats.com/emarketing.htm

Most people who are depressed are not receiving treatment

Mood Screener

Who searches for depression information online?



Yan Leykin, 2015

Broad recruitment:
In English, Spanish, Chinese, Russian, and Arabic

Anyone 18+ years of age

Google AdWords

Think you are depressed?
ucsf.us.qualtrics.com
Find out. 5 minute mood screener from UCSF.

فحص مجاني للحالة المزاجية
ucsf.us.qualtrics.com
أتشعر بالغم؟ أتشعر باكتئاب؟ خذ هذا الاختبار من جامعة UCSF.

免费情绪和抑郁症筛检表
ucsf.us.qualtrics.com
心情有点低落吗？抑郁吗？
填这个加州大学－旧金山分校的问卷

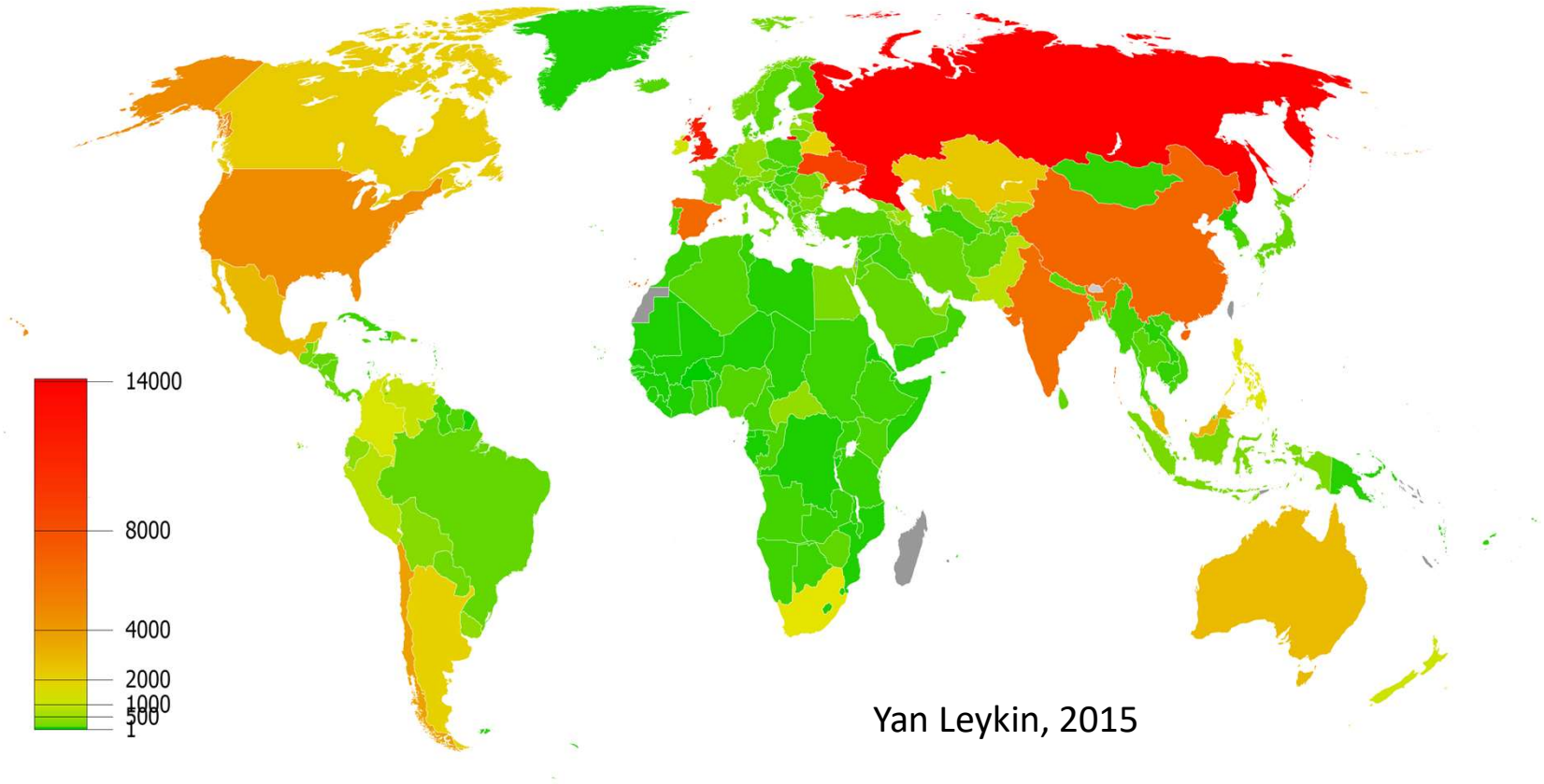
Examine su ánimo
ucsf.us.qualtrics.com
¿Preocupado de que pueda estar deprimido? Test diseñado por UCSF

