# EARLY INTERVENTION IN PSYCHIATRY

## Beyond Psychosis Risk

**Patrick McGorry**
**MD PhD**

Orygen YOUTH Health

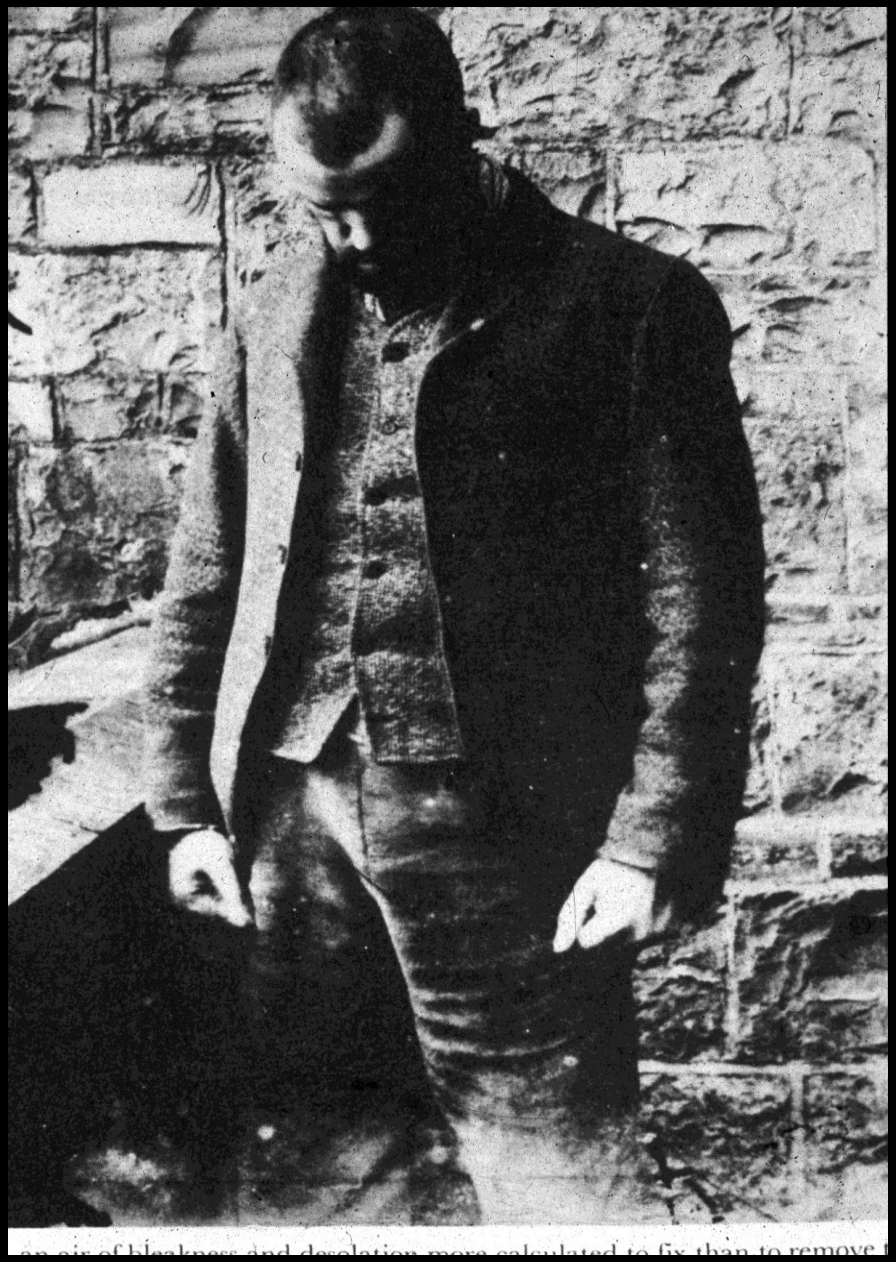
THE UNIVERSITY OF MELBOURNE

*Opening minds to a brighter future*

# IN THIS TALK!

- The EI Imperative
- The Psychosis Risk/APS controversy
- Clinical Staging
- A New Architecture and Culture of Care: Youth Mental Health


“If you start an idea
nothing can stop it”
John Flynn,1919

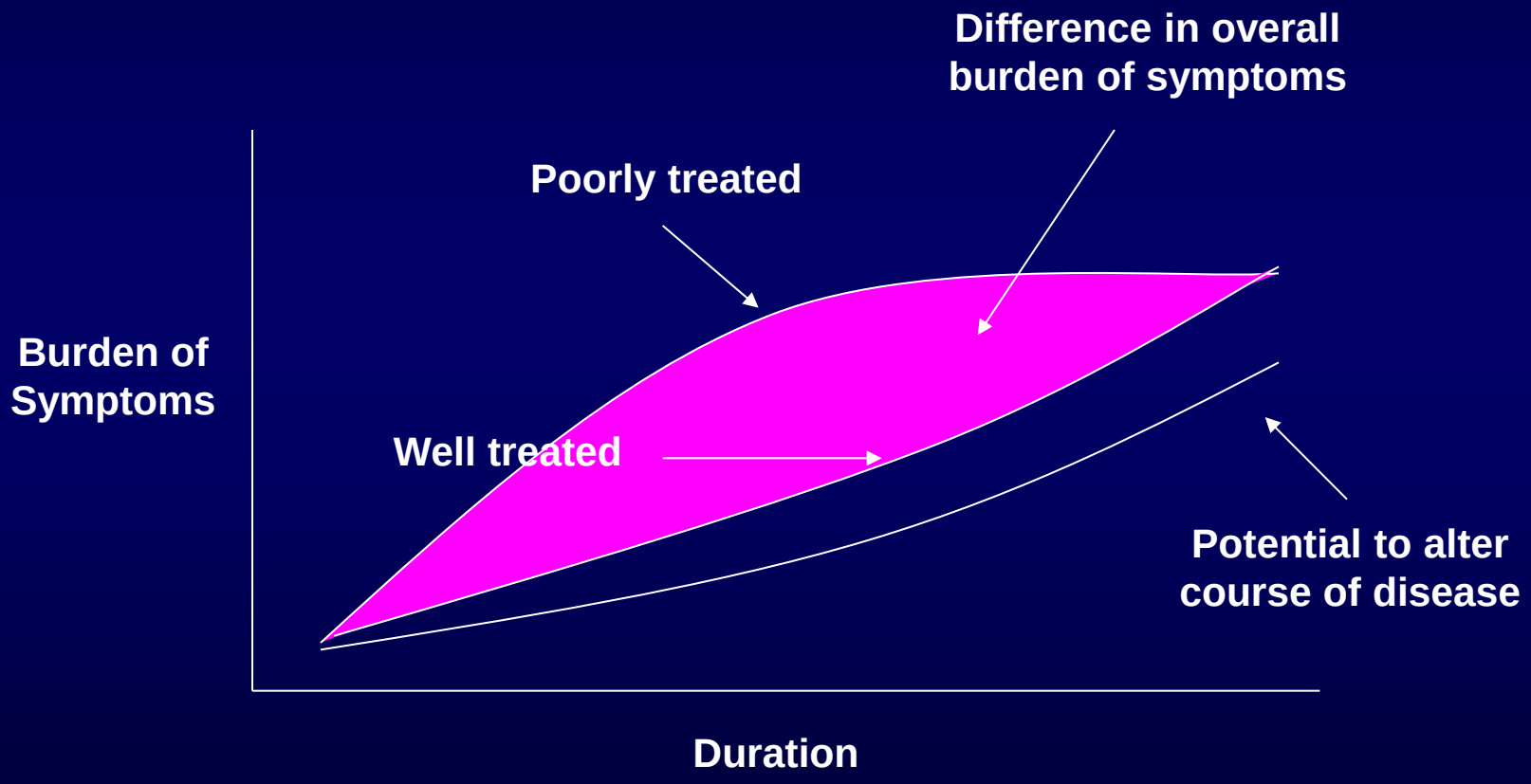


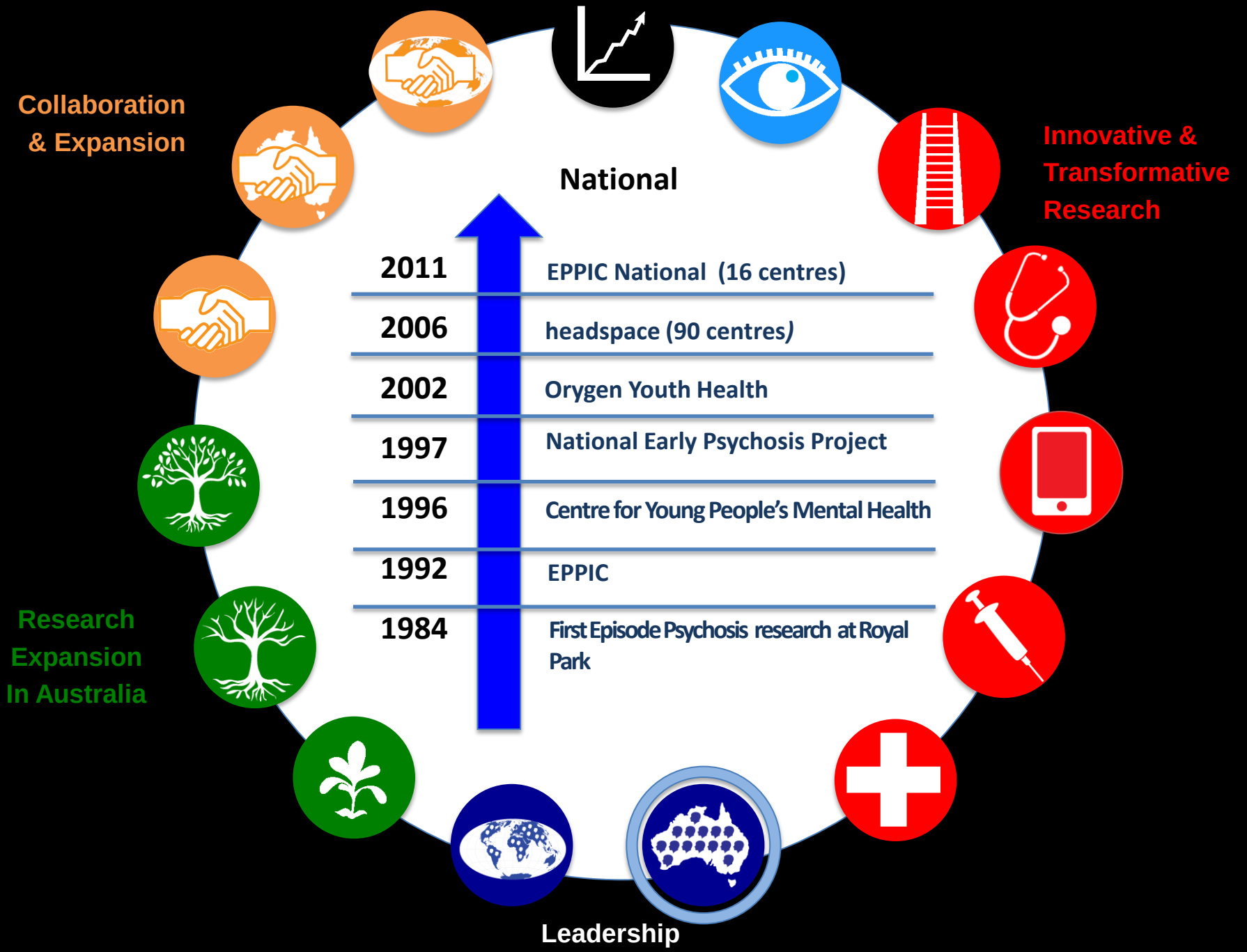
“An air of desolation more calculated to fix than to remove”

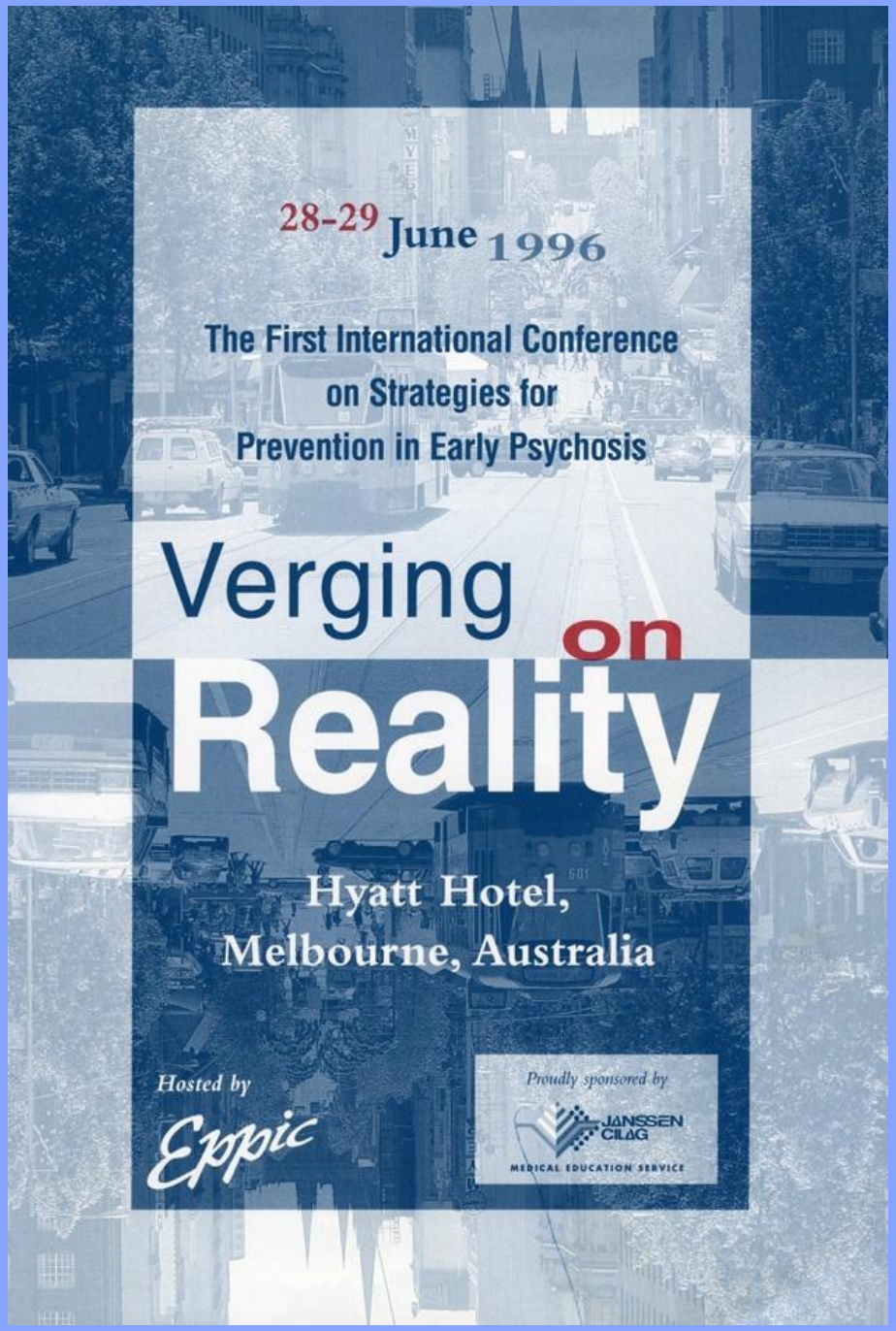
Orygen YOUTH Health

## Current services - too little, too late…

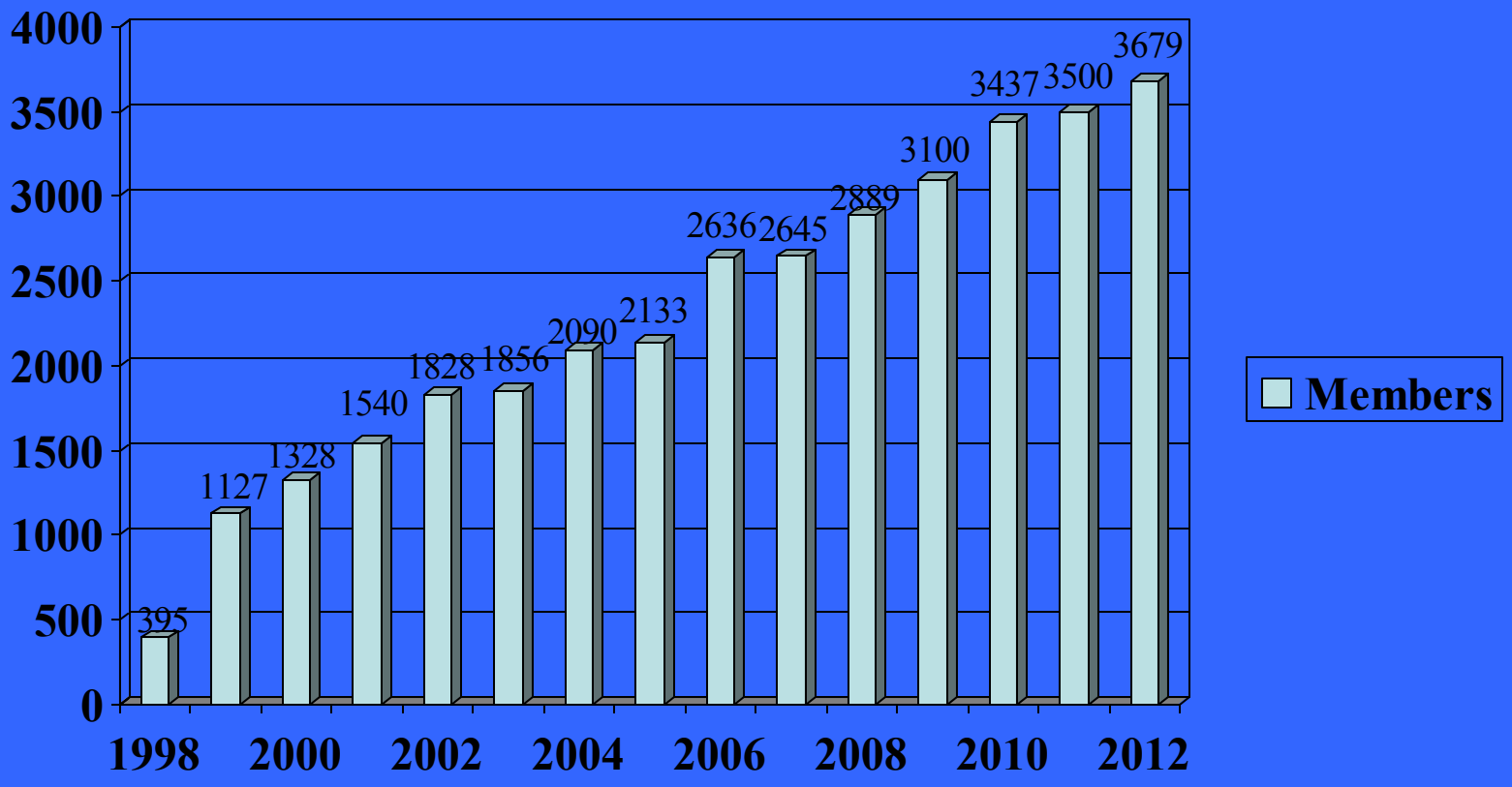
# Burden of Disease




Collaboration & Expansion
Innovative & Transformative Research
Research Expansion In Australia
Leadership
National
2011
EPPIC National (16 centres)
2006
headspace (90 centres)
2002
Orygen Youth Health
1997
National Early Psychosis Project
1996
Centre for Young People's Mental Health
1992
EPPIC
1984
First Episode Psychosis research at Royal Park


28-29 June 1996
The First International Conference
on Strategies for
Prevention in Early Psychosis
Verging on Reality
Hyatt Hotel,
Melbourne, Australia
Hosted by
Eppic
Proudly sponsored by
JANSSEN CILAG
MEDICAL EDUCATION SERVICE

# TOTAL IEPA MEMBERS PER YEAR




From Neurobiology
to Public Policy
FROM NEUROBIOLOGY TO PUBLIC POLICY
8TH INTERNATIONAL
CONFERENCE ON EARLY PSYCHOSIS
San Francisco | Oct 10-12, 2012
11th to 13th October 2012 – Hyatt Regency, San Francisco
International Early Psychosis Association
An international network for the study and treatment of early psychosis
Please remember to turn off your ringer during the session

# The 9th International Conference on Early Psychosis

## TO THE NEW HORIZON

**Dates**

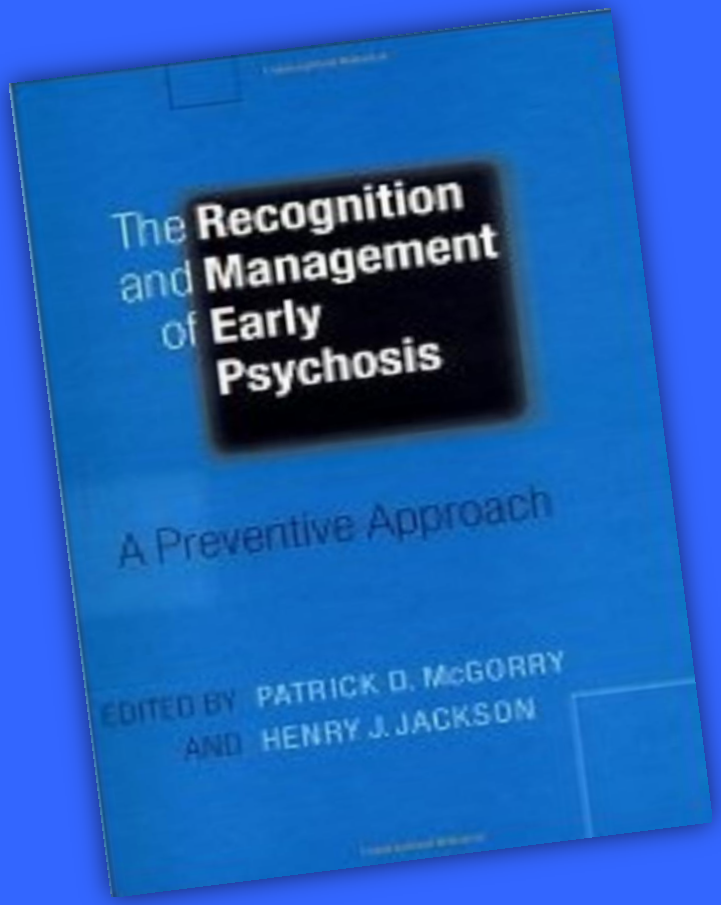
17th November

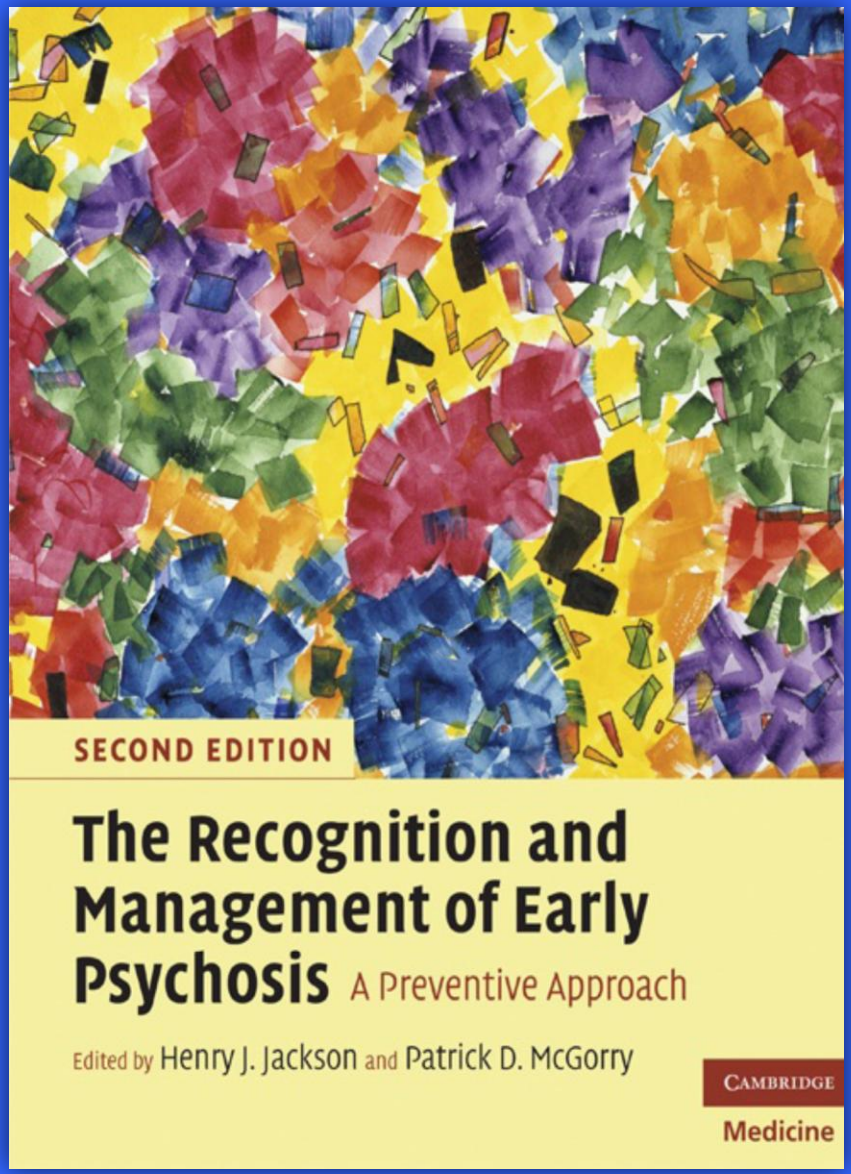
▼

19th November 2014

**Venue**

The Keio Plaza Hotel,
Shinjuku TOKYO


The Recognition and Management of Early Psychosis
A Preventive Approach
EDITED BY PATRICK D. McGORRY AND HENRY J. JACKSON