Думаете у Вас депрессия?
ucsf.us.qualtrics.com
Узнайте если ли у Вас депрессия.
Пройдите тест настроения из УКСФ

Yan Leykin, 2015

Worldwide reach

231 countries and territories represented



Yan Leykin, 2015

Large sample

	English	Spanish	Russian	Chinese	Arabic
Visitors	215,000	37,000	79,000	38,000	45,000
% eligible	79%	87%	67%	71%	75%
Screened for current depression	77,000	17,500	24,000	9,500	10,500

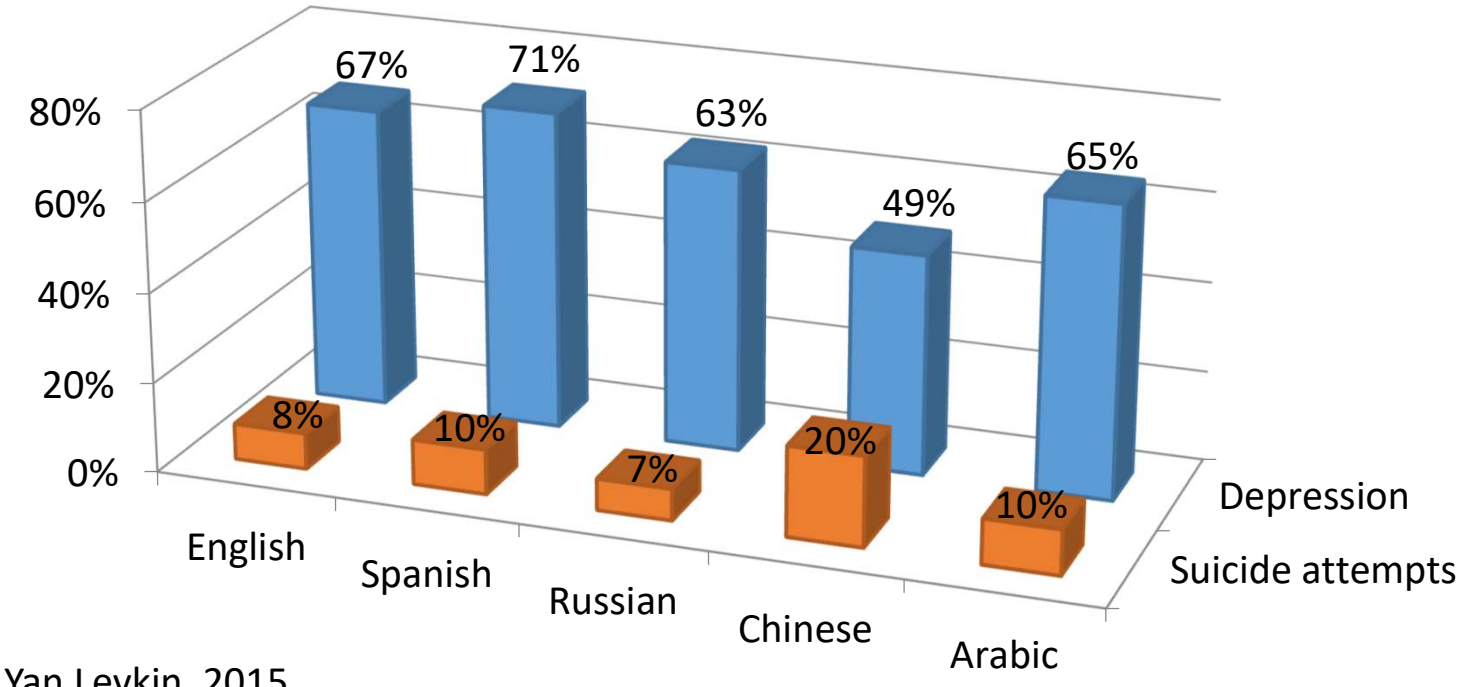
Not eligible = under 18 years old

http://tiny.ucsf.edu/mood_screener

Yan Leykin, 2015

Rates of depression and suicide

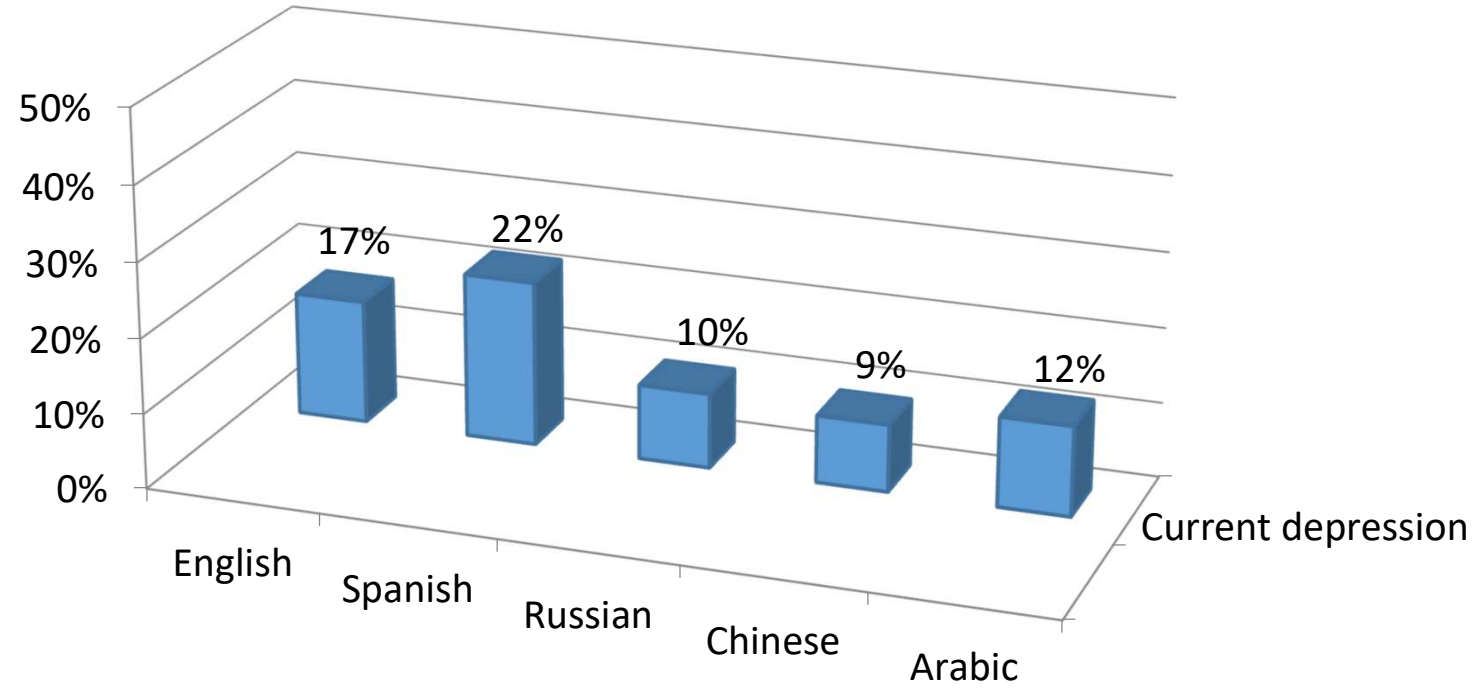
In the past 2 weeks…



Yan Leykin, 2015

Who is in treatment?

How many report current antidepressants or psychotherapy?



Yan Leykin, 2015

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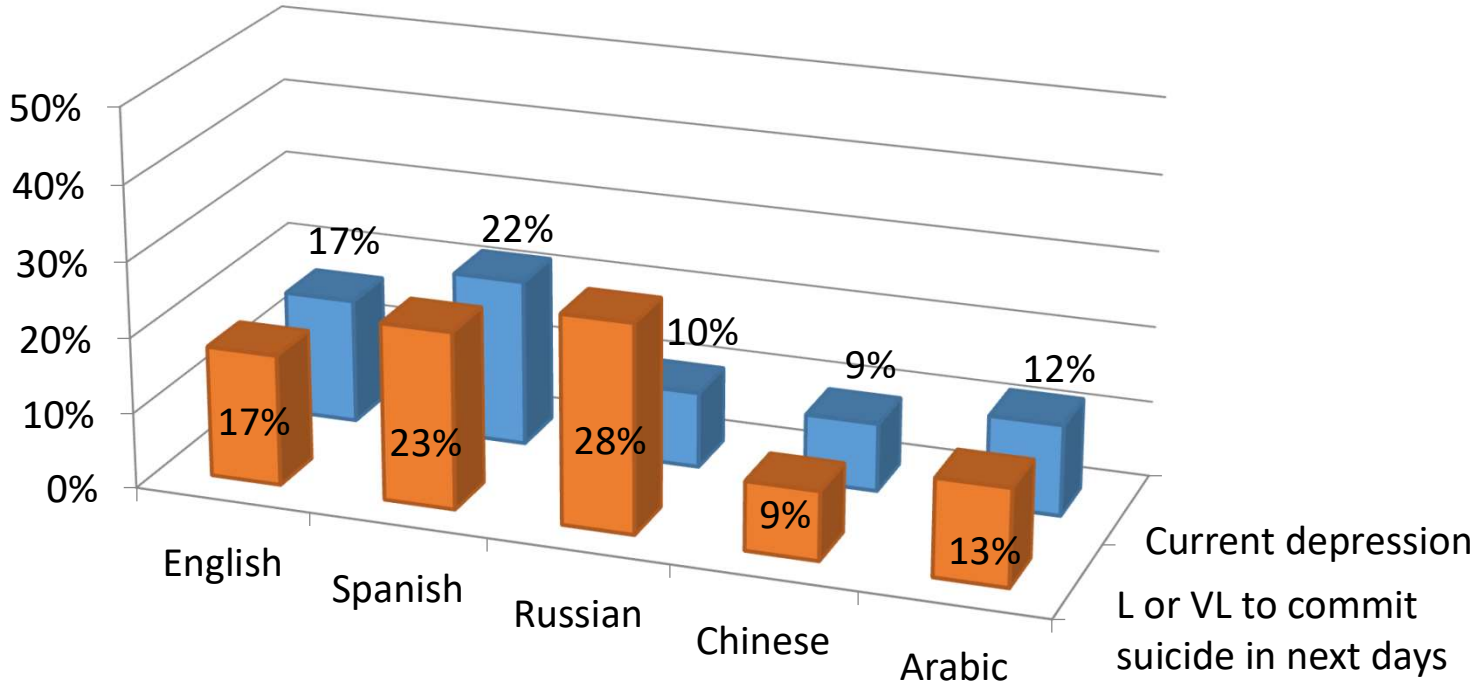