SECOND EDITION
The Recognition and Management of Early Psychosis
A Preventive Approach
Edited by Henry J. Jackson and Patrick D. McGorry
CAMBRIDGE
Medicine

nacmh
national advisory council on mental health

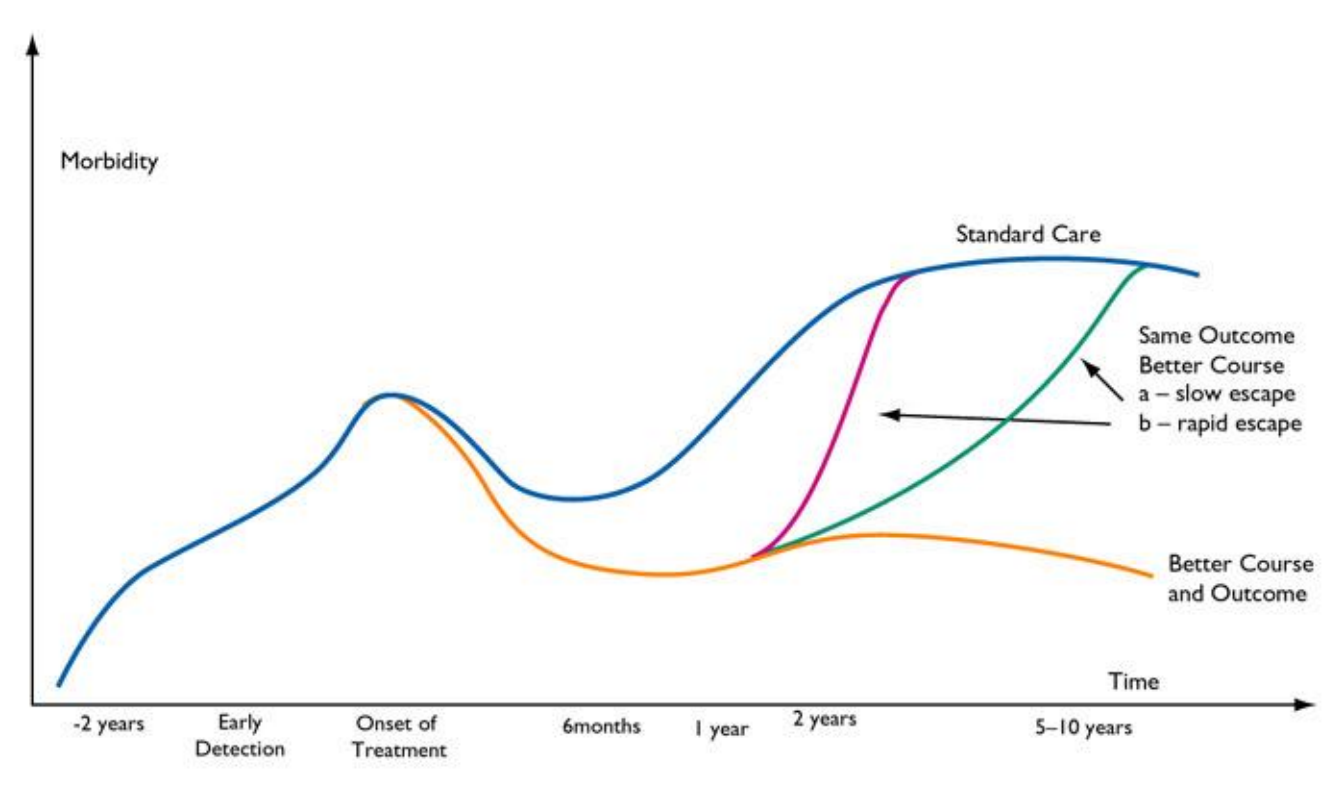
# Early Psychosis Feasibility Study Report

March 2011

Prepared for the National Advisory Council on Mental Health and the Commonwealth Department of Health and Ageing

Prepared by Orygen Youth Health Research Centre
Professor Patrick McGorry, Executive Director

Orygen Youth Health Research Centre, 35 Poplar Road, Parkville, Victoria 3052




# Potential Impact of Early Intervention Strategies

ORIGINAL ARTICLE

# Five-Year Follow-up of a Randomized Multicenter Trial of Intensive Early Intervention vs Standard Treatment for Patients With a First Episode of Psychotic Illness

## *The OPUS Trial*

*Mette Bertelsen, MSc; Pia Jeppesen, MD, PhD; Lone Petersen, PhD; Anne Thorup, MD, PhD; Johan Øhlenschlæger, MD, PhD; Phuong le Quach, MD; Torben Østergaard Christensen, PhD; Gertrud Krarup, MD; Per Jørgensen, MD; Merete Nordentoft, MD, PhD, MPH*

**Context:** Intensive early treatment for first-episode psychosis has been shown to be effective. It is unknown if the positive effects are sustained for 5 years.

**Objective:** To determine the long-term effects of an intensive early-intervention program (OPUS) for first-episode psychotic patients.

**Design:** Single-blinded, randomized, controlled clinical trial of 2 years of an intensive early-intervention program vs standard treatment. Follow-up periods were 2 and 5 years.

**Main Outcome Measures:** Psychotic and negative symptoms were recorded. Secondary outcome measures were use of services and social functioning.

**Results:** Analysis was based on the principles of intention-to-treat. Assessment was blinded for previous treatment allocation. At the 5-year follow-up, the effect of treatment seen after 2 years (psychotic dimension odds ratio [OR], −0.32; 95% confidence interval [CI], −0.58 to −0.06; $P = .02$; negative dimension OR, −0.45; 95% CI, −0.67 to −0.22; $P = .001$) had equalized between the treatment groups. A significantly smaller percentage of patients from the experimental group were living in supported hous-

## COMMENT

- No difference in 5 year as compared to 2 year clinical outcomes
- However still underpowered to detect moderate rather than large effects
- Social benefits maintained eg independent living and hospital readmission rates

Schizophrenia Research 129 (2011) 111–115

Contents lists available at ScienceDirect

Schizophrenia Research

journal homepage: www.elsevier.com/locate/schres

# Symptom and functional outcomes for a 5 year early intervention program for psychoses

Ross M.G. Norman [a,b,*], Rahul Manchanda [b], Ashok K. Malla [c], Deborah Windell [b], Raj Harricharan [b], Sandra Northcott [b]

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[b] Prevention and Early Intervention Program for Psychoses (PEPP), Department of Psychiatry, London Health Sciences Centre, South Street Hospital, 392 South Street, London, ON Canada N6A 4G5
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Early intervention
Psychosis
Service delivery

ABSTRACT

There continues to be controversy concerning the long term benefits of specialized early intervention programs (SEI) for psychotic disorders. Recent reports of five year outcomes for SEI programs indicate that benefits of early intervention programs at two year follow-up have disappeared at five years. The Prevention and Early Intervention Program for Psychoses (PEPP) in London, Ontario offers continuity of care for five years, with a lower intensity level of specialized intervention after the initial two years. In this paper we examine whether the outcomes observed at two years were maintained at five year follow-up. In addition, it was possible to compare PEPP outcomes with those of the OPUS project at two and five years.
Results indicate that improvement of symptoms between entry into PEPP and two year follow-up were maintained at five years. In addition, there was further improvement in global functioning between two and five year follow-up. Comparison of PEPP outcomes at two and five year follow-up to those of OPUS suggest that longer term continuity of care within SEI is associated with continuing benefits at least with respect to level of positive symptoms and functioning.

**Schizophrenia Bulletin** vol. 35 no. 5 pp. 909–918, 2009
doi:10.1093/schbul/sbp054
Advance Access publication on June 9, 2009

# Is Early Intervention in Psychosis Cost-Effective Over the Long Term?

**Cathrine Mihalopoulos[1,2], Meredith Harris[3], Lisa Henry[4,5], Susy Harrigan[4,5], and Patrick McGorry[4,5]**

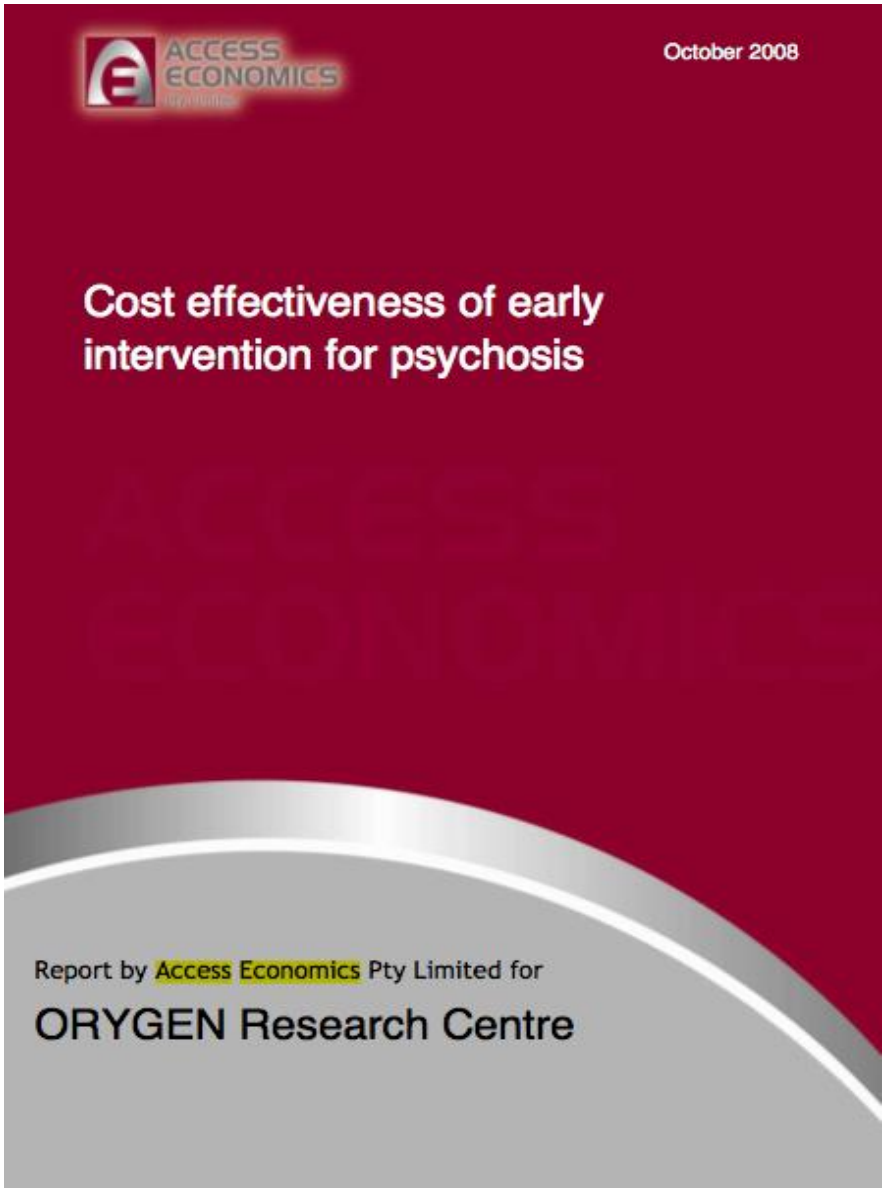
[2]Deakin Health Economics, Deakin University, 221 Burwood Highway, Burwood, Victoria 3125, Australia; [3]School of Population Health, University of Queensland, Queensland 4072, Australia; [4]Orygen Research Centre, 35 Poplar Road, Parkville, Victoria 3052, Australia; [5]Department of Psychiatry, The University of Melbourne, Victoria 3010, Australia

a specialized model of early psychosis intervention with timely and assured care during the early illness period produces better longer term clinical and functional outcomes at ***one third*** of the cost of standard adult mental health services

mental health c

## Introduction

Early interve
mentum in t
200 centers worldwide offering
young people experiencing their first episode of psycho-


ACCESS ECONOMICS
October 2008
Cost effectiveness of early intervention for psychosis
Report by Access Economics Pty Limited for
ORYGEN Research Centre

# Cost-effectiveness of an early intervention service for people with psychosis†

Paul McCrone, Tom K. J. Craig, Paddy Power and Philippa A. Garety

**Background**
There is concern that delaying treatment for psychosis may have a negative impact on its long-term course. A number of countries have developed early intervention teams but there is limited evidence regarding their cost-effectiveness.

**Aims**
To compare the costs and cost-effectiveness of an early intervention service in London with standard care.

**Method**
Individuals in their first episode of psychosis (or those who had previously discontinued treatment) were recruited to the study. Clinical variables and costs were measured at baseline and then at 6- and 18-month follow-up. Information on quality of life and vocational outcomes were combined with costs to assess cost-effectiveness.

**Results**
A total of 144 people were random
were £11 685 in the early interven
the standard care group, with the
significant (95% CI −£8128 to £3
combined with improved vocati
outcomes it was shown that ea
very high likelihood of being cost-effec

**Conclusions**
Early intervention did not increase costs and was highly likely to be cost-effective when compared with standard care.

**Declaration of interest**
None.

Early intervention
increase costs and
highly likely to be c
effective when comp
with standard care.

LSE PSSRU

Centre for Mental Health

Institute of Psychiatry at The Maudsley, King's College London

# Mental health promotion and mental illness prevention:

# The economic case

**Martin Knapp, David McDaid and Michael Parsonage (editors)**

**Personal Social Services Research Unit,**
**London School of Economics and Political Science**

**January 2011**

**Report to be published by the Department of Health, London**

DH Department of Health

Article

# Long-Term Follow-Up of the TIPS Early Detection in Psychosis Study: Effects on 10-Year Outcome

Wenche ten Velden Hegelstad, M.Sc.

Tor K. Larsen, M.D., Ph.D.

Bjørn Auestad, Ph.D.

Julie Evensen, M.D.

Ulrik Haahr, M.D.

Inge Joa, Ph.D.

Jan O. Johannesen, M.D., Ph.D.

Johannes Langeveld, Ph.D.

Ingrid Melle, M.D., Ph.D.

Stein Opjordsmoen, M.D., Ph.D.

Jan Ivar Rossberg, M.D., Ph.D.

Bjørn Rishovd Rund, Ph.D.

Erik Simonsen, M.D., Ph.D.

Kjetil Sundet, Ph.D.

Per Vaglum, M.D., Ph.D.

Svein Friis, M.D., Ph.D.

Thomas McGlashan, M.D.

**Objective:** Early detection in first-episode psychosis confers advantages for negative, cognitive, and depressive symptoms after 1, 2, and 5 years, but longitudinal effects are unknown. The authors investigated the differences in symptoms and recovery after 10 years between regional health care sectors with and without a comprehensive program for the early detection of psychosis.

**Method:** The authors evaluated 281 patients (early detection, N=141) 18 to 65 years old with a first episode of nonaffective psychosis between 1997 and 2001. Of these, 101 patients in the early-detection area and 73 patients in the usual-detection area were followed up at 10 years, and the authors compared their symptoms and recovery.

**Results:** A significantly higher percentage of early-detection patients had recovered at the 10-year follow-up relative to usual-detection patients. This held true despite more severely ill patients dropping out of the study in the usual-detection area. Except for higher levels of excitative symptoms in the early-detection area, there were no symptom differences between the groups. Early-detection recovery rates were higher largely because of higher employment rates for patients in this group.

**Conclusions:** Early detection of first-episode psychosis appears to increase the chances of milder deficits and superior functioning. The mechanisms by which this strategy improves the long-term prognosis of psychosis remain speculative. Nevertheless, our findings over 10 years may indicate that a prognostic link exists between the timing of intervention and outcome that deserves additional study.

*(Am J Psychiatry Hegelstad et al.; AiA:1–7)*

Orygen YOUTH Health
Research Centre

# CURRENT THERAPEUTICS IN PSYCHOSIS/SCHIZOPHRENIA:

# LOW EXPECTATIONS - WEAK DELIVERY

**Sequence**

**Mix and Balance**

**Engagement and Tenure**

**Culture**

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- "In the early 21st century, the goal of treatment in FEP must be to pursue as full a functional recovery as possible. This means a meaningful life with vocational recovery, positive relationships, social inclusion and good physical health. The worldwide development of specialized early psychosis care is based on these goals. As with cancer, and chronic disease generally, early detection and sophisticated use of the existing therapeutic armentarium, even without dramatic breakthroughs, can not only save and extend lives, but facilitate many more recoveries. The "soft bigotry of low expectations" in psychosis is under serious challenge. Many would now contend that much of the poor outcome in psychosis is an artefact of late detection, crude and reactive pharmacotherapy, sparse psychosocial care, and social neglect. Despite 60 years of antipsychotic medications it is only now becoming clearer how best to use these medications to maximize recovery."
- ***McGorry, Alvarez, Killackey, In Press***

*Psychological Medicine* (2012), **42**, 595–606. © Cambridge University Press 2011
doi:10.1017/S0033291711001504

ORIGINAL ARTICLE

# Road to full recovery: longitudinal relationship between symptomatic remission and psychosocial recovery in first-episode psychosis over 7.5 years

**M. Álvarez-Jiménez[1,2]*, J. F. Gleeson[2,3], L. P. Henry[1,2], S. M. Harrigan[1,2], M. G. Harris[4], E. Killackey[1,2], S. Bendall[1,2], G. P. Amminger[1,2,5], A. R. Yung[1,2], H. Herrman[1,2], H. J. Jackson[6] and P. D. McGorry[1,2]**

[1] *Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia*
[2] *Orygen Youth Health Research Centre, Melbourne, Australia*
[3] *Australian Catholic University, Department of Psychology, Melbourne, Australia*
[4] *School of Population Health, The University of Queensland, Brisbane, Australia*
[5] *Department of Child and Adolescent Psychiatry, Medical University of Vienna, Austria*
[6] *The Department of Psychology, The University of Melbourne, Melbourne, Australia*

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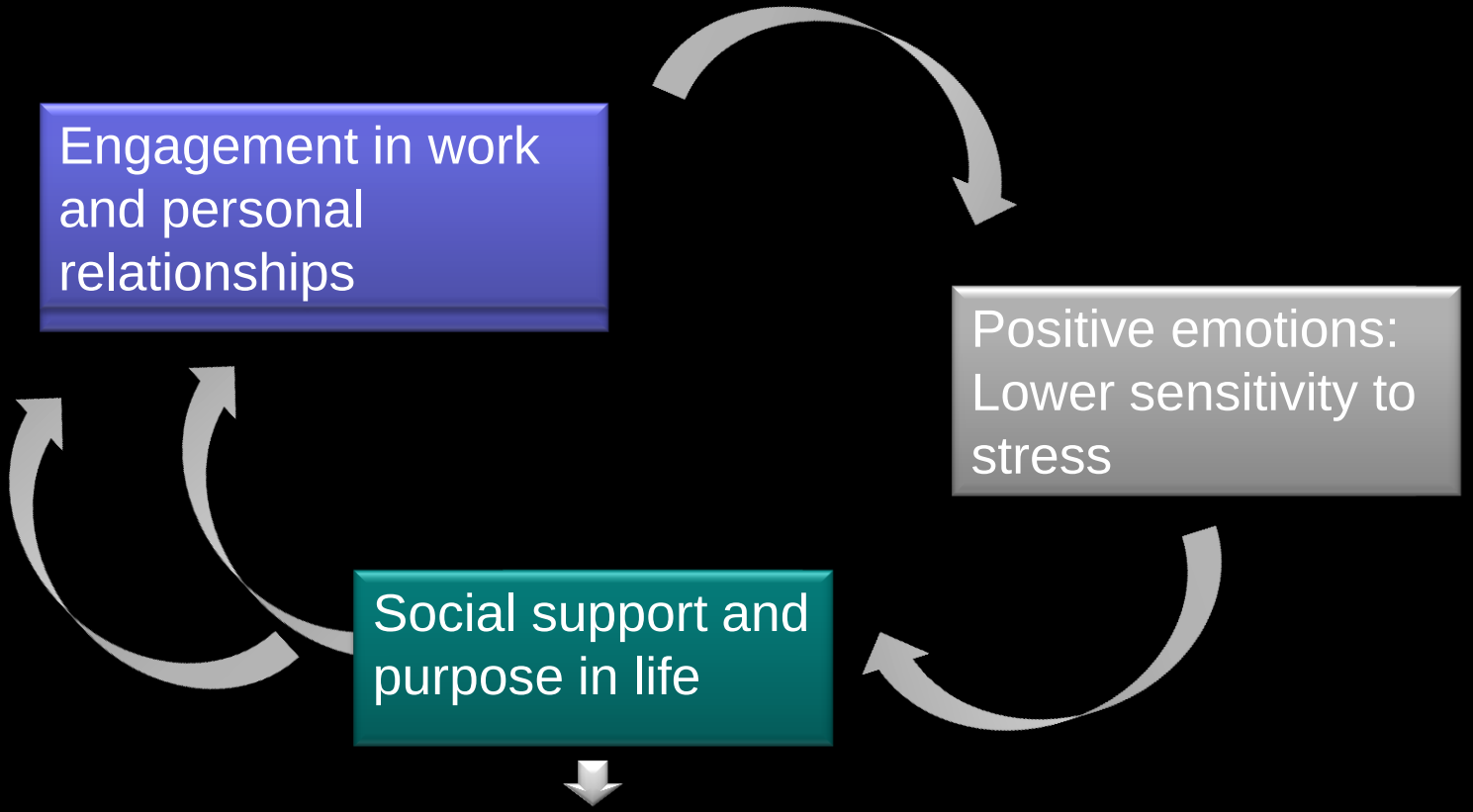
# Key findings: *early functional recovery predicts long-term recovery independently of symptomatic remission*

- **31%** of those who achieved **full functional recovery** (FFR) at both 14 months and 7.5 years failed to meet **remission criteria** at 14 months

- Only **14%** of those who attained **symptomatic remission** at 8 months and failed to achieve **full functional recovery** at 14 months went on to **fully recover** at 7.5 years

- Of those achieving FFR at 7.5 years **61%** had **not** been taking **antipsychotic meds** during previous 2 years

# Road to Full Recovery




**Reduced stress and depression**
**Reduced risk of cognitive decline**

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BJPsych | The British Journal of Psychiatry (2008)
193, 114–120. doi: 10.1192/bjp.bp.107.043109

# Vocational intervention in first-episode psychosis: individual placement and support *v.* treatment as usual

Eóin Killackey, Henry J. Jackson and Patrick D. McGorry

**Background**
Unemployment is a major problem for people with first-episode psychosis and schizophrenia. This has repercussions for the economy, social functioning and illness prognosis.

**Aims**
To examine whether a vocational intervention – individual placement and support (IPS) – which has been found to be beneficial in populations with chronic schizophrenia, was a useful intervention for those with first-episode psychosis.

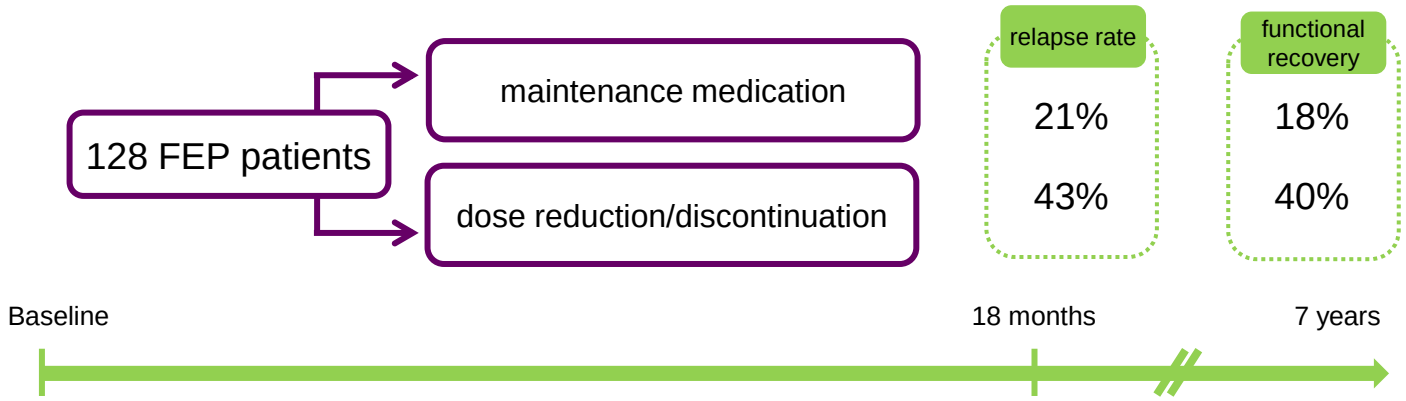
(median 38 *v.* 7
longevity of em
IPS group also
benefits.

**Conclusion**
Individual pl
address the
first-episode psychosis.

The results of this study and that of Nuechterlein et al 2008 suggest that vocational interventions co-located with and delivered as part of a complete approach to symptomatic and functional recovery produce superior vocational outcomes with an increase from 50% to 85% vocational recovery

# Medication strategies to promote functional recovery

- New evidence suggests that minimizing antipsychotic load during the recovery phase allows for optimal functional recovery, despite the increased risk of relapse




Wunderink et al., JAMA Psychiatry, in press

# KEY MESSAGES

- Positive symptom control is a desirable means to an end, but must not be the sole or dominant target or goal of care
- If becomes the ***sole*** target then outcomes can be worse not better
- Other outcomes crucial and must have serious interventions to target them: "F words"
  - **Functioning:** Vocational Intervention
  - **Fulfillment:** Positive Psychology
  - **Financial**: Work and financial planning
  - **Fun:** Positive Psychology
  - **Family:** Peer support
  - **Fysical health:** Preventive medical care
  - **Focus on other syndromes** esp anxiety, depression, PTSD, SUD and PD: Specialised interventions
  - Maximum **personal choice** also crucial

MJA
The Medical Journal of Australia

19 NOVEMBER 2012 · VOLUME 197 · NO 10

## Landmark legislation

Plain packaging comes into play

The thinking doctor's journal

# Picking health care winners

## Making the best of finite resources



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# Early intervention for psychosis (Review)

Marshall M, Rathbone J

THE COCHRANE COLLABORATION®

# At Issue: Cochrane, Early Intervention, and Mental Health Reform: Analysis, Paralysis or Evidence-Informed Progress?

**Patrick McGorry***

*To whom correspondence should be addressed; e-mail: pmcgorry@unimelb.edu.au

**Among the noncommunicable diseases, mental ill-health represents the major threat to social and economic progress because it impacts so powerfully on the most critical decades of life. Consequently, mental health reform is increasingly recognized as an urgent priority worldwide. This brings into sharp focus the role of evidence, and more specifically the Cochrane paradigm, in influencing decisions about health system reform. Cochrane clearly still has great value, especially in evidence-based medicine, where the focus is the evaluation of individual treatments. However, it cannot be allowed to be a dominant influence in**

lop-sided and self-defeating allocation of the health dollar continues despite the fact that 75% of mental ill-health emerges before the age of 25 years, and its disabling and life shortening impact blights the prime productive years of life, causes untold misery, and weakens and diminishes society socially and economically. The recent report on noncommunicable diseases from the World Economic Forum graphically illustrates this in calculating that mental illness will, using 3 different forms of analysis, be the major contributor to the erosion of GDP over the next 20 years.[2] We urgently need much more research in pre-

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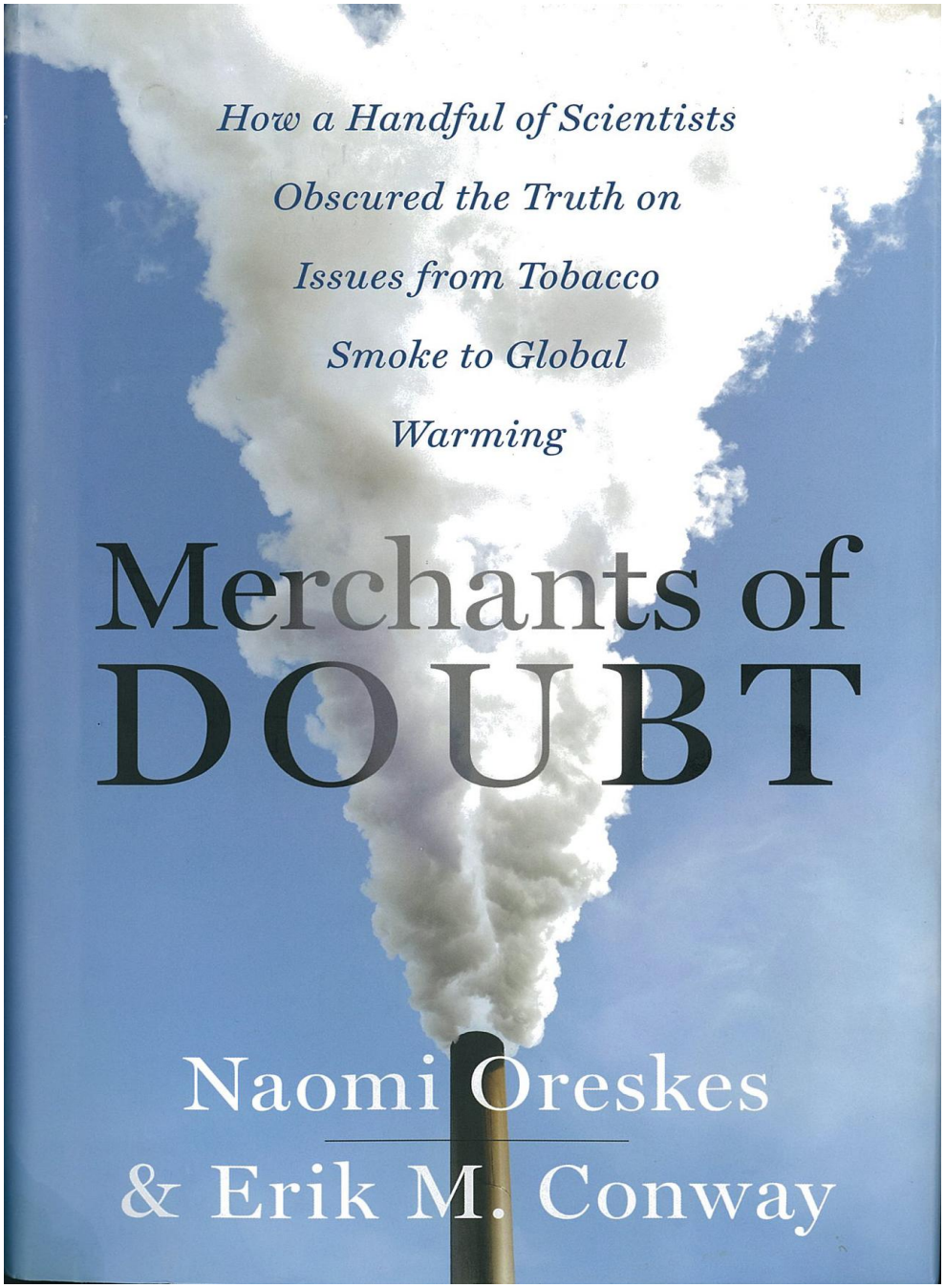
McGorry, Schizophrenia Bulletin 2012

# Sceptics and Deniers
# Faith vs Fact

- Healthy Scepticism and the Scientific Method
- Late Adopters
- Merchants of Doubt (Oreskes 2010)
  - Ideological
  - Vested Interests


How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming
Merchants of DOUBT
Naomi Oreskes
& Erik M. Conway

# HEALTHY SCEPTICS, LATE ADOPTERS, or MERCHANTS OF DOUBT?

*Psychological Medicine* (2010), 40, 353–358. © Cambridge University Press 2009
doi:10.1017/S0033291709990341

EDITORIAL

## Early intervention in psychotic disorders: faith before facts?

**P. Bosanac[1], G. C. Patton[2] and D. J. Castle[3]***

[1] *The University of Melbourne, Melbourne, Australia*
[2] *Centre for Adolescent Health, Royal Children's Hospital; Murdoch Childrens Research Institute; and Department of Paediatrics, The University of Melbourne, Melbourne, Australia*
[3] *St Vincent's Health and The University of Melbourne, Melbourne, Australia*

This paper reviews the literature on early intervention in psychotic disorders, weighs the cons of this approach, and makes suggestions for clinicians and researchers regarding how to interpret and respond to what is still an embryonic evidence-base, notably in terms of any long-term benefits.

*Received 23 April 2009; Revised 30 April 2009; Accepted 19 May 2009; First published online 2 July 2009*

**Key words:** Antipsychotics, early intervention, high risk, schizophrenia.

*Psychological Medicine* (2009), **39**, 1–6. © Cambridge University Press 2009
doi:10.1017/S0033291709991346

COMMENTARY

# Early intervention in psychosis: keeping faith with evidence-based health care

A commentary on: 'Early intervention in psychotic disorders: faith before facts?' by Bosanac *et al.* (2009)

**P. McGorry[1]*, J. O. Johanessen[2], S. Lewis[3], M. Birchwood[4], A. Malla[5], M. Nordentoft[6], J. Addington[7] and A. Yung[1]**

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*Received 22 May 2009; Revised 3 August 2009; Accepted 8 August 2009*

Orygen Youth Health Research Centre

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*Debate*

ANZJP

# The truth, and nothing but the truth, about early intervention in psychosis

**David I Castle**

*Australian & New Zealand Journal of Psychiatry*
46(1) 10–13
DOI: 10.1177/0004867411432553



*Debate*

ANZJP

# Early intervention in psychosis: evidence, evidence gaps, criticism, and confusion

**Alison R Yung**

*Australian & New Zealand Journal of Psychiatry*
46(1) 7–9
DOI: 10.1177/0004867411432205



*Viewpoint*

ANZJP

# Truth and reality in early intervention

**Patrick McGorry**

*Australian & New Zealand Journal of Psychiatry*
00(0) 1–4
DOI: 10.1177/0004867412442172

# Debate: Does Early Intervention Help or Hinder Mental Health Outcomes?

## POINT

### Seven Questions for Professor Patrick McGorry

I have written several times about the charismatic psychiatrist, Patrick McGorry, who was recently chosen to be Australia's Man of the Year. Professor McGorry had convinced the Australian government to spend do their worst damage.

The great news is that Professor McGorry has recently renounced the relevance of psychosis risk syndrome in the current practice of clinical psychiatry. He has done so in 2 separate and dramatic ways: by withdrawing his support for the inclusion of psychosis risk in DSM-5 and by promising not to include it as a target in Australia's massive new experiment in early intervention.[2] Psychosis risk syndrome is an the world and an absolutely brilliant politician. Leveraging his unique stature as 2010 "Australian of the Year," McGorry has succeeded in gaining the support of all the major Australian political parties in the funding of a large and much needed investment in the country's mental health. His new caution on psychosis risk will influence others to be less venturesome in prematurely promoting this potentially dangerous diagnostic proposal.

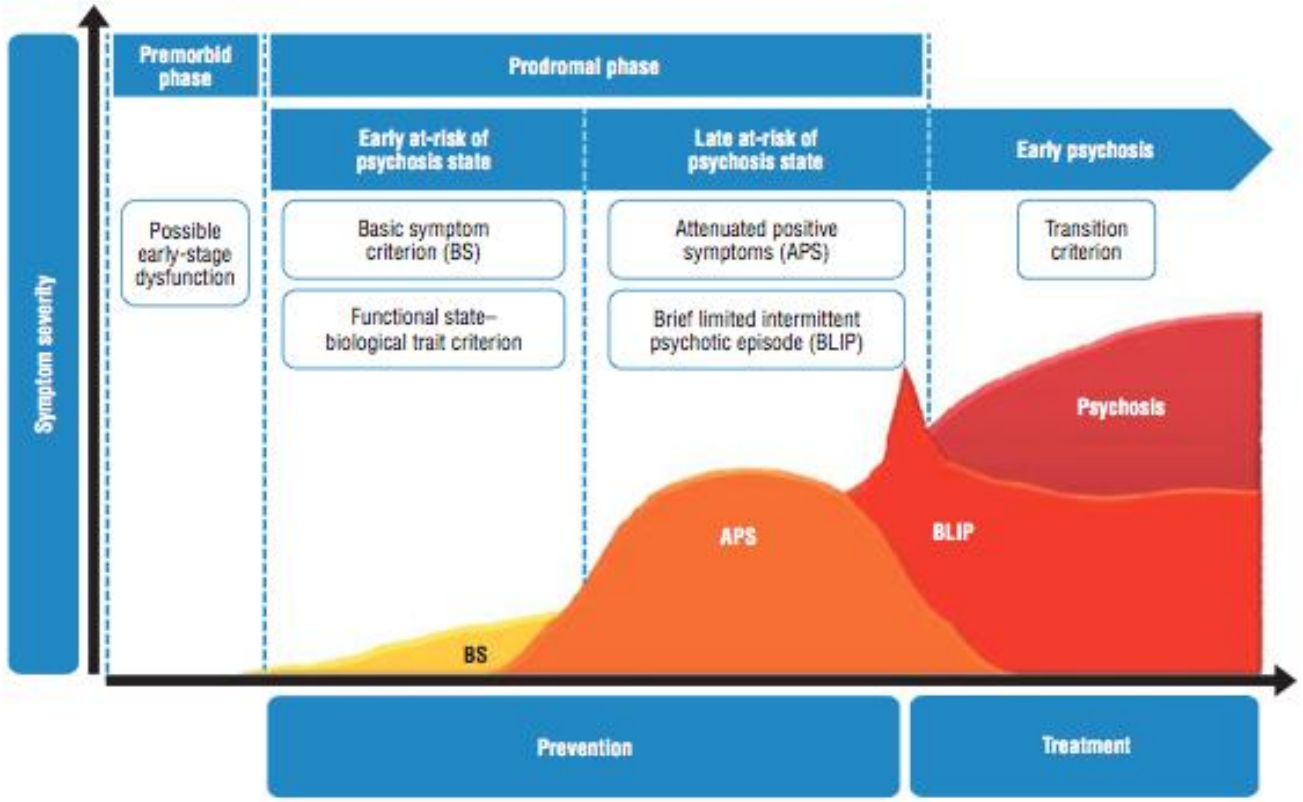
its expertise in all aspects of scientific review. Its reports are considered a gold standard, exerting great influence on state-of-the-art, evidence-based medical practice throughout the world, particularly in Great Britain. One might expect that Cochrane's stainless reputation would daunt a person even of Professor McGorry's extraordinary power and blind conviction.

But no. When the Cochrane report disappoints his expectations

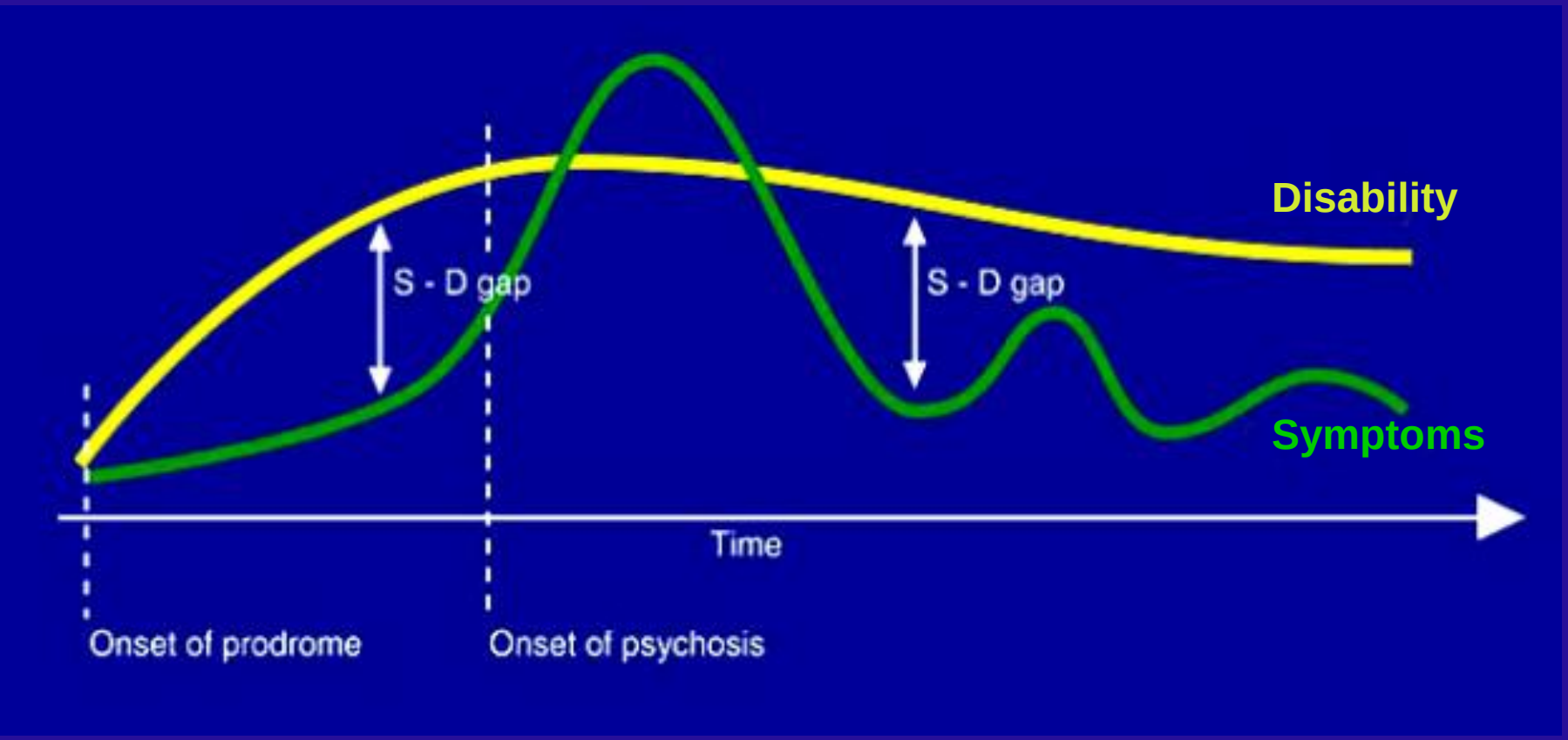
# THE PSYCHOSIS RISK/APS CONTROVERSY

"I'm afraid you've got cows, Mr. Farnsworth."

# UHR/Prodrome/Onset of Psychosis

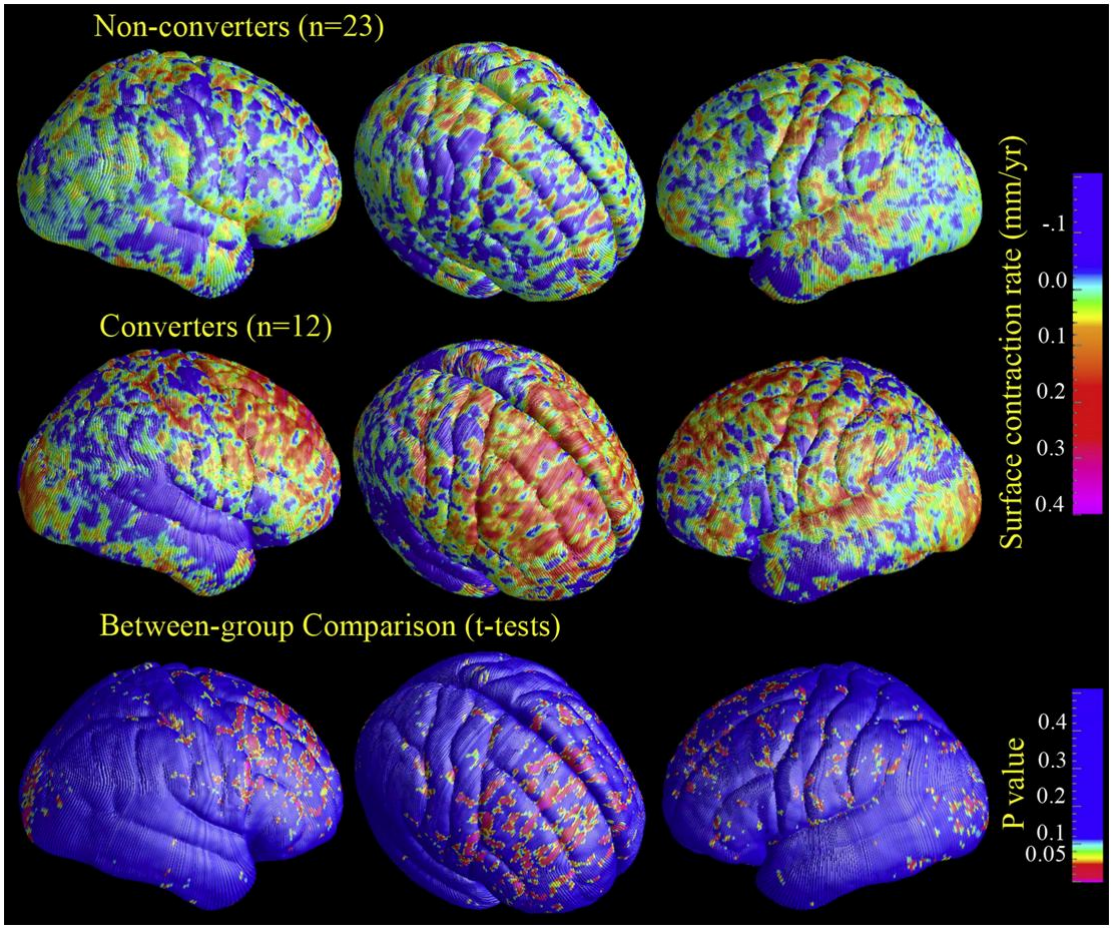


# Symptom-Disability Gap in Early Psychosis




- Providing access during usually prolonged phase when major psychosocial disability develops (Agerbo et al 2003)

# Average brain surface contraction rates in converters and non-converters (Sun et al 2008)

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# ATTRACTIONS and ADVANTAGES for PREPSYCHOTIC INTERVENTION

- Enabling access and intervention as soon as “need for care” and help-seeking occur not until some arbitrary threshold reached
- If sustained psychosis develops DUP kept to a minimal level
- Engagement and trust developed before severe psychosis impairs insight
- Prevention of “collateral damage” including suicidal behaviour, substance abuse, vocational failure, social exclusion, family stress, forensic problems.
- Attenuation and perhaps prevention of psychosis and schizophrenia in some cases
- Key concept: Primary prevention of secondary disorder(s)  (Kessler)

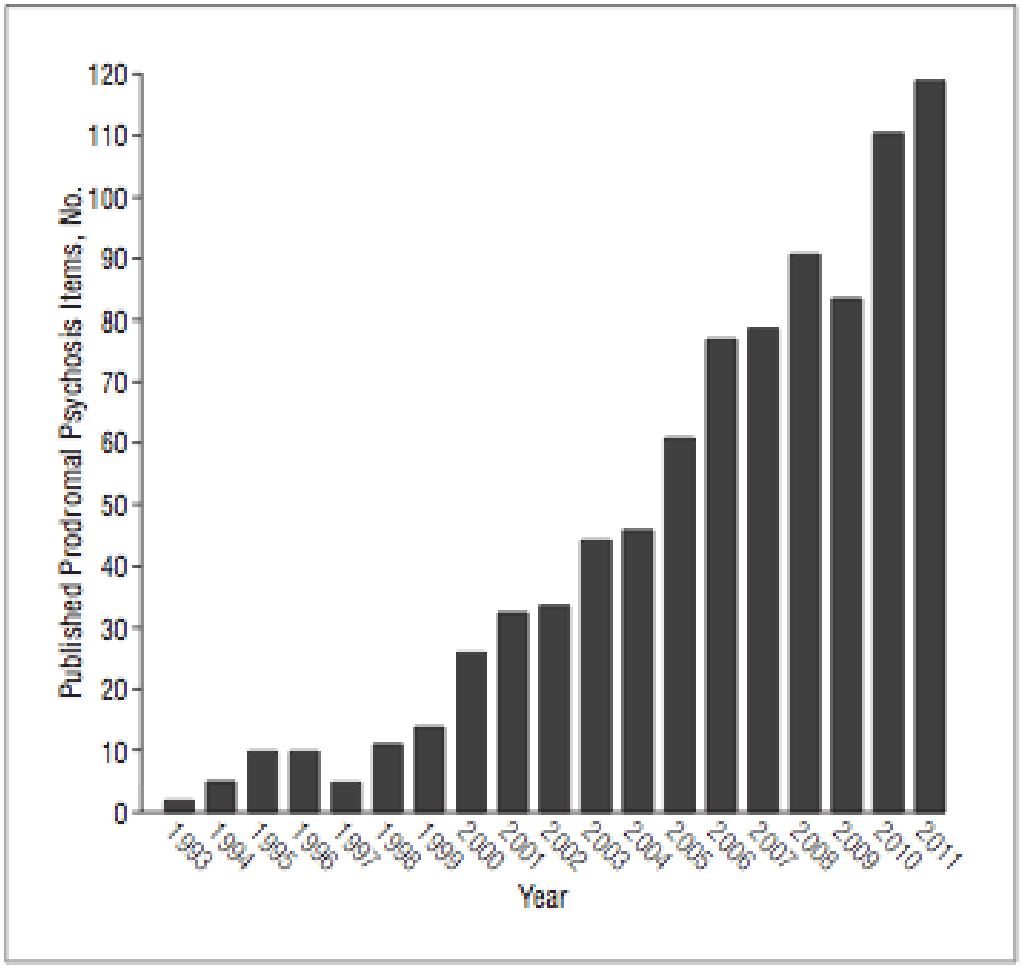


**Figure 1.** Prodromal psychosis items published in each year across the electronic databases. The literature search is updated to December 2011.