Yan Leykin, 2015

2016

On MOOCs and MOOIs (*moo*-ees)

From Massive Open Online Courses (MOOCs) to

Massive Open Online Interventions

Empirical Article

aps ASSOCIATION FOR PSYCHOLOGICAL SCIENCE

Clinical Psychological Science
1–12

DOI: 10.1177/2167702615583840
cpx.sagepub.com
SAGE

Massive Open Online Interventions: A Novel Model for Delivering Behavioral-Health Services Worldwide

Ricardo F. Muñoz[1,2,3], Eduardo L. Bunge[1,2], Ken Chen[1,2], Stephen M. Schueller[4,5], Julia I. Bravin[1,2], Elizabeth A. Shaughnessy[1,2], and Eliseo J. Pérez-Stable[6]

2018

Digital Apothecaries:
Online repositories for MOOIs

Review Article

Digital apothecaries: a vision for making health care interventions accessible worldwide

Ricardo F. Muñoz[1,2], Denise A. Chavira[3], Joseph A. Himle[4], Kelly Koerner[5], Jordana Muroff[6], Julia Reynolds[7], Raphael D. Rose[3], Josef I. Ruzek[8,9,10], Bethany A. Teachman[11], Stephen M. Schueller[12]

mHealth 2018;4:18

Building up Digital Apothecaries
Health Problems x Languages

Systematic development of
evidence-based digital interventions

	Smoking	Depression	Pain	Diabetes	Obesity…
English					
Spanish					
Chinese					
Russian					
Arabic					
Etc…					

Participant Preference Research Site:
Visitors and Participants in 2 ½ Years

Stage	Spanish	English	Total
Visitors to the Site	138,154	63,803	201,957
Demographic data	35,153	14,101	49,254
Eligible	**27,152**	**8,915**	**36,067**
Consented	**13,615**	**4,858**	**18,473**

Participant Preference Research Site:
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Eligible	**27,152**	**8,915**	**36,067**
Consented	**13,615**	**4,858**	**18,473**

Only 9% of those interested participated in the outcome study

Participant Preference Research Site: Visitors and Participants in 2 ½ Years

Provide something for all >>

Stage	Spanish	English	Total
Visitors to the Site	138,154	63,803	201,957
Demographic data	35,153	14,101	49,254
Eligible	**27,152**	**8,915**	**36,067**
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Participant Preference Research Site: Visitors and Participants in 2 ½ Years

Allow eligible access to tools >>

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- Provide nonconsumable digital interventions for all who are interested
- Conduct research studies with those who provide consent
- Allow access to the research interventions to those who choose not give consent to use their data in research studies

Single session interventions?

Free range users and one hit wonders: community users of an Internet-based cognitive behaviour therapy program

Helen Christensen, Kathy Griffiths, Chloe Groves, Ailsa Korten

Australian and New Zealand Journal of Psychiatry 2006; 40:59–62

"It may well be that the Internet's role in disease prevention will be in the delivery of short positive health messages, rather than through the delivery of 'therapy' that requires hours of online work."

ARTICLES
https://doi.org/10.1038/s41562-021-01235-0

nature human behaviour

Check for updates

A randomized trial of online single-session interventions for adolescent depression during COVID-19

Jessica L. Schleider[1]✉, Michael C. Mullarkey[1], Kathryn R. Fox[2], Mallory L. Dobias[1], Akash Shroff[1], Erica A. Hart[2] and Chantelle A. Roulston[1]