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# POTENTIAL OBSTACLES TO PREPSYCHOTIC INTERVENTION

- **FALSE POSITIVES** with potential iatrogenic harm

- Stigma: enhanced by fear of “schizophrenia” and the reality of “standard care”

  Solutions: youth friendly stigma-free environments plus positive early psychosis back up systems
- Self stigmatisation and worry
- Over-treatment: esp unnecessary antipsychotic treatment with metabolic and other issues (Ho et al 2011;Lewis 2011)
- Falling rate of true positives magnifies some of these problems

- **“INACCESSIBLE” POSITIVES** 90%!

  (unaware, reluctant or unrecognised) Yet increased efforts to find them may reduce the “true” positive rate

“We want to know… what to ask to split clearly between the people who are having trouble in living and the people who are in grave risk of serious psychosis”

– Harry Stack Sullivan (1938)

To achieve this maybe we really need to firstly distinguish between those who are NOT having trouble in living and those who are?

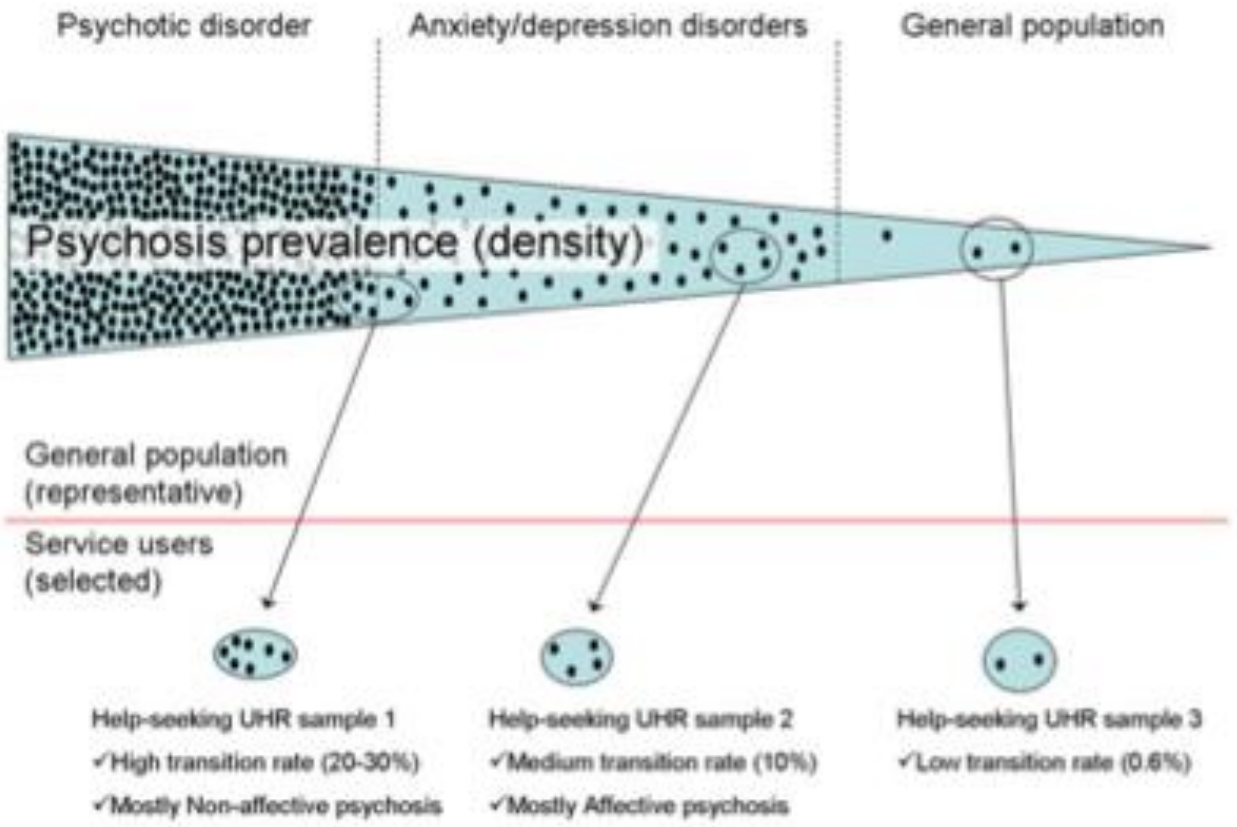
# J M B

## journal of mundane behavior


TLER
DAMAGED
GLOBE ELEC.SI
108 WEST 11TH ST.- CHI

# The Extended Psychosis Phenotype

## (van Os and Linscott (2012)

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# PREDICTION OF TRANSITION

ARE THE TERMS UHR, CHR or PRS JUSTIFIED?


ARRIVALS
FLIGHT FROM TIME DEPARTS TIME ARRIVES ODDS
62 CHICAGO 8:04 10:20 3-1
104 DETROIT 8:30 10:50 5-3
205 PHILADELPHIA 10:05 11:30 9-5
96 PITTSBURGH 11:17 12:40 4-1
329 HOUSTON 12:04 2:15 15-1
51 LOS ANGELES 12:40 4:05 26-1
126 DALLAS 1:15 4:30 18-1
31 BOSTON 3:20 5:15 3-2
241 DENVER 4:30 7:30 12-5
180 ST PAUL 7:40 9:25 10-1

# Predicting Psychosis

## *Meta-analysis of Transition Outcomes in Individuals at High Clinical Risk*

*Paolo Fusar-Poli, MD, PhD; Ilaria Bonoldi, MD; Alison R. Yung, PhD; Stefan Borgwardt, PhD; Matthew J. Kempton, PhD; Lucia Valmaggia, PhD; Francesco Barale, PhD; Edgardo Caverzasi, PhD; Philip McGuire, PhD*

**Context:** A substantial proportion of people at clinical high risk of psychosis will develop a psychotic disorder over time. However, the risk of transition to psychosis varies between centers, and some recent work suggests that the risk of transition may be declining.

**Objective:** To quantitatively examine the literature to date reporting the transition risk to psychosis in subjects at clinical high risk.

**Data Sources:** The electronic databases were searched until January 2011. All studies reporting transition risks in patients at clinical high risk were retrieved.

**Study Selection:** Twenty-seven studies met the inclusion criteria, comprising a total of 2502 patients.

**Data Extraction:** Transition risks, as well as demographic, clinical, and methodologic variables, were extracted from each publication or obtained directly from its authors.

**Data Synthesis:** Th[illegible]tion risk, independent of [illegible] psychometric instruments [illegible], of 18% after 6 m[illegible]ths of follow-up, 22% after 1 year, [illegible]9% after 2 years, a[illegible] 36% after 3 years. Significant mo[illegible]ra-tors accounting [illegible] heterogeneity across studie[illegible]d in-fluencing the transiti[illegible]ge of partici-pants, publication year, treatments received, and diagnostic criteria used. There was no publication bias, and a sensitivity analysis confirmed the robustness of the core findings.

**Conclusions:** The state of clinical high risk is associated with a very high risk of developing psychosis within the first 3 years of clinical presentation, and the risk progressively increases across this period. The transition risk varies with the age of the patient, the nature of the treatment provided, and the way the syndrome and transition to psychosis are defined.

*Arch Gen Psychiatry. 2012;69(3):220-229*

# Parity vs Stigma?

## Diabetes 1

### Prediabetes: a high-risk state for diabetes development

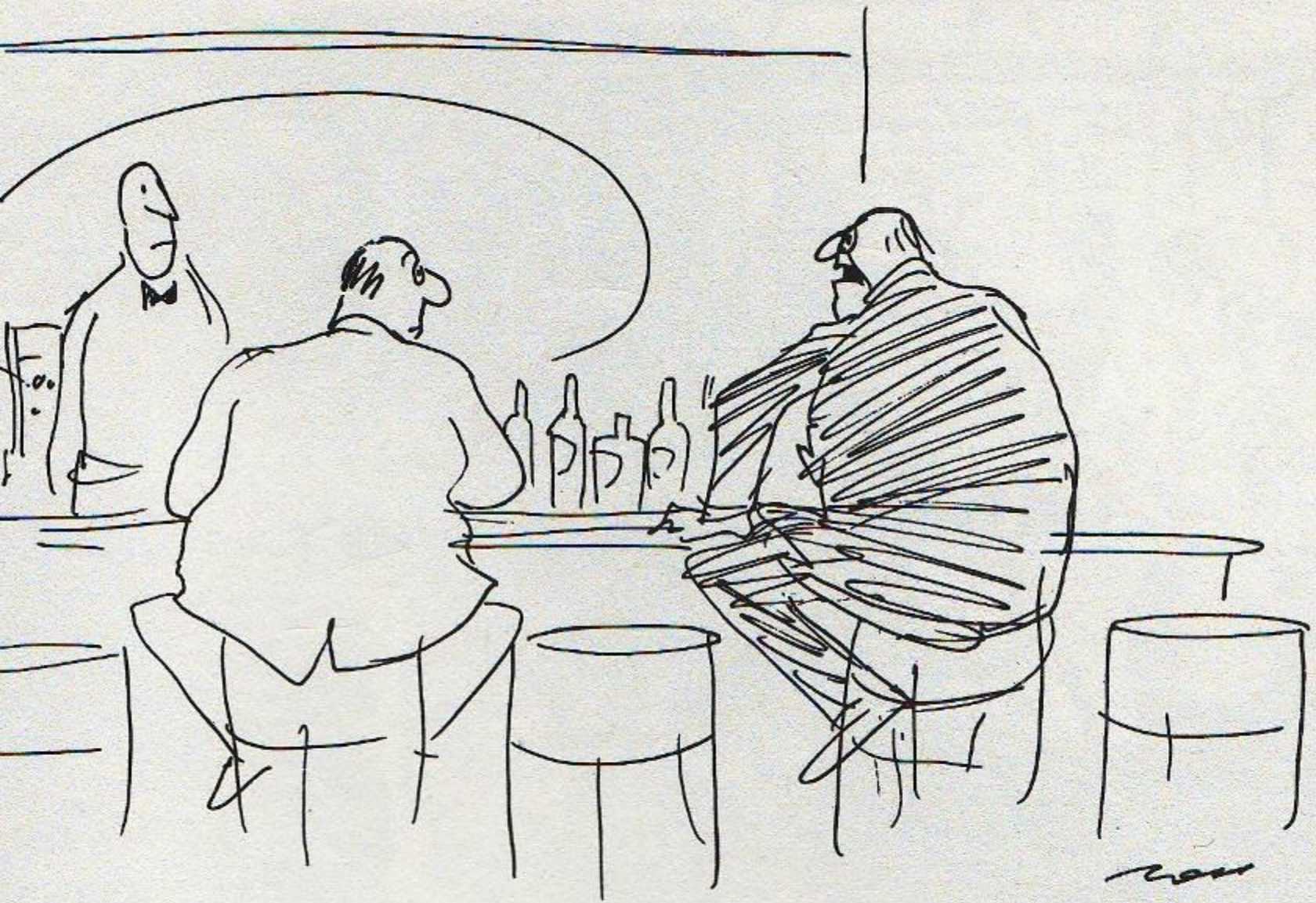
*Adam G Tabák, Christian Herder, Wolfgang Rathmann, Eric J Brunner, Mika Kivimäki*

**Prediabetes (intermediate hyperglycaemia) is a high-risk state for diabetes that is defined by glycaemic variables that are higher than normal, but lower than diabetes thresholds. 5–10% of people per year with prediabetes will progress to diabetes, with the same proportion converting back to normoglycaemia. Prevalence of prediabetes is increasing worldwide and experts have projected that more than 470 million people will have prediabetes by 2030. Prediabetes is associated with the simultaneous presence of insulin resistance and β-cell dysfunction—abnormalities that start before glucose changes are detectable. Observational evidence shows associations between prediabetes and early forms of nephropathy, chronic kidney disease, small fibre neuropathy, diabetic retinopathy, and increased risk of macrovascular disease. Multifactorial risk scores using non-invasive measures and blood-based metabolic traits, in addition to glycaemic values, could optimise estimation of diabetes risk. For prediabetic individuals, lifestyle modification is the cornerstone of diabetes prevention, with evidence of a 40–70% relative-risk reduction. Accumulating data also show potential benefits from pharmacotherapy.**

Published Online
June 9, 2012
DOI:10.1016/S0140-6736(12)60283-9

This is the first in a Series of three papers about diabetes

Department of Epidemiology and Public Health, University College London, London, UK (A G Tabák MD, E J Brunner PhD, Prof M Kivimäki PhD);
1st Department of Internal Medicine, Faculty of Medicine,



*"What do you mean 'Your guess is as good as mine'?*
*My guess is a hell of a lot <u>better</u> than your guess!"*

# Clinical Predictors of Psychosis (Yung et al 2004,2005)

Entry criteria plus one of "top four" variables to predict 6-month and 1-year psychotic status

| | Sensitivity | Specificity | Positive Predictive Value | Negative Predictive Value |
|---|---|---|---|---|
| 6 months | 62.1 | 89.3 | 69.2 | 85.9 |
| 1 year | 58.3 | 92.6 | 80.8 | 80.8 |

# Validity of the Prodromal Risk Syndrome for First Psychosis: Findings From the North American Prodrome Longitudinal Study

**Scott W. Woods[1,2], Jean Addington[3], Kristin S. Cadenhead[4], Tyrone D. Cannon[5], Barbara A. Cornblatt[6], Robert Heinssen[7], Diana O. Perkins[8], Larry J. Seidman[9], Ming T. Tsuang[4,9], Elaine F. Walker[10], and Thomas H. McGlashan[2]**

[2]Department of Psychiatry, Yale University, New Haven, CT; [3]Department of Psychiatry, University of Calgary, Calgary, Alberta, Canada; [4]Department of Psychiatry, University of California, San Diego, CA; [5]Departments of Psychology and Psychiatry and Biobehavioral Sciences, University of California, Los Angeles, CA; [6]Department of Psychiatry, Zucker Hillside Hospital, Long Island, NY; [7]Schizophrenia Spectrum Disorders Research Program, Division of Adult Translational Research, National Institute of Mental Health, Bethesda, MD; [8]Department of Psychiatry, University of North Carolina, Chapel Hill, NC; [9]Department of Psychiatry, Harvard Medical School, Boston, MA; [10]Departments of Psychology and Psychiatry, Emory University, Atlanta, GA

**prodromals on multiple measures, consistent with SPD in young patients possibly being an independent risk syndrome for psychosis. The strong evidence of diagnostic validity for the prodromal risk syndrome for first psychosis raises the question of its evaluation for inclusion in *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition).**

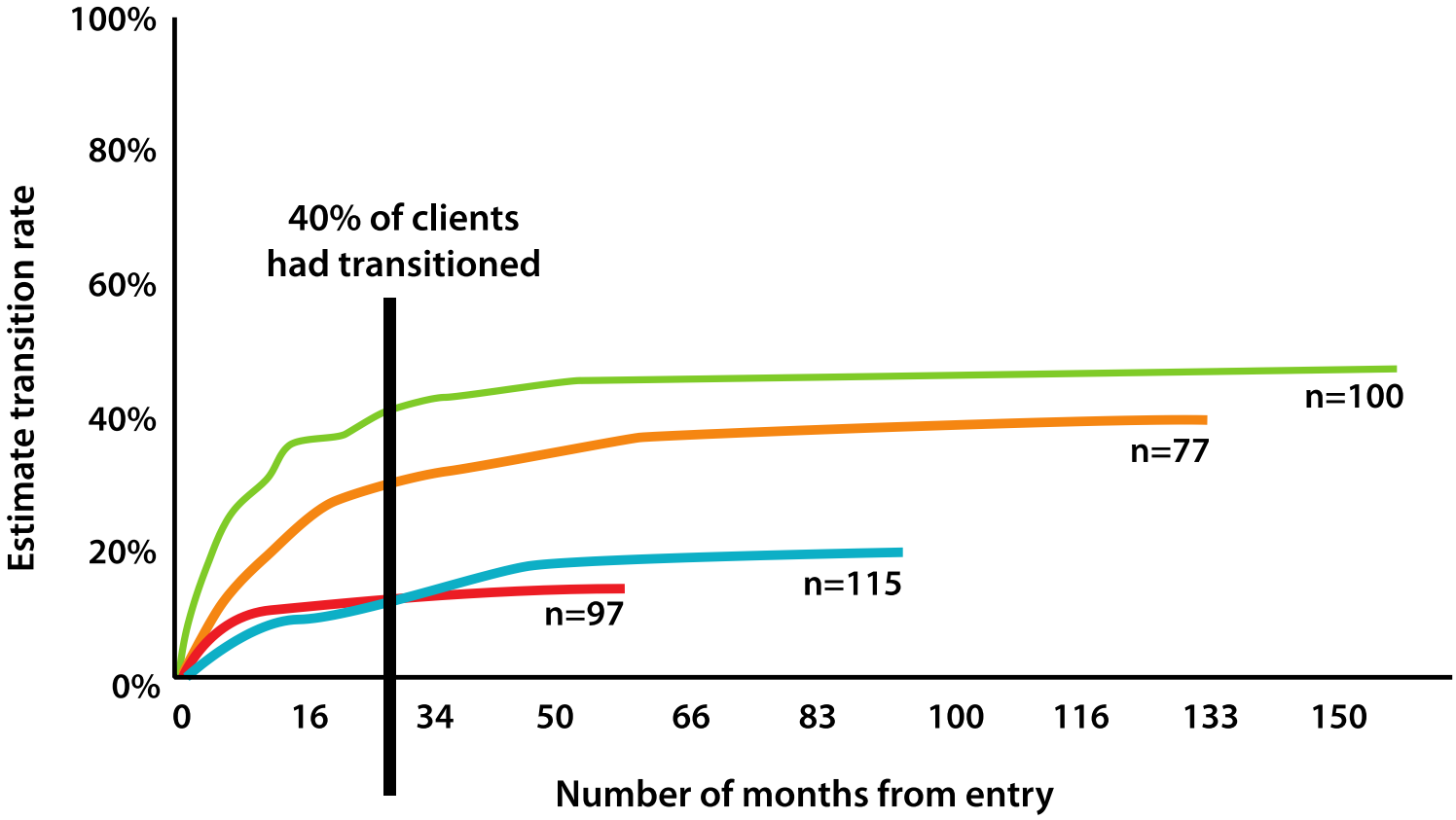
*Key words:* prodrome/risk syndrome/psychosis/schizophrenia/schizotypy

A prodrome has been defined as "an early or premonitory manifestation of impending disease, before specific symptoms begin,"[1] and a prodrome of schizophrenia has been described since the time of Bleuler.[2] So defined, a prodrome for schizophrenia can be identified only in

# CANNON et al 2007 NAPLS 1

- Prediction algorithms incorporating combinations of three baseline variables (genetic risk for schizophrenia with recent functional decline, higher levels of unusual beliefs or suspiciousness, and greater social impairment) resulted in dramatic increases in positive predictive power (74-81%) compared to SIPS criteria alone (35%)

# Survival curve by intake-year cohorts

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# POSSIBLE REASONS FOR REDUCED TRANSITION RATE

## H1: Dilution effect due to sampling?

- GAF has not increased and indicates help seekers are in need of care (mean GAF=54)
- Numbers of referred cases to OYH has doubled (1000 -2000) per annum
- ?Less enriched sample i.e. true positive base rate less

## H2: Increased effectiveness of treatment?

## H3: Earlier detection of UHR cases?

- Mean duration of UHR symptoms is 46 days now vs 560 days at beginning of research in 1990's

# INTERVENTION STUDIES IN UHR PATIENTS

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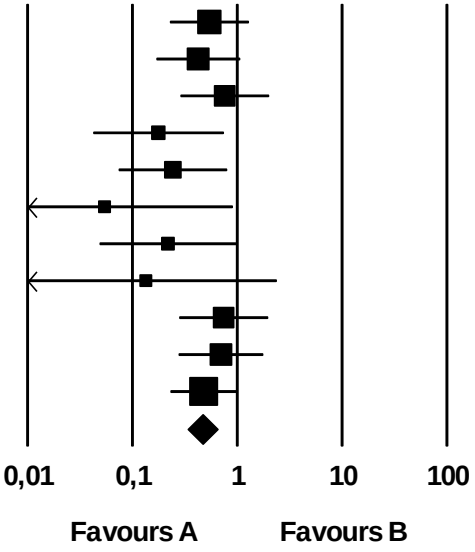
# Van der Gaag et al

| Study name | Risk ratio | Lower limit | Upper limit | Z-Value | p-Value |
|---|---|---|---|---|---|
| McGorry, 2002 | 0,542 | 0,226 | 1,298 | -1,374 | 0,169 |
| McGlashan, 2006 | 0,425 | 0,168 | 1,076 | -1,806 | 0,071 |
| Yung, 2012 | 0,760 | 0,285 | 2,026 | -0,549 | 0,583 |
| Amminger, 2008 | 0,177 | 0,042 | 0,750 | -2,350 | 0,019 |
| Nordentoft, 2006 | 0,243 | 0,073 | 0,805 | -2,315 | 0,021 |
| Bechdolf, 2012 | 0,054 | 0,003 | 0,913 | -2,023 | 0,043 |
| Morrison, 2004 | 0,219 | 0,048 | 0,993 | -1,969 | 0,049 |
| Addington, 2011 | 0,134 | 0,008 | 2,404 | -1,364 | 0,173 |
| Yung, 2012 | 0,742 | 0,278 | 1,982 | -0,594 | 0,552 |
| Morrison, 2012 | 0,700 | 0,274 | 1,788 | -0,745 | 0,456 |
| Van der Gaag, 2012 | 0,478 | 0,229 | 0,998 | -1,966 | 0,049 |
| | 0,462 | 0,334 | 0,641 | -4,635 | 0,000 |

Statistics for each study

Risk ratio and 95% CI




Meta Analysis

# Van der Gaag Metanalysis

- 10 trials
- Everything works!
- NNT overall = 8 (4 -13 ) RR 54%
- CBT RR 48% NNT13
- “Early detection and intervention in people with an ultra-high risk of developing psychosis is effective. CBT has already a firm evidence base. Antidepressant medication, omega-3 fatty acid and additional psychosocial intervention need more evidence”
- Antipsychotics not first line –represents probable overtreatment….

# NEW DIRECTIONS

## INCREASE EFFICIENCY

- Undertreatment/Overtreatment Issues:
- Better Access and Enrichment with Sequential Enrichment Strategies

## BROADEN INPUTS & OUTCOME TARGETS

- Beyond the False Positive:  Multiple/Broader Outcome Targets
- Broader Pluripotential Input Criteria
- Stigma Free Zones (SFZ)
- Youth Mental Health and AOO

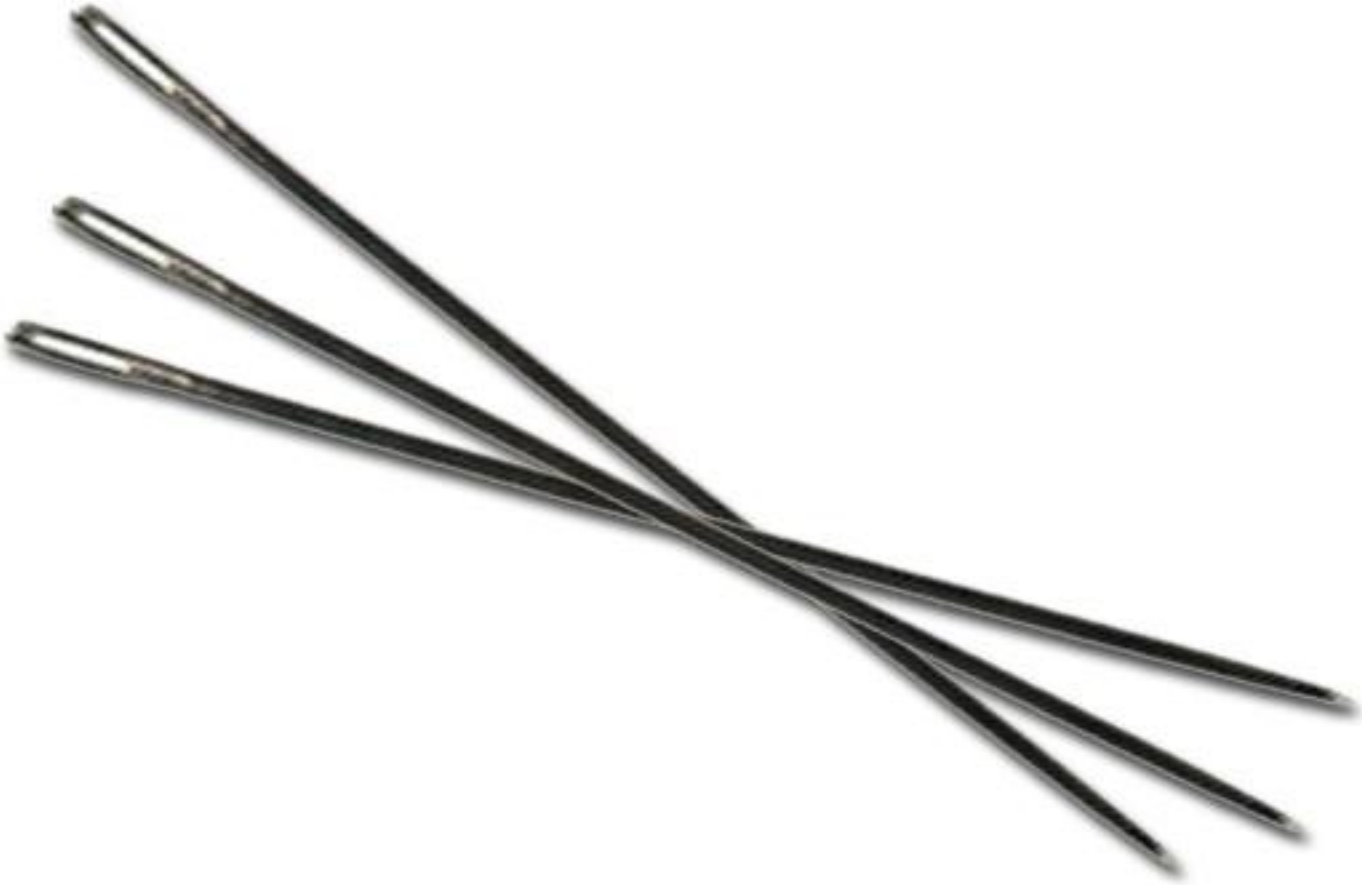
# INCREASE EFFICIENCY

## SEQUENTIAL SCREENING

**Table 4-8.** The effect of prevalence on the predictive value of an excellent sign, symptom, or laboratory test*

| Prevalence (Pretest likelihood or prior probability of disease) | 99% | 95% | 90% | 80% | 70% | 60% | 50% | 40% | 30% | 20% | 10% | 5% | 1% | 0.5% | 0.1% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Predictive value of a positive test (Posterior probability of disease following a positive test result) | 99.9% | 99.7% | 99.4% | 99% | 98% | 97% | 95% | 93% | 89% | 83% | 68% | 50% | 16% | 9% | 2% |
| Predictive value of a negative test (Posterior probability of *no* disease following a negative test result) | 16% | 50% | 68% | 83% | 89% | 93% | 95% | 97% | 98% | 99% | 99.4% | 99.7% | 99.9% | 99.97% | 99.99% |
| (Posterior probability *of* disease following a negative test result) | 84% | 50% | 32% | 17% | 11% | 7% | 5% | 3% | 2% | 1% | 0.6% | 0.3% | 0.1% | 0.03% | 0.01% |

*Both sensitivity and specificity equal 95% in every case.

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Acta Psychiatrica Scandinavica

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DOI: 10.1111/j.1600-0447.2012.01839.x



ACTA PSYCHIATRICA SCANDINAVICA

# Detection of people at risk of developing a first psychosis: comparison of two recruitment strategies

Rietdijk J, Klaassen R, Ising H, Dragt S, Nieman DH, van de Kamp J, Cuijpers P, Linszen D, van der Gaag M. Detection of people at risk of developing a first psychosis: comparison of two recruitment strategies.

**Objective:** Better recruitment strategies are needed to improve the identification of people at ultra-high risk of developing psychosis. This study explores the effectiveness of two recruitment strategies: a screening method in a consecutive help-seeking population entering secondary mental health services for non-psychotic problems vs. a population referred to the diagnostic center of an early-psychosis clinic.

**Method:** From February 2008 to February 2010, all general practitioner and self-referrals (aged 18–35 years) to the secondary mental healthcare service in The Hague and Zoetermeer were screened with the Prodromal Questionnaire; patients who scored above the cutoff of 18 and had a decline in social functioning were assessed using the Comprehensive Assessment of At-Risk Mental States (CAARMS). All referrals (aged 14–35 years) to the diagnostic center in Amsterdam were also assessed with the CAARMS.

**Results:** The screening detected a three-fold higher prevalence of at-risk mental states: these subjects were older and more often female. MANOVA showed significantly higher scores for the screened population on depression, social anxiety, distress with positive symptoms, and a higher rate of transition to psychosis within 12 months.

**Conclusion:** The screening method detects more patients with at-risk mental states than the referral method. The latter method is biased to young male patients in an earlier prodromal stage and a lower transition rate.

**Judith Rietdijk[1,2], Rianne Klaassen[3], Helga Ising[1,2], Sara Dragt[4], Dorien H. Nieman[4], Jitske van de Kamp[1,2], Pim Cuijpers[1], Don Linszen[4], Mark van der Gaag[1,2]**

[1]Department of Clinical Psychology, VU University Amsterdam and EMGO+ Institute for Health and Care Research, Amsterdam, the Netherlands, [2]Department of Psychosis Research, Parnassia Psychiatric Institute, The Hague, the Netherlands, [3]GGz Rivierduinen, Department of Children and Adolescent Care, Leiden, the Netherlands and [4]Department of Early Psychosis, Academic Medical Center, University of Amsterdam, Amsterdam, the Netherlands

Key words: early detection; at-risk mental states; ultra-high-risk screening; psychosis

Judith Rietdijk, Department of Clinical Psychology, VU University Amsterdam and EMGO+ Institute for Health and Care Research, Amsterdam, the Netherlands.
E-mail: judithrietdijk@gmail.com

Accepted for publication January 16, 2012

# EDIE-NL Study: 2 Stage Sequential Screening improves detection *and* transition rate Rietdijk et al 2012

**Den Haag (Screening PQ)**

- Population 608,000
- 52 psychosis
- 147 ARMS (prevalence 0.024)
- 12 month transition rate 22.5%

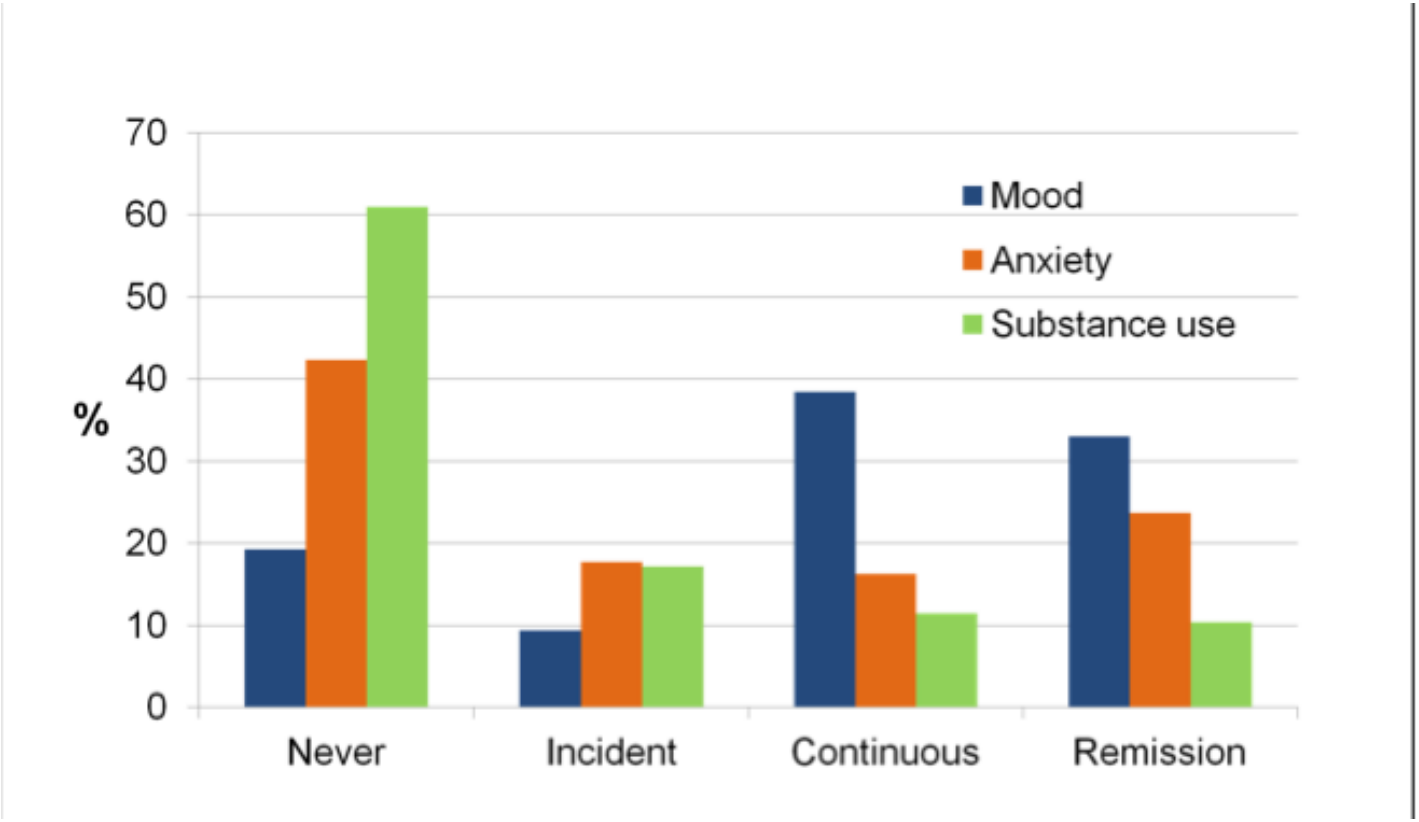
**Amsterdam (Referral)**

- Population 770,000
- 66 psychosis
- 66 ARMS (prevalence 0.008)
- 12 month transition rate 7.5%

# BROADEN INPUTS AND OUTCOME TARGETS

## CLINICAL STAGING AS HEURISTIC STRATEGY

# PACE 400 Non-psychotic Syndromes

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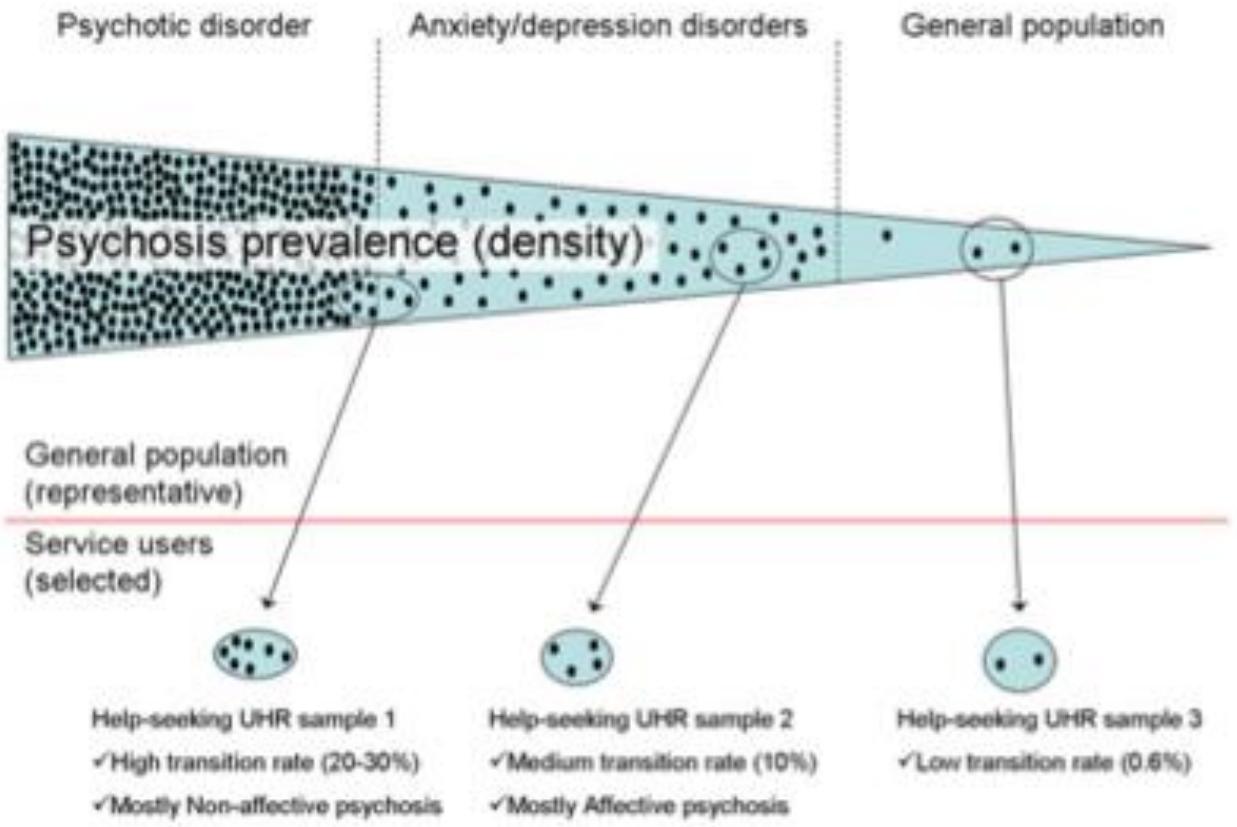
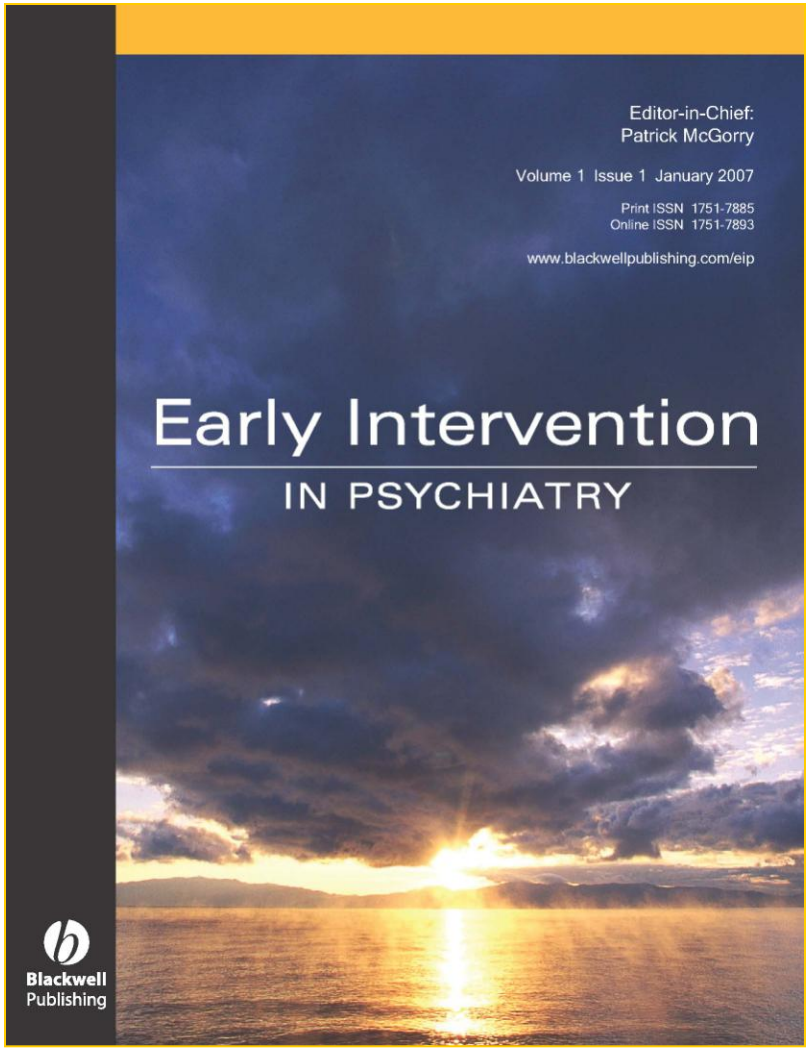
# The Extended Psychosis Phenotype

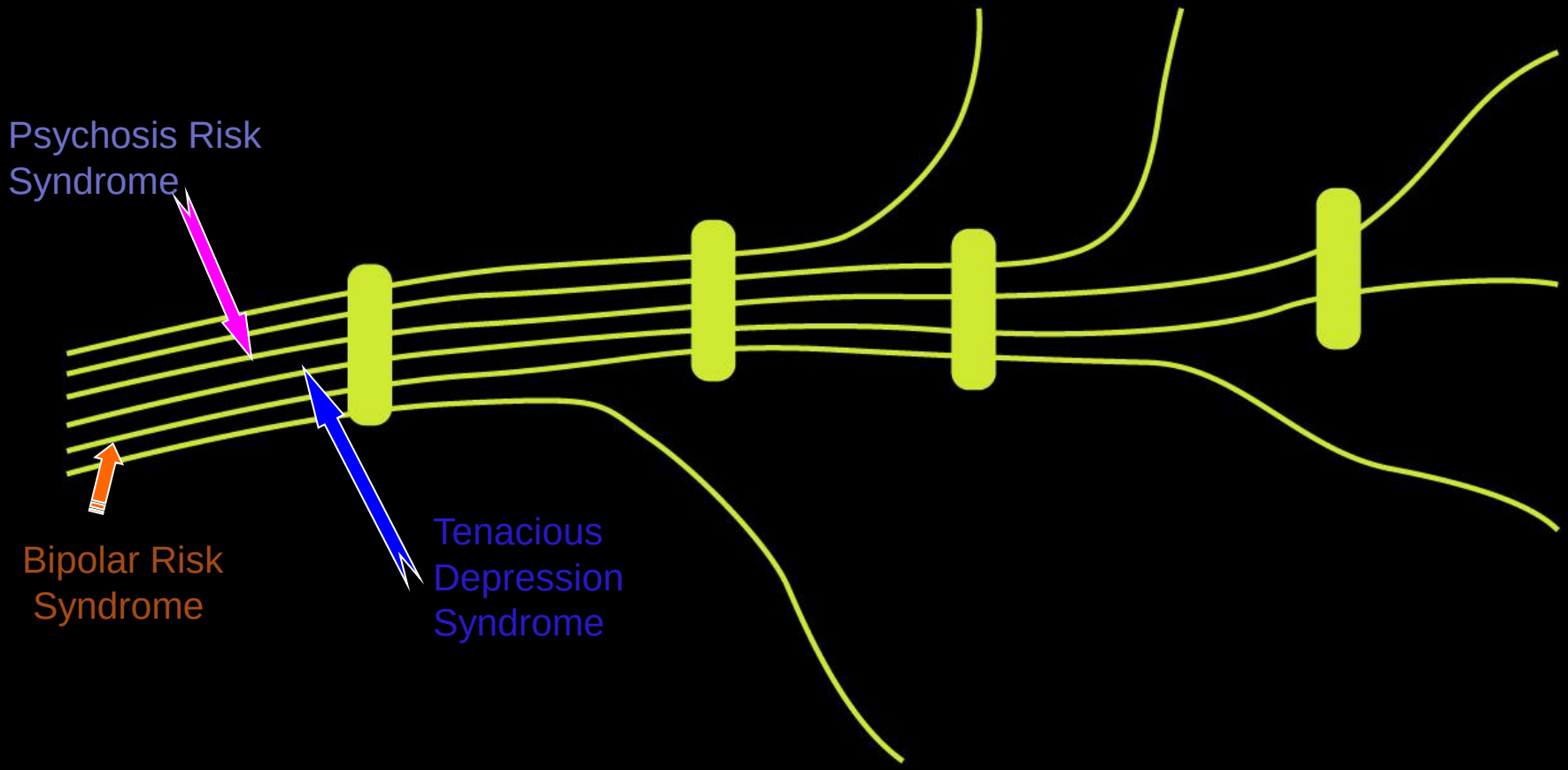
## (van Os and Linscott (2012)