Nature Human Behaviour
VOL 6
February 2022, 258–268
www.nature.com/nathumbehav

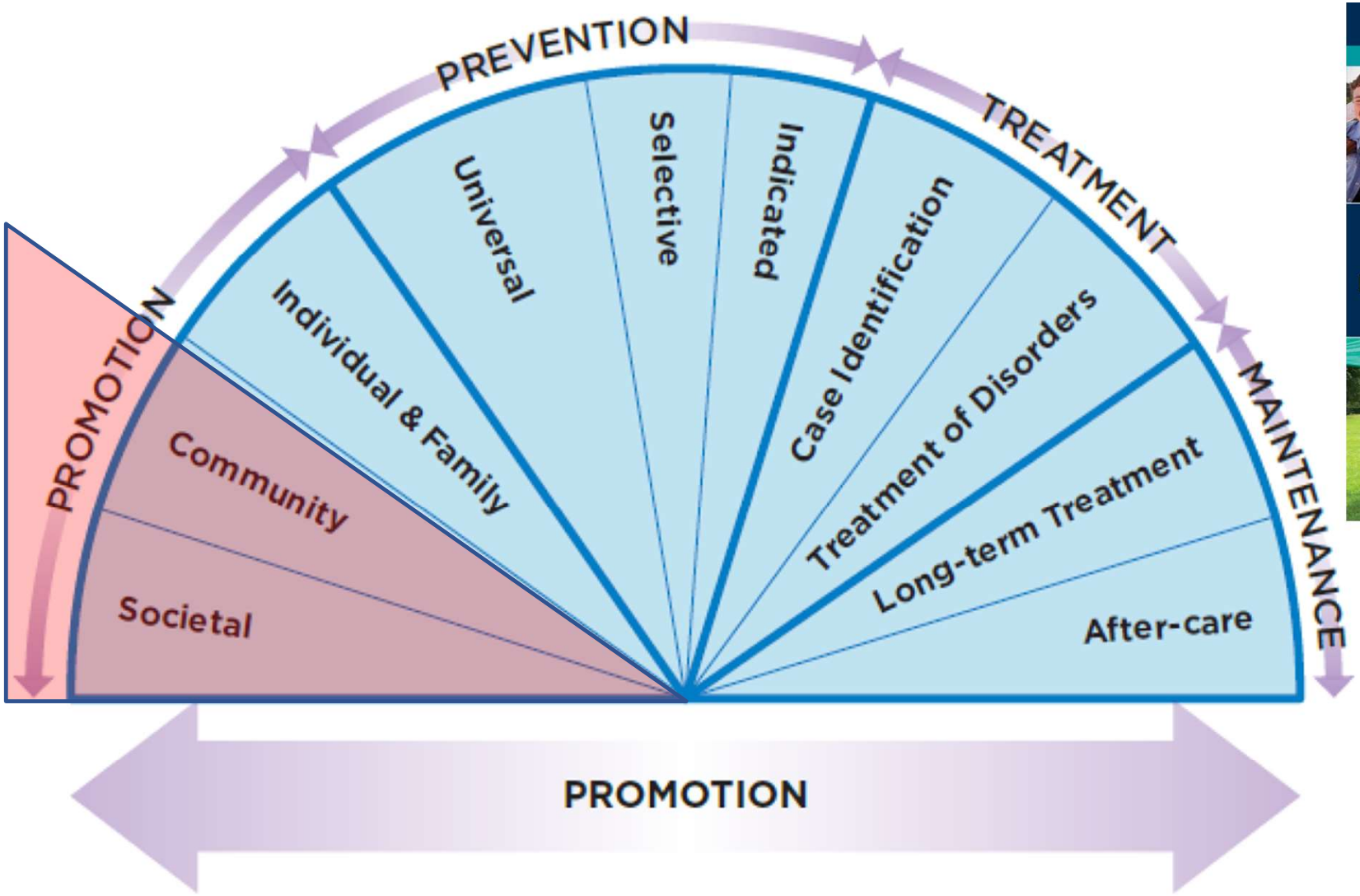
"Compared with the control, both active SSIs