**Early Intervention: A general principle in modern healthcare**

# THE GRAND DSM V RAILROAD

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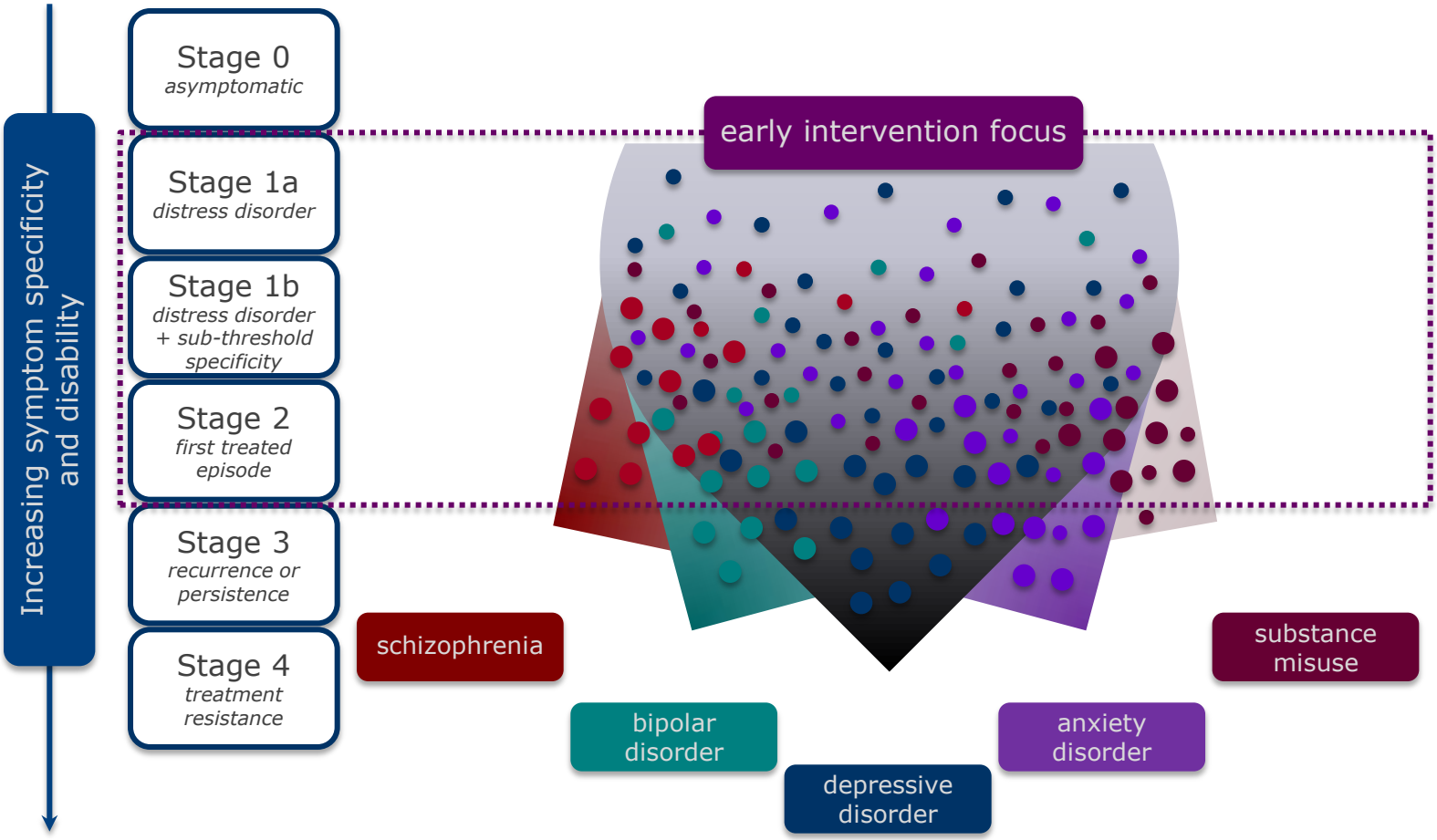
# CLINICAL STAGING:
# DIAGNOSTIC UTILITY AND STEPWISE CARE



*As the American Psychiatric Association committees begin formal work on DSM-V, we welcome brief editorials on issues that should be considered in its formulation.*

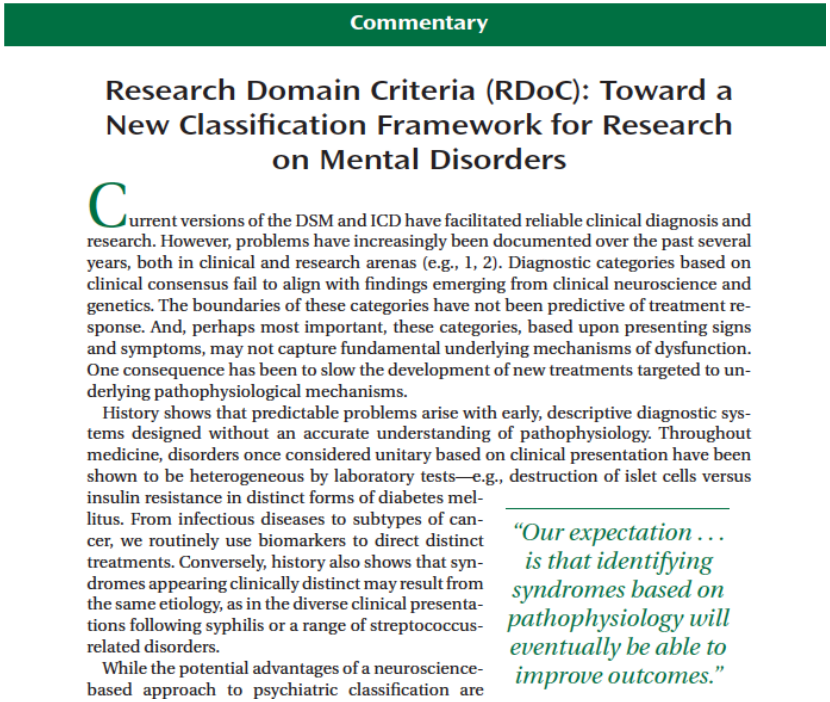
# Issues for DSM-V: Clinical Staging: A Heuristic Pathway to Valid Nosology and Safer, More Effective Treatment in Psychiatry

Clinical staging is a proven strategy whose value is clear in the treatment of malignancies and many other medical conditions in which the quality of life and survival rely on the earliest possible delivery of effective interventions, yet it has not been explicitly endorsed in psychiatry (1–4). Clinical staging differs from conventional diagnostic practice in that it defines the progression of disease in time and where a person lies along this continuum of the course of illness. It enables the clinician to select treatments relevant to earlier stages because such interventions may be more effective and less harmful than treatments delivered later in the illness course (5). Although staging links treatment selection and prediction, its role in the former is more crucial than in the latter, particularly since early successful treatment may change the prognosis and thus prevent progression to subsequent stages.

*"Defining discrete stages according to progression of disease creates a prevention-oriented framework for understanding pathogenesis and evaluation of interventions."*

A disorder that is potentially severe and may progress if untreated is likely to be most appropriate for staging. Treatment and particularly early treatment should also demonstrably increase the chances of cure or at least of reducing mortality and disability. This could include

# Research Domain Criteria (RDoC)



Commentary

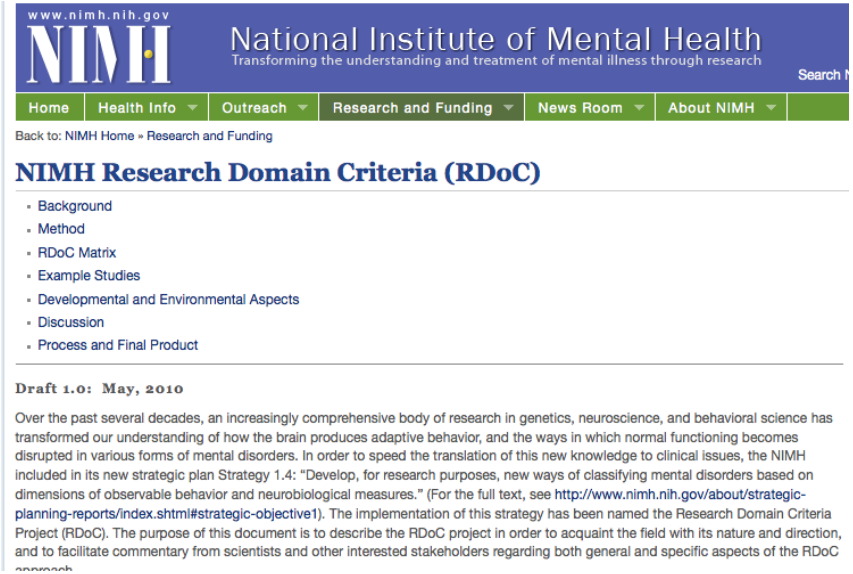
## Research Domain Criteria (RDoC): Toward a New Classification Framework for Research on Mental Disorders

Current versions of the DSM and ICD have facilitated reliable clinical diagnosis and research. However, problems have increasingly been documented over the past several years, both in clinical and research arenas (e.g., 1, 2). Diagnostic categories based on clinical consensus fail to align with findings emerging from clinical neuroscience and genetics. The boundaries of these categories have not been predictive of treatment response. And, perhaps most important, these categories, based upon presenting signs and symptoms, may not capture fundamental underlying mechanisms of dysfunction. One consequence has been to slow the development of new treatments targeted to underlying pathophysiological mechanisms.

History shows that predictable problems arise with early, descriptive diagnostic systems designed without an accurate understanding of pathophysiology. Throughout medicine, disorders once considered unitary based on clinical presentation have been shown to be heterogeneous by laboratory tests—e.g., destruction of islet cells versus insulin resistance in distinct forms of diabetes mellitus. From infectious diseases to subtypes of cancer, we routinely use biomarkers to direct distinct treatments. Conversely, history also shows that syndromes appearing clinically distinct may result from the same etiology, as in the diverse clinical presentations following syphilis or a range of streptococcus-related disorders.

*"Our expectation . . . is that identifying syndromes based on pathophysiology will eventually be able to improve outcomes."*

While the potential advantages of a neuroscience-based approach to psychiatric classification are



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### NIMH Research Domain Criteria (RDoC)

- Background
- Method
- RDoC Matrix
- Example Studies
- Developmental and Environmental Aspects
- Discussion
- Process and Final Product

Draft 1.0: May, 2010

Over the past several decades, an increasingly comprehensive body of research in genetics, neuroscience, and behavioral science has transformed our understanding of how the brain produces adaptive behavior, and the ways in which normal functioning becomes disrupted in various forms of mental disorders. In order to speed the translation of this new knowledge to clinical issues, the NIMH included in its new strategic plan Strategy 1.4: "Develop, for research purposes, new ways of classifying mental disorders based on dimensions of observable behavior and neurobiological measures." (For the full text, see http://www.nimh.nih.gov/about/strategic-planning-reports/index.shtml#strategic-objective1). The implementation of this strategy has been named the Research Domain Criteria Project (RDoC). The purpose of this document is to describe the RDoC project in order to acquaint the field with its nature and direction, and to facilitate commentary from scientists and other interested stakeholders regarding both general and specific aspects of the RDoC approach

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# CLINICAL STAGING

- Key principles:

- Treatment needs differ by phase/stage
- Treatment more benign and effective in earlier phases (depends on pattern of disorder)

# Subthreshold and Threshold Disorder……

| Stage | Definition | Referral sources | Potential interventions |
|---|---|---|---|
| **0** | Increased risk of psychotic or severe mood symptoms but currently asymptomatic | First-degree young relatives of probands | Improved mental health literacy<br>Family and drug education<br>Brief cognitive skills training |
| **1a** | Mild or non-specific symptoms, mild functional change or decline | Screening of youth populations<br>Referral by primary care physicians or school counsellors | Formal mental health literacy/eHealth<br>Problem solving and support<br>Family psychoeducation<br>Substance misuse reduction<br>Exercise |
| **1b** | Ultra-high risk: Moderate but subthreshold mood/positive/negative symptoms with moderate neurocognitive changes and functional decline (GAF < 70) | Referral by educational agencies, primary care physicians, emergency departments, welfare agencies | Formal CBT/CM<br>Family psychoeducation<br>Substance abuse reduction<br>Omega-3 fatty acids<br>Atypical antipsychotics?<br>Antidepressants, mood stabilizers? |
| **2** | First episode of full-threshold disorder with moderate to severe symptoms, neurocognitive deficits and functional decline (GAF 30 - 50) | Referral by primary care physicians, emergency departments, welfare agencies, specialist care agencies, drug and alcohol services | Formal CBT/CM<br>Family psychoeducation<br>Substance misuse reduction<br>Atypical antipsychotics<br>Antidepressants or mood stabilizers<br>Vocational rehabilitation |

# Mapping Biomarkers by Clinical Stage

| Stage | Structural MRI | | | Neurocognition | | | Electrophysiology | | | Neuroimmunology | | | Oxidative stress | | | HPA axis dysregulation | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sz | BD | MD | Sz | BD | MD | Sz | BD | MD | Sz | BD | MD | Sz | BD | MD | Sz | BD | MD |
| 0 | | | | | | | | | | | | | | | | | | |
| 1a | | | | | | | | | | | | | | | | | | |
| 1b | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |

PERSPECTIVE

doi:10.1038/nature09552

# Rethinking schizophrenia

Thomas R. Insel[1]

**Table 1 | Stages of schizophrenia**

| | Stage I | Stage II | Stage III | Stage IV |
|---|---|---|---|---|
| Features | Genetic vulnerability<br>Environmental exposure | Cognitive, behavioural and social deficits<br>Help-seeking | Abnormal thought and behaviour<br>Relapsing–remitting course | Loss of function<br>Medical complications<br>Incarceration |
| Diagnosis | Genetic sequence<br>Family history | SIPS<br>Cognitive assessment<br>Imaging | Clinical interview<br>Loss of insight | Clinical interview<br>Loss of function |
| Disability | None/mild cognitive deficit | Change in school and social function | Acute loss of function<br>Acute family distress | Chronic disability<br>Unemployment<br>Homelessness |
| Intervention | Unknown | Cognitive training?<br>Polyunsaturated fatty acids?<br>Family support? | Medication<br>Psychosocial interventions | Medication<br>Psychosocial interventions<br>Rehabilitation services |

Stage I, pre-symptomatic risk; stage II, pre-psychotic prodrome; stage III, acute psychosis; stage IV, chronic illness.



Insel T Nature
November 2010

Special Article

Psychotherapy and Psychosomatics

Psychother Psychosom 2008;77:263–270
DOI: 10.1159/000140085

Publishe

# Early Identification and Intervention in Depressive Disorders: Towards a Clinical Staging Model

S.E. Hetrick[a] A.G. Parker[a] I.B. Hickie[b] R. Purcell[a] A.R. Yung[a] P.D. McGorry[a]

[a]ORYGEN Research Centre, Department of Psychiatry, University of Melbourne, Melbourne, and
[b]Brain and Mind Institute, University of Sydney, Sydney, Australia

**Original Article**

# Does stage of illness impact treatment response in bipolar disorder? Empirical treatment data and their implication for the staging model and early intervention

Berk M, Brnabic A, Dodd S, Kelin K, Tohen M, Malhi GS, Berk L, Conus P, McGorry PD. Does stage of illness impact treatment response in bipolar disorder? Empirical treatment data and their implication for the staging model and early intervention.
Bipolar Disord 2011. 

Michael Berk[a–e], Alan Brnabic[f], Seetal Dodd[a,c], Katarina Kelin[f], Mauricio Tohen[g], Gin S Malhi[h,i], Lesley Berk[a–c], Philippe Conus[b,e] and Patrick D McGorry[b,e]

# Early intervention for adolescents with borderline personality disorder using cognitive analytic therapy: randomised controlled trial

Andrew M. Chanen, Henry J. Jackson, Louise K. McCutcheon, Martina Jovev, Paul Dudgeon, Hok Pan Yuen, Dominic Germano, Helen Nistico, Emma McDougall, Caroline Weinstein, Verity Clarkson and Patrick D. McGorry

**Background**
No accepted intervention exists for borderline personality disorder presenting in adolescence.

**Aims**
To compare the effectiveness of up to 24 sessions of cognitive analytic therapy (CAT) or manualised good clinical care (GCC) in addition to a comprehensive service model of care.

**Method**
In a randomised controlled trial, CAT and GCC were compared in out-patients aged 15–18 years who fulfilled two to nine of the DSM–IV criteria for borderline personality disorder. We predicted that, compared with the GCC group, the CAT group would show greater reductions in psychopathology and parasuicidal behaviour and greater improvement in global functioning over 24 months.

**Results**
Eighty-six patients were randomised and 78 (CAT *n*=41; GCC *n*=37) provided follow-up data. There was no significant difference between the outcomes of the treatment groups at 24 months on the pre-chosen measures but there was some evidence that patients allocated to CAT improved more rapidly. No adverse effect was shown with either treatment.

**Conclusions**
Both CAT and GCC are effective in reducing externalising psychopathology in teenagers with sub-syndromal or full-syndrome bipolar personality disorder. Larger studies are required to determine the specific value of CAT in this population.

**Declaration of interest**
None. Funding detailed in Acknowledgements.

# Early identification and treatment of eating disorders: prodrome to syndrome

Daniel le Grange[1] and Katharine L. Loeb[2]

## Abstract

The onset of eating disorder psychopathology is most common in the adolescent age group. Acute psychopathology or subsyndromal eating disorders are perhaps less intractable in these young patients. Subsyndromal eating disorders in children and adolescents are not only clinically significant in their present state, but may represent legitimate candidates for preventive efforts in light of: (i) a risk of progression from subthreshold anorexia nervosa (SAN) to AN or subthreshold bulimia nervosa (SBN) to BN; (ii) the detrimental effects on outcome of delaying treatment; and (iii) the refractory, severe nature of eating disorders once the diagnostic threshold is crossed. Moreover, children and adolescents with SAN and SBN may in fact be exhibiting early 'caseness' of these disorders. Given that AN is notoriously difficult to treat, and there are limited efficacy data for adolescent BN, attempts to disrupt these disorders in what is arguably their early phases is an important goal in preventing more chronic and treatment-resistant forms of these disorders. Future research should address whether the best interventions for SAN and SBN should be derived from the prevention or intervention fields.

[1]Department of Psychiatry, The University of Chicago, Chicago, Illinois and
[2]Department of Psychiatry, Mount Sinai School of Medicine, New York, New York, USA

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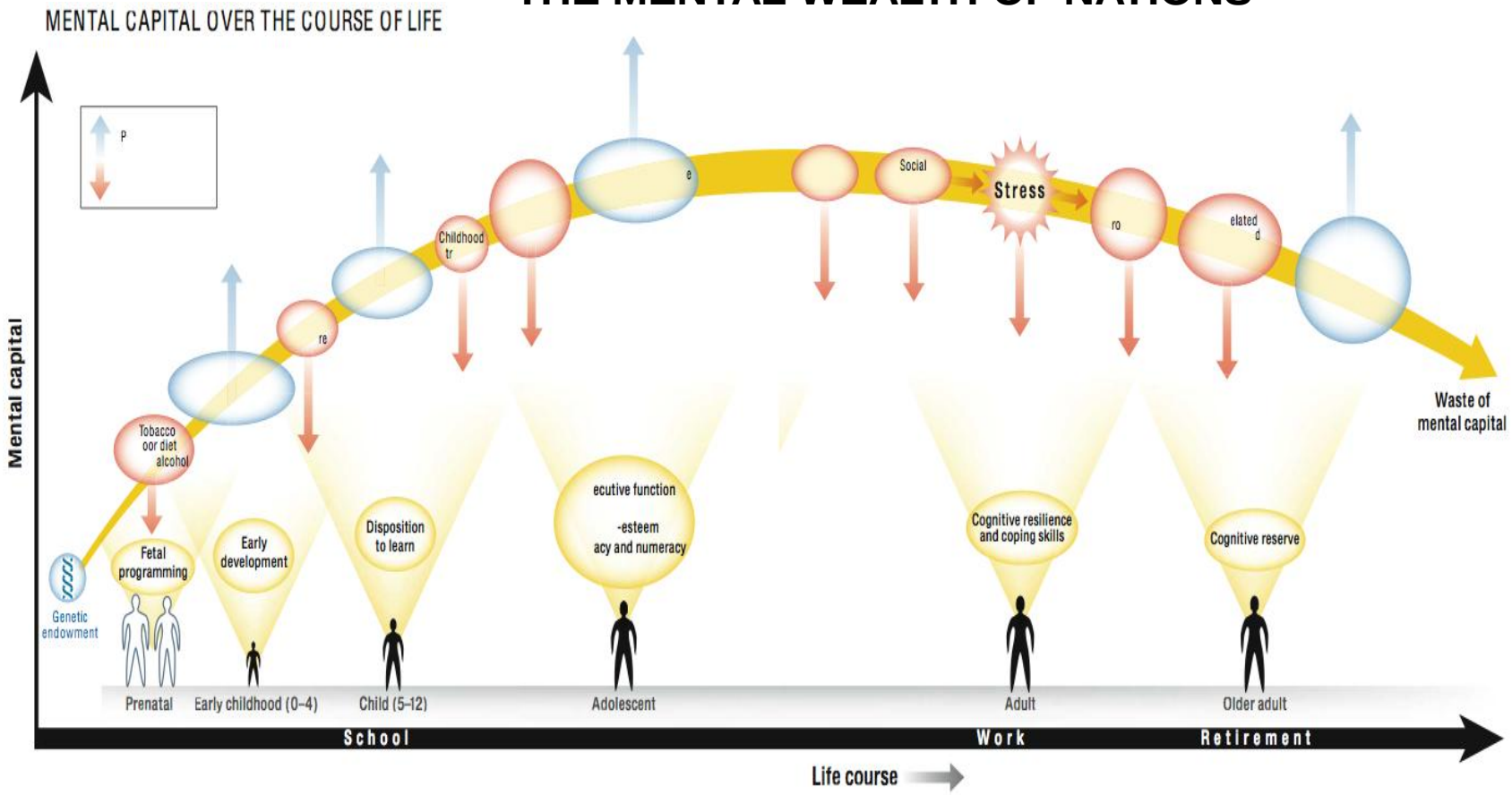
Orygen YOUTH Health
Research Centre

# YOUTH MENTAL HEALTH

## ENABLING STRATEGIES AND CULTURES OF CARE FOR NEW KNOWLEDGE, NOVEL THERAPIES AND BETTER OUTCOMES

THE UNIVERSITY OF MELBOURNE

# DEVELOPMENTAL PERSPECTIVE: THE MENTAL WEALTH OF NATIONS




Beddington et al 2008 Nature

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# The Global Economic Burden of Non-communicable Diseases

ACCESS ECONOMICS

June 2009

# The economic impact of youth mental illness and the cost effectiveness of early intervention

Report by Access Economics Pty Limited for

## Orygen Youth Health Research Centre

# Counting the Cost: **The Impact of Young Men's Mental Health on the Australian Economy**

Ernst & Young
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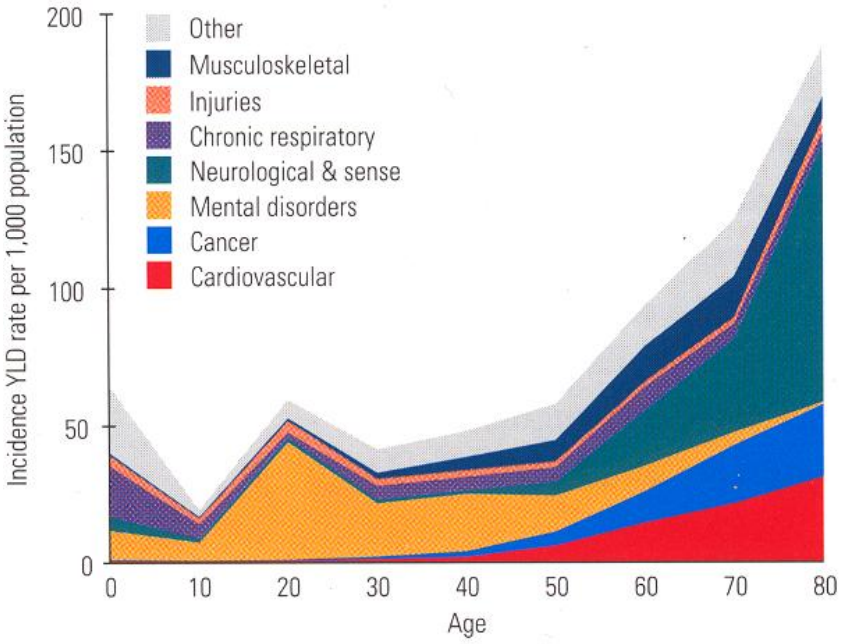
# DUAL PARADIGMS

## Epidemiological: Incidence Patterns

*Figure 6 Incident YLD Rates per 1,000 Population by Age and Broad Disease Grouping, Victoria 1996*




## Developmental: Transitions to Adulthood


Orygen Youth Health Research Centre

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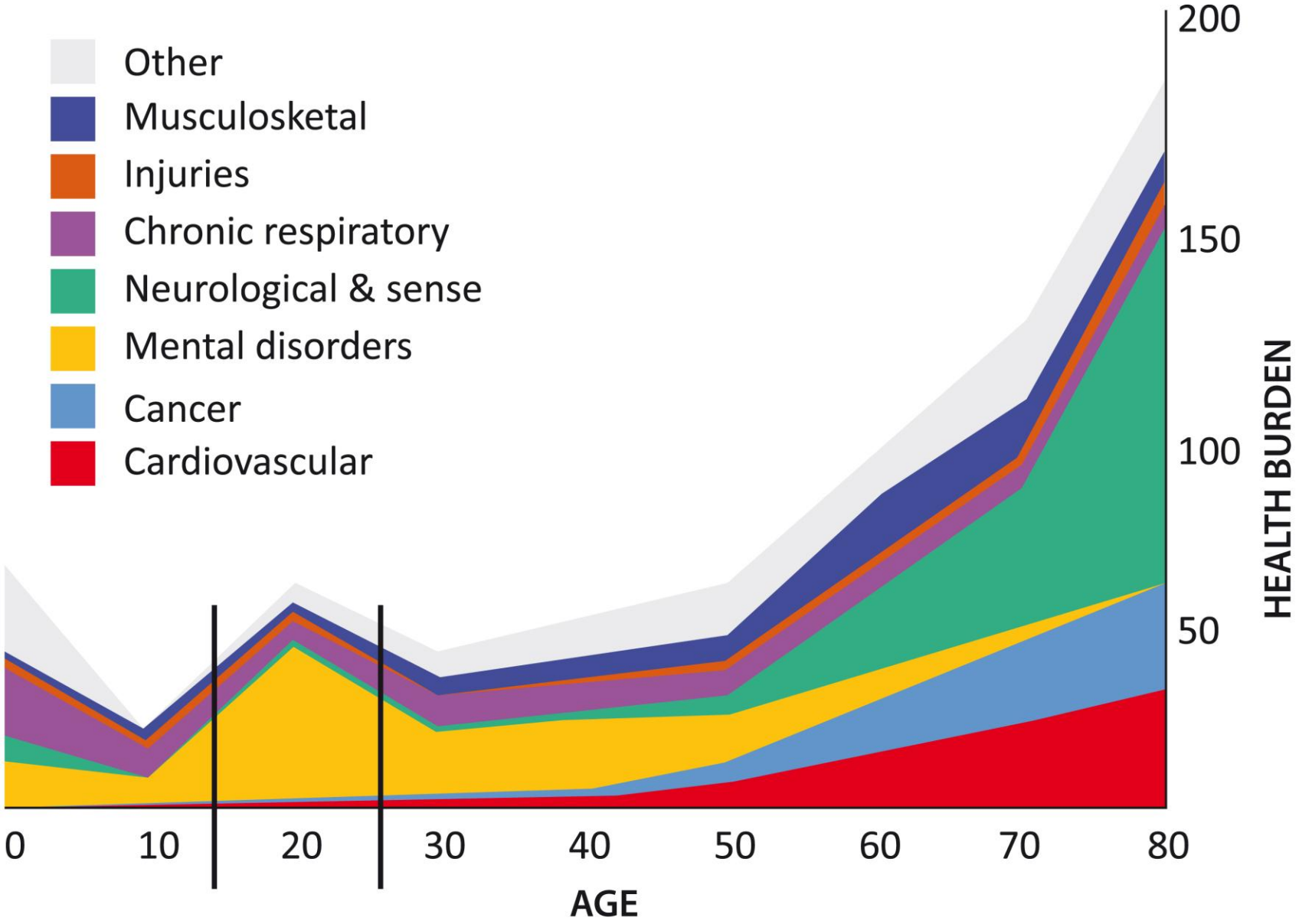
# Disease Burden across Age



# Age of onset and timing of treatment for mental and substance use disorders: implications for preventive intervention strategies and models of care

Patrick D. McGorry, Rosemary Purcell, Sherilyn Goldstone and G. Paul Amminger

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Correspondence to Professor Patrick D. McGorry, Locked Bag 10 (35 Poplar Road), Parkville, VIC 3052, Australia
Tel: +61 03 9342 2850; fax: +61 03 9342 2948; e-mail: pmcgorry@unimelb.edu.au

**Current Opinion in Psychiatry** 2011, 24:301–306

**Purpose of review**

To provide an update of the recent studies on the age of onset of the major mental illnesses, with a special focus on the prospects for prevention and early intervention.

**Recent findings**

The studies reviewed here confirm previous reports on the age of onset of the major mental disorders. While the behaviour disorders, and certain anxiety disorders, emerge during childhood, most of the high prevalence disorders (anxiety, mood and substance use) emerge during adolescence and early adulthood, as do the psychotic disorders. Early age of onset has been shown to be associated with a longer duration of untreated illness and poorer clinical and functional outcomes.

**Summary**

Although the onset of most mental disorders usually occurs during the first three decades of life, effective treatment is typically not initiated until a number of years later. Although there is increasing evidence to suggest that intervention during the early stages of a disorder may help reduce the severity and/or the persistence of the initial or primary disorder and prevent secondary disorders, additional research is needed into appropriate treatment for early stage cases as well as the long-term effects of early intervention, and to appropriate service design for those in the early stages of a mental illness. This will mean not only the strengthening and re-engineering of existing systems but also, crucially, the construction of new streams of care for young people in transition to adulthood.

**Keywords**

age of onset, duration of untreated psychosis, early intervention, mental disorders, prevention, treatment delay

# Burden of psychiatric disorder in young adulthood and life outcomes at age 30

Sheree J. Gibb, David M. Fergusson and L. John Horwood

**Background**
Psychiatric disorders are common during young adulthood and comorbidity is frequent. Individual psychiatric disorders have been shown to be associated with negative economic and educational outcomes, but few studies have addressed the relationship between the total extent of psychiatric disorder and life outcomes.

**Aims**
To examine whether the extent of common psychiatric disorder between ages 18 and 25 is associated with negative economic and educational outcomes at age 30, before and after controlling for confounding factors.

**Method**
Participants were 987 individuals from the Christchurch Health and Development Study, a longitudinal study of a birth cohort of individuals born in Christchurch, New Zealand, in 1977 and followed to age 30. Linear and logistic regression models were used to examine the associations between psychiatric disorder from age 18 to 25 and workforce participation, income and living standards, and educational achievement at age 30, before and after adjustment for confounding factors.

**Results**
There were significant associations between the extent of psychiatric disorder reported between ages 18 and 25 and all of the outcome measures (all $P<0.05$). After adjustment for confounding factors, the associations between psychiatric disorder and workforce participation, income and living standards remained significant (all $P<0.05$), but the associations between psychiatric disorder and educational achievement were not significant (all $P>0.10$).

**Conclusions**
After due allowance had been made for a range of confounding factors, psychiatric disorder between ages 18 and 25 was associated with reduced workforce participation, lower income and lower economic living standards at age 30.

**Declaration of interest**
None.

**From: Prevalence, Persistence, and Sociodemographic Correlates of DSM-IV Disorders in the National Comorbidity Survey Replication Adolescent Supplement**

**Kessler et al Arch Gen Psychiatry. 2012;69(4):372-380. doi:10.1001/archgenpsychiatry.2011.160**

**Table 2. Estimates of 12-Month and 30-Day Prevalence Estimates and 12-Month to Lifetime and 30-Day to 12-Month Prevalence Ratios of *DSM-IV* and Composite International Diagnostic Interview Disorders in the Total Sample[a]**

| | % (SE) | | | |
|---|---|---|---|---|
| | Prevalence | | Prevalence Ratio | |
| Disorder | 12-mo | 30-d | 12-mo/Lifetime | 30-d/12-mo |
| Mood disorder | | | | |
| Major depressive disorder or dysthymia | 8.2 (0.8) | 2.6 (0.3) | 70.2 (3.1) | 31.8 (2.7) |
| Bipolar I or II disorder | 2.1 (0.2) | 0.7 (0.1) | 72.3 (4.0) | 32.0 (3.7) |
| Any mood disorder | 10.0 (0.8) | 3.1 (0.4) | 69.8 (2.4) | 31.5 (2.5) |
| Anxiety disorder | | | | |
| Agoraphobia[b] | 1.8 (0.2) | 0.8 (0.1) | 74.6 (4.6) | 43.7 (6.7) |
| Generalized anxiety disorder | 1.1 (0.2) | 0.4 (0.1) | 51.2 (5.4) | 35.3 (7.8) |
| Social phobia | 8.2 (0.4) | 4.6 (0.3) | 90.9 (1.7) | 55.7 (3.3) |
| Specific phobia | 15.8 (0.8) | 9.5 (0.6) | 81.9 (1.4) | 60.2 (1.7) |
| Panic disorder[c] | 1.9 (0.2) | 0.8 (0.1) | 81.7 (3.1) | 40.0 (5.2) |
| Posttraumatic stress disorder | 3.9 (0.4) | 1.6 (0.2) | 78.1 (2.7) | 41.9 (3.1) |
| Separation anxiety disorder | 1.6 (0.2) | 0.6 (0.1) | 20.9 (2.2) | 36.0 (5.5) |
| Any anxiety disorder | 24.9 (0.9) | 14.9 (0.6) | 77.9 (1.3) | 60.1 (1.4) |
| Behavior disorder | | | | |
| Attention-deficit/hyperactivity disorder | 6.5 (0.5) | 4.5 (0.3) | 74.6 (2.5) | 68.6 (3.6) |
| Oppositional-defiant disorder | 8.3 (0.7) | 2.9 (0.3) | 66.0 (3.2) | 34.2 (3.6) |
| Conduct disorder | 5.4 (0.8) | 1.5 (0.3) | 78.4 (3.7) | 27.5 (4.5) |
| Eating disorder | 2.8 (0.2) | 1.1 (0.1) | 54.0 (3.1) | 38.8 (4.1) |
| Any behavior disorder | 16.3 (1.1) | 7.6 (0.7) | 72.1 (2.4) | 46.8 (2.6) |
| Substance disorder | | | | |
| Alcohol abuse with or without dependence | 4.7 (0.3) | 1.3 (0.1) | 73.6 (2.2) | 27.3 (2.8) |
| Drug abuse with or without dependence | 5.7 (0.5) | 1.6 (0.3) | 64.1 (3.2) | 27.8 (3.3) |
| Any substance disorder | [illegible] | 2.6 (0.3) | 73.3 (2.3) | 31.2 (3.0) |
| Total disorders, No. | | | | |
| Any | 40.3 (1.2) | 23.4 (1.0) | 79.5 (1.2) | 57.9 (1.7) |
| Exactly 1 | 21.9 (0.8) | 16.4 (0.8) | 66.1 (2.1)[d] | 43.2 (2.0)[e] |
| Exactly 2 | 8.7 (0.6) | 4.8 (0.5) | 86.2 (1.9)[d] | 67.9 (3.0)[e] |
| ≥3 | 9.8 (0.7) | 2.2 (0.3) | 95.4 (1.2)[d] | 82.5 (2.7)[e] |

[a] All disorders other than oppositional-defiant disorder and substance disorders are classified using *DSM-IV* diagnostic hierarchy rules. Oppositional-defiant disorder is diagnosed with or without conduct disorder. Alcohol and drug abuse are diagnosed with or without dependence. While diagnoses of most disorders are based exclusively on adolescent reports, parent reports are used to [illegible] diagnoses of major depressive disorder or dysthymia, oppositional-defiant disorder, conduct disorder, and attention-deficit/hyperactivity disorder. The first 3 of these 4 disorders were assessed in the sample that completed the full parent self-administered questionnaire (n = 6483), whereas attention-deficit/hyperactivity disorder was assessed in both the full self-administered questionnaire sample and in the subsample of parents who completed the short-form self-administered questionnaire (n = 8470). As a result, prevalence estimates of any mood disorder, any behavior disorder, any disorder, and number of disorders are based on 6483 cases.

[b] Agoraphobia is diagnosed without a history of panic disorder.

[c] Panic disorder is assessed with or without agoraphobia.

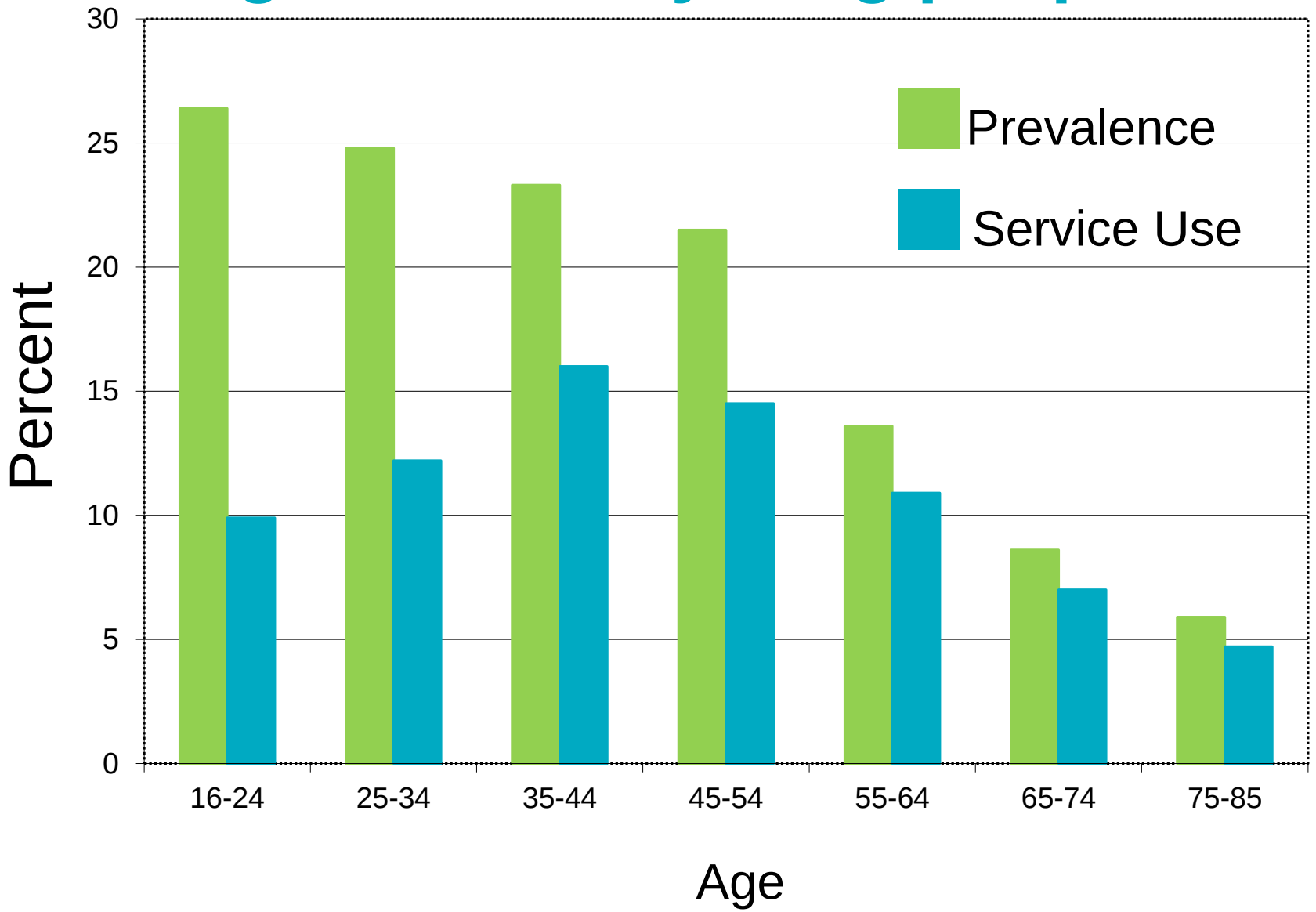
[d] The percentage of respondents with the number of lifetime disorders indicated in the row who have 1 or more 12-month disorders. For example, 86.2% of the respondents with a lifetime history of exactly 2 disorders had 1 or more disorders in the 12 months before interview.

[e] The percentage of respondents with the number of 12-month disorders indicated in the row who have 1 or more 30-day disorders. For example, 67.9% of the respondents with a 12-month history of exactly 2 disorders had 1 or more disorders in the 30 days before interview.

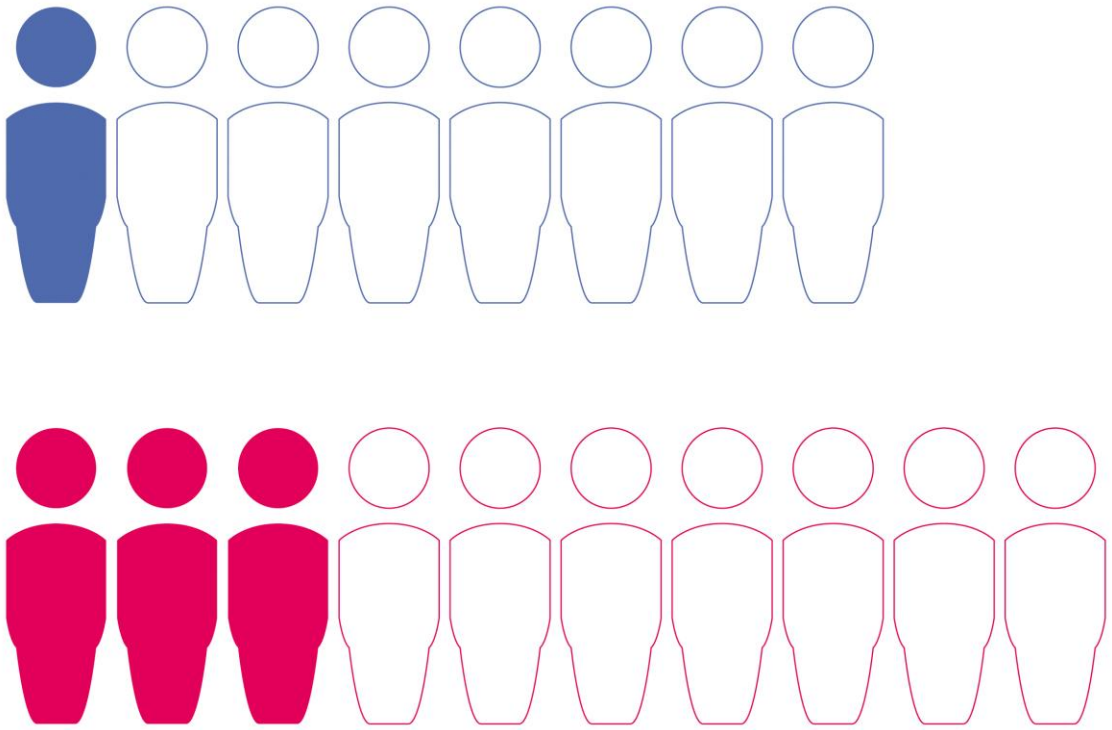
:


WELCOME
TO
TREATMENT
(JUST
KIDDING)
Stuart Leeds

# MH Prevalence /Service Use Gap greatest for young people

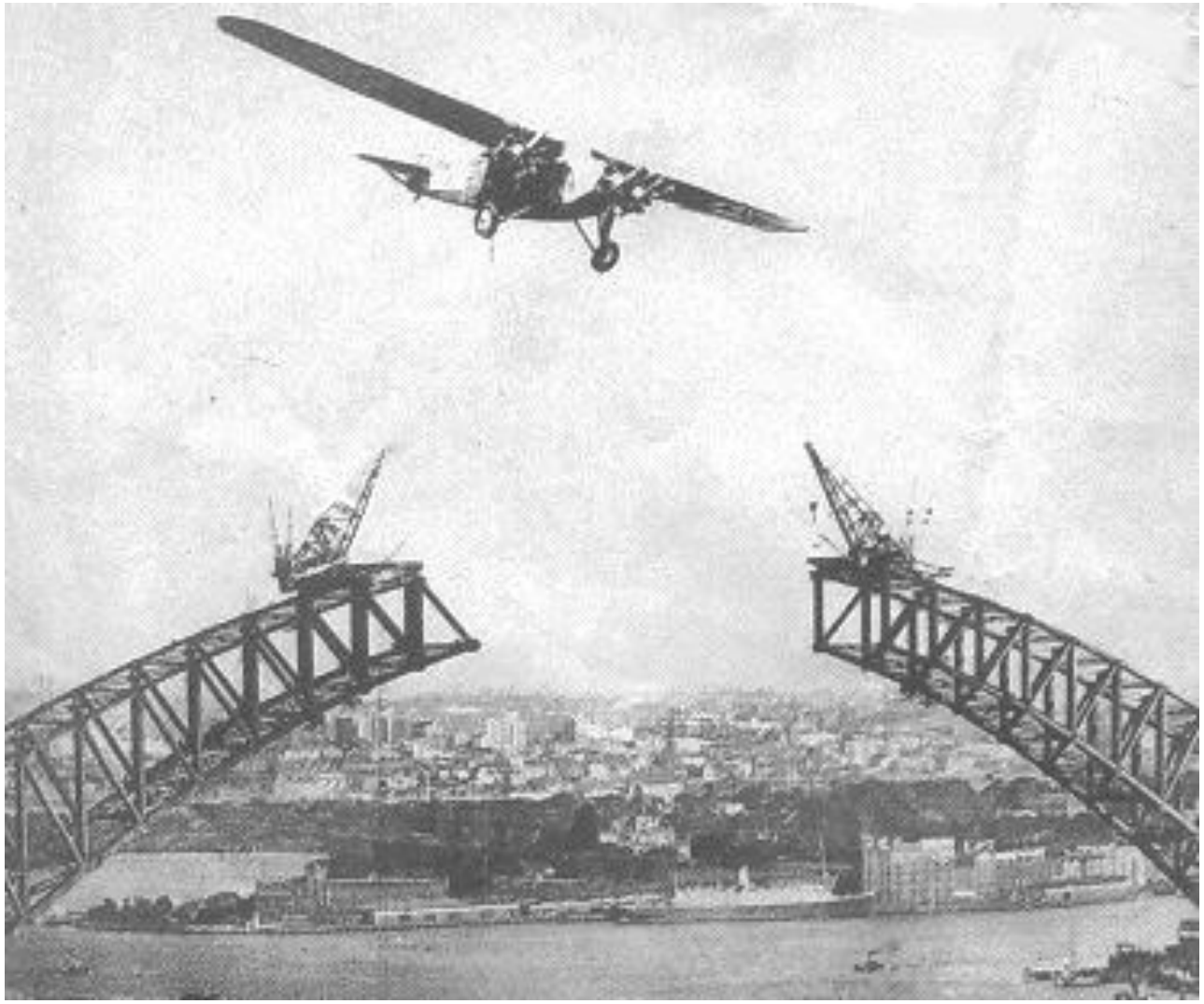


Only 13% of young men and 31% of young women access the mental health care they need




Trying to make YOUNG PEOPLE fit the existing services with haphazard results
s the “transitions” idea is another bandaid that sells th
short?

CAMHS



ADULT MHS

# A NEW ARCHITECTURE AND CULTURE OF CARE: YOUTH MENTAL HEALTH


Emerging Adulthood
Jeffrey Jensen Arnett

# National Health and Hospitals Reform Commission 2009

**Reform direction 10.1**

We propose that a youth friendly community-based service, which provides information and screening for mental disorders and sexual health, be rolled out nationally for all young Australians. The chosen model should draw on evaluations of current initiatives in this area – both service- and internet/telephonic-based models. Those young people requiring more intensive support can be referred to the appropriate primary health care service or to a mental or other specialist health service.