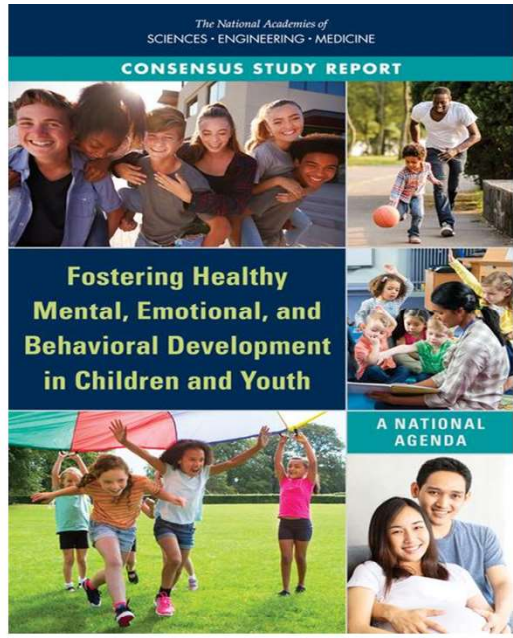
- *reduced three-month depressive symptoms (Cohen's d = 0.18),*
- *decreased post-intervention and three-month hopelessness (d = 0.16–0.28),*
- *increased post-intervention agency (d = 0.15–0.31) and*
- *reduced three-month restrictive eating (d = 0.12–17)…*

These results confirm the utility of free-of-charge, online SSIs for high-symptom adolescents, even in the high-stress COVID-19 context."

What about the people for whom current prevention or treatment interventions are not accessible or effective?

We need to expand our focus to address
Social Determinants of Health





2019 National Academies of Science, Engineering, and Medicine Consensus Study Report

FIGURE 1-3 2019 update of the spectrum of MEB interventions.

American Psychologist, May-June 2012

The Critical Role of Nurturing Environments for Promoting Human Well-Being

Anthony Biglan — *Oregon Research Institute*
Brian R. Flay — *Oregon State University*
Dennis D. Embry — *PAXIS Institute*
Irwin N. Sandler — *Arizona State University*

The Effects of Poverty on the Mental, Emotional, and Behavioral Health of Children and Youth

Implications for Prevention

Hirokazu Yoshikawa — *Harvard University*
J. Lawrence Aber — *New York University*
William R. Beardslee — *Harvard Medical School/Children's Hospital Boston*

2019

NEWS · 14 OCTOBER 2019

‘Randomistas’ who used controlled trials to fight poverty win economics Nobel

Abhijit Banerjee, Esther Duflo and Michael Kremer have been awarded the prize for their experimental approach to alleviating poverty.

Ewen Callaway

Esther Duflo (left), Michael Kremer and Abhijit Banerjee (right) applied techniques from the medical sciences to research on poverty. Credit: Eric Fougere/VIP Images/Corbis/Getty, Jon Chase/Harvard University, Saumya Khandelwal/Hindustan Times/Getty

RELATED ARTICLES

Can randomized trials eliminate global poverty?

Aid burst lifts people out of extreme poverty

Chemistry Nobel honours world-changing batteries

Physics Nobel goes to exoplanet and cosmology pioneers

Banerjee et al., Science 15 May 2015

RESEARCH ARTICLE

DEVELOPMENT ECONOMICS

A multifaceted program causes lasting progress for the very poor: Evidence from six countries

Abhijit Banerjee,[1,2,3,4] Esther Duflo,[1,2,3,4] Nathanael Goldberg,[5] Dean Karlan,[2,3,4,5,6]* Robert Osei,[7] William Parienté,[4,8] Jeremy Shapiro,[9] Bram Thuysbaert,[5,10] Christopher Udry[2,3,4,6]

We present results from six randomized control trials of an integrated approach to improve livelihoods among the very poor. The approach combines the transfer of a productive asset with consumption support, training, and coaching plus savings encouragement and health education and/or services. Results from the implementation of the same basic program, adapted to a wide variety of geographic and institutional contexts and with multiple implementing partners, show statistically significant cost-effective impacts on consumption (fueled mostly by increases in self-employment income) and psychosocial status of the targeted households. The impact on the poor households lasted at least a year after all implementation ended. It is possible to make sustainable improvements in the economic status of the poor with a relatively short-term intervention.

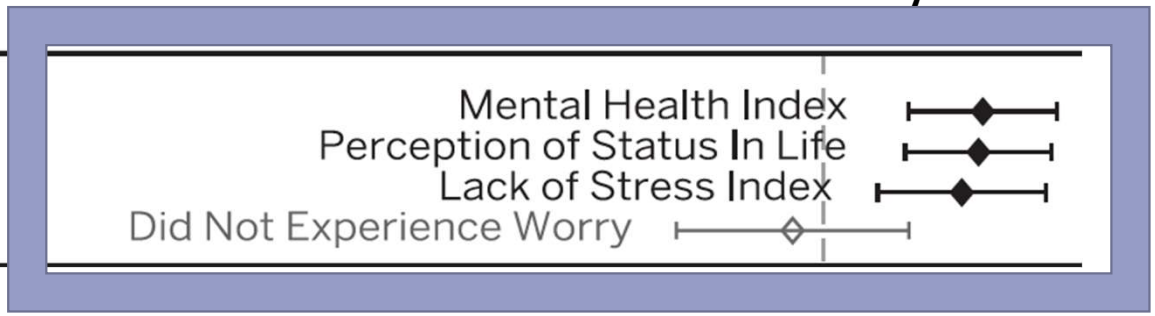
Six randomized trials in Ethiopia, Ghana, Honduras, India, Pakistan, and Peru.

N = 21,063 adults in 10,495 households

Poorest villages identified. Poorest households identified using Participatory Wealth Ranking, done by villagers.

Banerjee et al.,
Science
15 May 2015

Mental Health



"...We do see some improvement in the self-reported well-being of the beneficiaries…
Much more detailed psychological measurement would be necessary to fully understand this result and its underlying mechanisms."
(Page 1260799-14)

Where to next?

- Provide access to as many people as possible to
  - Preventive interventions to reduce incidence
  - Treatment interventions to reduce prevalence
- Address social determinants of health
  - To reduce risk factors at a population level

Priorities

Populations	Individual Interventions	Modalities to consider to increase access to all	Social and Community Interventions	Social and Community Interventions
Major Depressive Episodes	Treatment			
Subthreshold depression (Indicated)	Consumable preventive interventions			
High-risk groups (Selective)	Nonconsumable interventions			
Low-risk groups (Universal)	Nonconsumable interventions			

Priorities

Populations	Individual Interventions	Modalities to consider to increase access to all	Social and Community Interventions	Social and Community Interventions
Major Depressive Episodes	Treatment	<u>Consumable</u>: Professionals Lay Health Workers Volunteers Peers <u>Nonconsumable</u>: Digital, mass media interventions Printed matter	Helpful at all levels	Creating nurturing environments Reducing: • Poverty • Discrimination • Epidemics
Subthreshold depression (Indicated)	Consumable preventive interventions			
High-risk groups (Selective)	Nonconsumable interventions			
Low-risk groups (Universal)	Nonconsumable interventions			

Think Globally

Depression is the leading cause of disability worldwide.
Smoking is the number one cause of preventable death worldwide.

Think Globally
Act Locally

*Develop and test preventive and treatment interventions that work in **your** communities.*

Think Globally
Act Locally
Share Globally

Share your interventions widely,
for example, with those who speak the same language.
Develop, test, and disseminate digital interventions,
such as websites and apps worldwide and ideally at no charge.


Ricardo F. Muñoz - Groningen June 19 2025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Ecuador
Guayaquil
Peru
Chosica
Lima
La Paz
Bolivia
© 2006 Europa Technologies
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Let’s blanket the world with preventive and treatment interventions to protect as many people as possible from preventable depression.

Thank you!

rmunoz@paloaltou.edu