**Reform direction 10.2**

We propose that the Early Psychosis Prevention and Intervention Centre model be implemented nationally so that early intervention in psychosis becomes the norm.

# Mental health service reorientation

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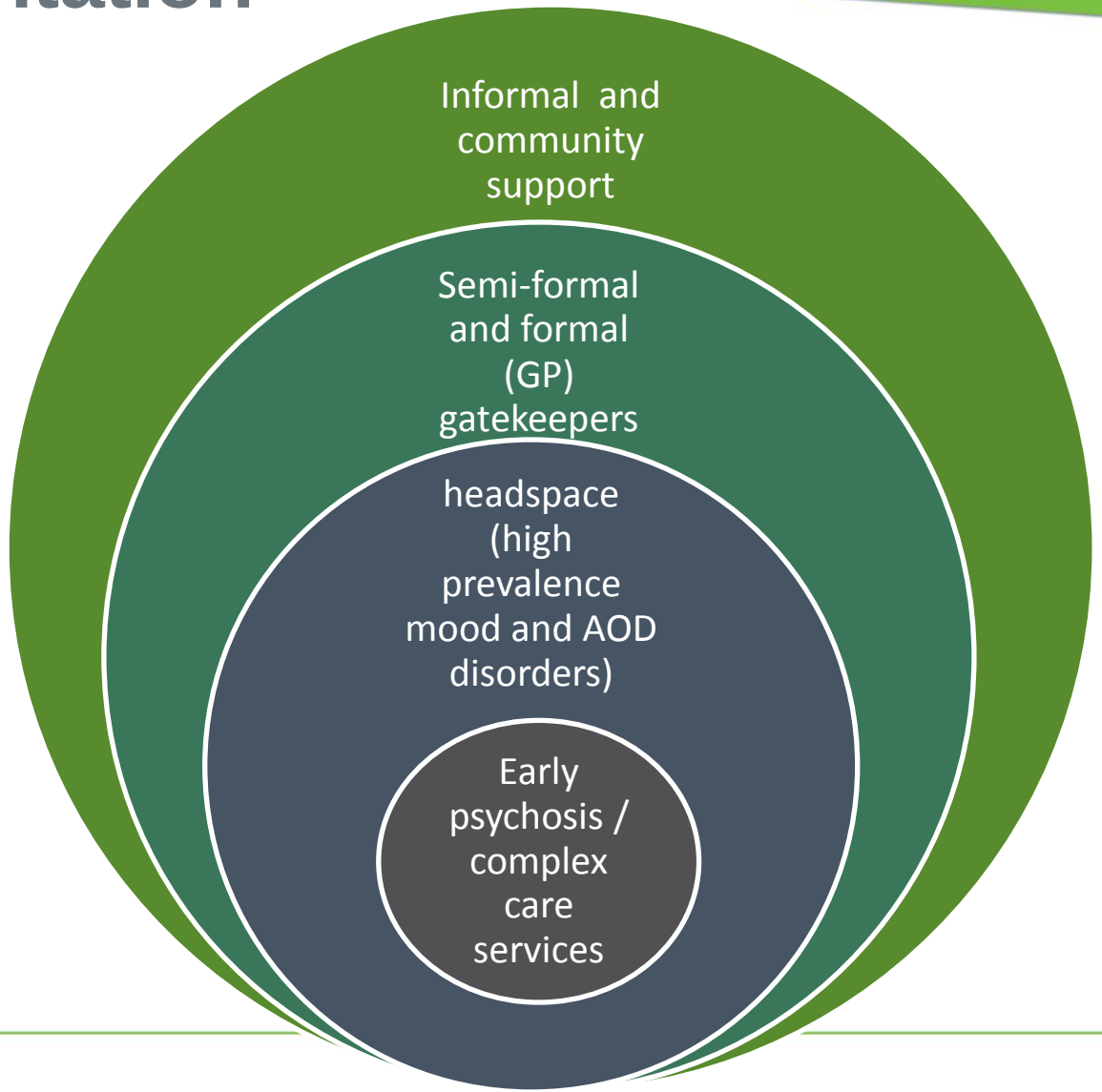


# One stop service for mental health, AOD, physical health, vocational assistance that is youth friendly and free or low cost

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# headspace
# Western Melbourne

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# Specialist

Expertise

PSYCHOSIS

MOOD

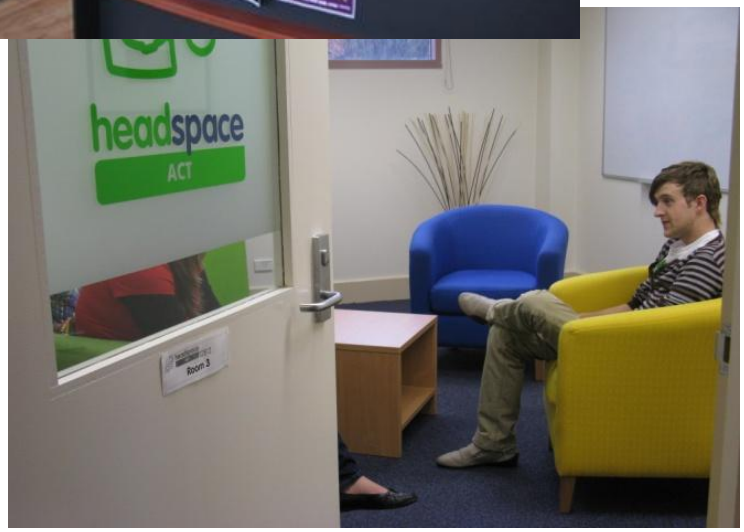
PERSONALITY DISORDERS


EATING DISORDERS

SUBSTANCE USE DISORDERS

# REACHING OUT

## Not just f2f service delivery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National Youth Mental Health Foundation
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login
register
Search
is it just me?
finding help for you or a friend...
learn more
helping family?
parents and carers can do a lot to help...
learn more
what works?
evidence, information and resources for professionals working with young people
learn more
about headspace
headspace is the National Youth Mental Health Foundation, helping young people aged 12 to 25
learn more
day against bullying
Awesome new video, new resources, online forum for parents, new ambassadors & a free song!
learn more
headspace school support
Our new initiative to assist schools immediately following a suicide
learn more
find a headspace centre
Enter your postcode
talk to someone online at eheadspace
access now
is it just me?
parents and carers
what works?
headspace centres
about headspace
privacy
duty of care
sitemap
terms & conditions
login
register
newsletter signup
feedback
show your support for headspace
donate now
do you need to speak to someone urgently?
kids help line
1800 55 1800
visit website
Lifeline Australia
13 11 14
visit website

# Online mental health support

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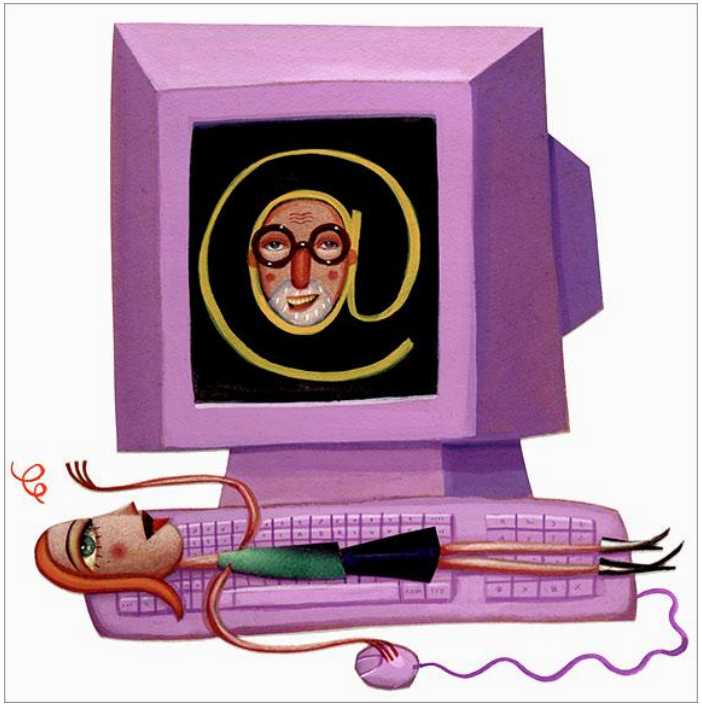
- Expand access
- Provide easier and more convenient access
- Reduce stigma associated with mental health issues and settings
- Provide a pressure free environment within which to open up and disclose
- Support both client and therapist getting to the point more quickly



# Co-operative Research Centre for Young People, Technology and Wellbeing

Enabling all young Australians to grow up safe, healthy, happy and resilient

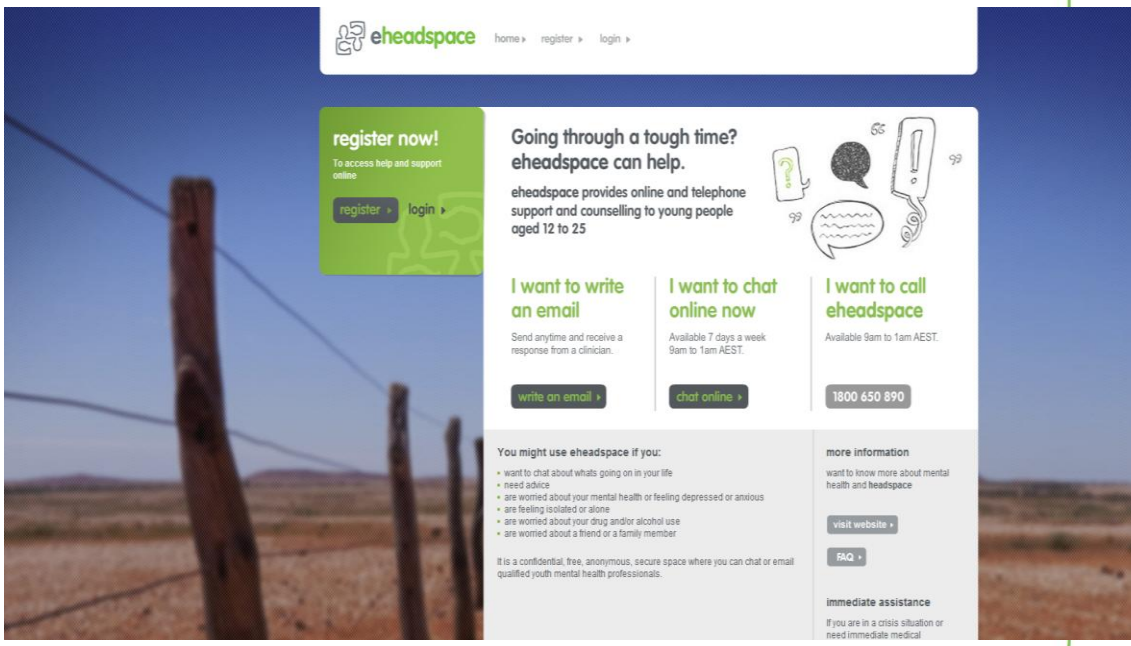
9 November 2010
Canberra

For Young People
Co-operative Research Centre
Technology and Wellbeing

# eheadspace

**eheadspace is an Australia wide online and telephone service:**

- Operates 9am-1am AEST
- For young people 12-25 and their families
- Webchat, email or telephone
- Confidential
- Free
- Qualified youth mental health clinicians
- Integrates in-person, online and telephone mental health services for young people



## register now!

To access help and support online

register ▸ login ▸

# Going through a tough time? eheadspace can help.

**eheadspace provides online and telephone support and counselling to young people aged 12 to 25**

## I want to write an email

Send anytime and receive a response from a clinician.

write an email ▸

## I want to chat online now

Available 7 days a week 1pm to 1am AEST.

chat online ▸

## I want to call eheadspace

Available 10pm to 1pm AEST.

1800 650 890

### You might use eheadspace if you:

- want to chat about whats going on in your life
- need advice
- are worried about your mental health or feeling depressed or anxious
- are feeling isolated or alone
- are worried about your drug and/or alcohol use
- are worried about a friend or a family member

It is a confidential, free, anonymous, secure space where you can chat or email qualified youth mental health professionals.

VeriSign Trusted VERIFY

### more information

want to know more about mental health and headspace

visit website ▸

### immediate assistance

If you are in a crisis situation or need immediate medical assistance contact Mental Health Services or Emergency Services on 000.

Do you need to speak to someone

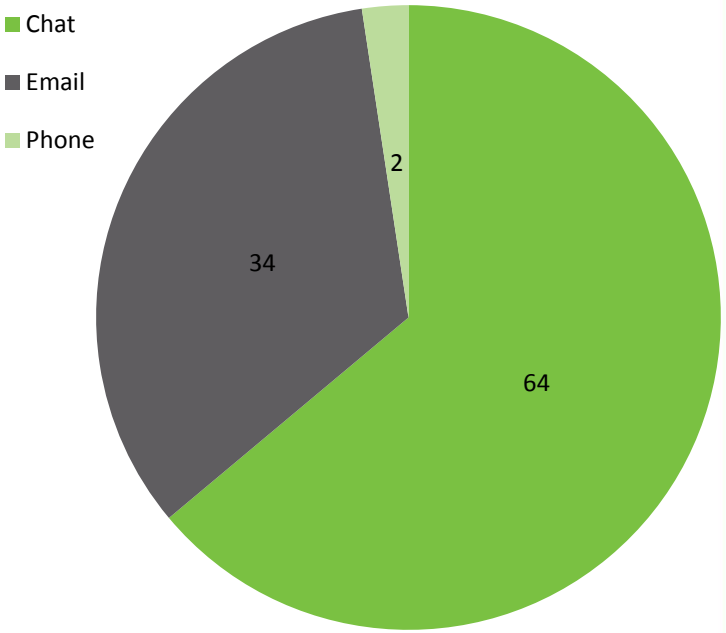
# Type of service use

## esupport (n=3,771)

- provided on an ‘as needs’ basis and includes: psychoeducation, motivational interviewing, self-help strategies, supportive counselling, and adjunctive/collaborative care with face to face services.

## etherapy (n=22)

- individually negotiated, goal directed counselling using evidence based interventions. To be eligible young person will have completed a thorough assessment and screening process.



# headspace School Support

## Commenced January 2012

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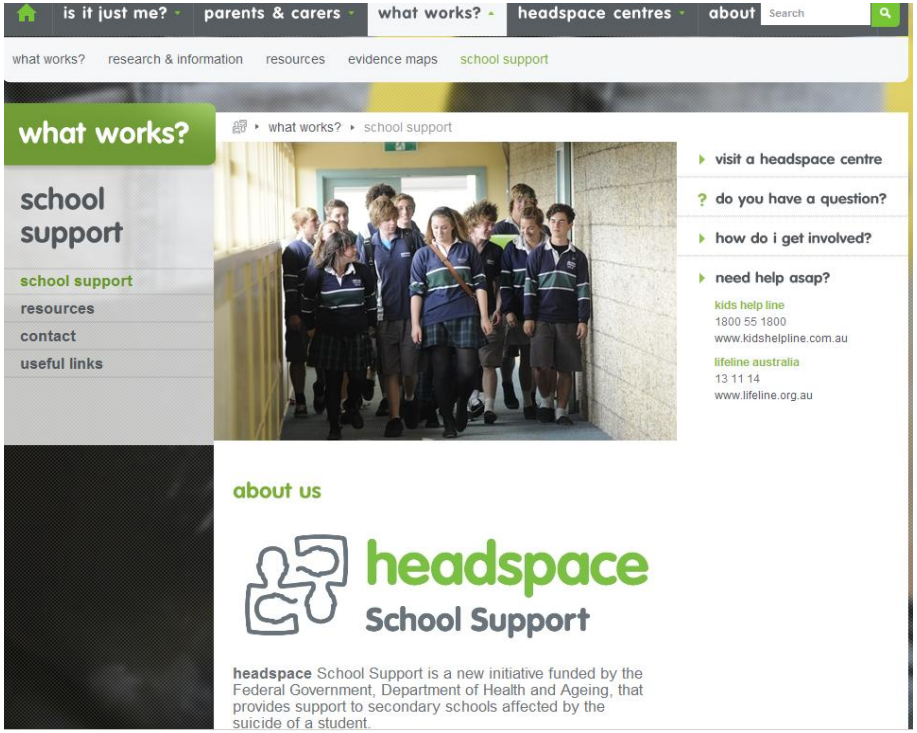
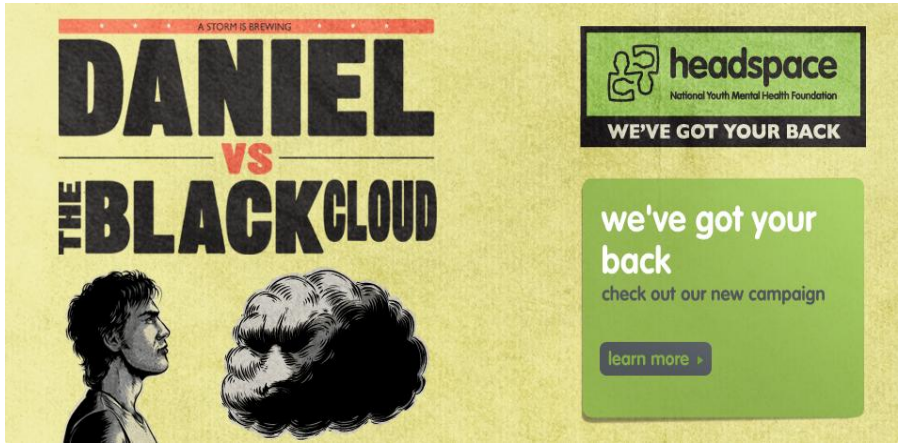
- Minimise the likelihood of further suicides by identifying students who may be at risk of suicidal behaviour, depression, or other psychiatric disorders

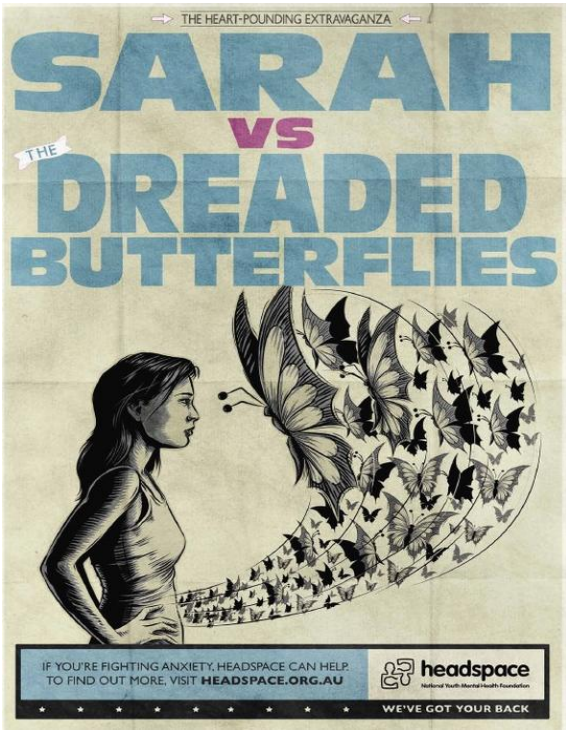
1. **Evidence review**
2. **Online resources**
3. **Recruiting teams**



# Branding and headspace campaigns







# More information

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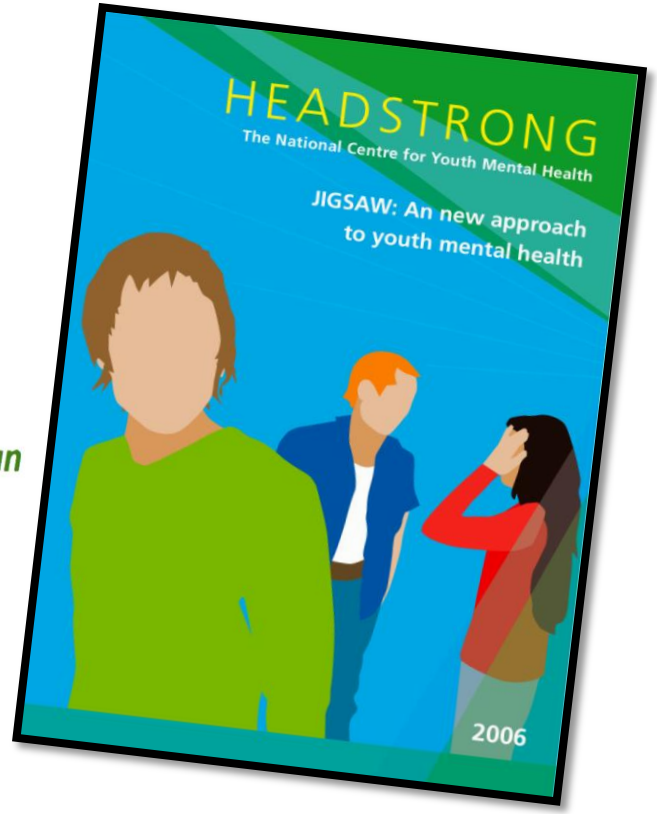
**www.youtube.com/headspaceAustralia**

JIGSAW
YOUNG PEOPLE'S HEALTH IN MIND


## Jigsaw Demonstration Sites

# HEADSTRONG and JIGSAW GALWAY



JIGSAW
JIGSA
galway YOUNG PEOPLE'S

# New Horizons

# HEADS Up!

## first International Youth Mental Health IYMH 2010 CONFERENCE

29–30 July 2010
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Melbourne, Australia

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EARLYBIRD REGISTRATION
closes Friday 18 June 2010

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## Keynote Speakers

Professor Max Birchwood, Clinical Director, YouthSpace
United Kingdom

Professor Jane Costello, Dukes Institute for Brain Sciences
North Carolina, USA

Dr Christine Bennett, Chief Medical Officer, Bupa, Australia,
Chair National Health and Hospitals Reform Commission

Mr Richard Eckersley, Founding Director, Australia 21

Professor Bob Illback, Director of Planning & Evaluation

## Who Should Attend?

Anyone working at the intersection of youth health and mental health.

INTERNATIONAL ASSOCIATION FOR YOUTH MENTAL HEALTH

# 2nd International Conference of Youth Mental Health

## 30th Sept to 2nd Oct 2013, Brighton Dome, UK

**ABSTRACTS**

**Call for Abstracts/Projects**

now open on www.iaymh2013.com

**REGISTRATION**

**Early Registration Rate Available**

until 17th May, now open on www.iaymh2013.com

YOUTH MENTAL HEALTH

Research Centre | MELBOURNE

## Imagine a world where...

- Every young person has a meaningful life and can fulfil their hopes and dreams
- All young people are respected, valued and supported by their families, friends and communities
- Young people feel empowered to exercise their right to participate in decisions that affect them
- Young people with mental ill-health get the support and care they need when and where they need it
- No young person with mental ill-health has to endure stigma, prejudice and discrimination
- The role of family and friends in supporting young people is valued and encouraged

## Background to the Declaration

The International Declaration on Youth Mental Health evolved from a Youth Mental Health Summit that took place in Killarney, Ireland on 19th May 2010. The Summit provided a forum for young people, family members, clinicians, researchers and policy makers to share practice innovation and research in the field of youth mental health and to discuss and debate the content of this Declaration. Over 80 people from Ireland, the UK, Australia, Canada, the USA, the Netherlands and New Zealand took part in the process and their feedback and input provided the basis of the Declaration. The foreword of the Declaration was written by a young person and a number of young people have contributed their views on the Declaration over the writing period. The writing group was primarily made up of members of the ACAMH Special Interest Group in Youth Mental Health, Ireland.

The writing group for the first editon of the Declaration included:

Sarah Buckley (Ireland)
Mary Cannon (Ireland)
Derek Chambers (Ireland)
Helen Coughlan (Ireland)
Marie Duffy (Ireland)
Blanaid Gavin (Ireland)
Helen Keeley (Ireland)
Patrick McGorry (Australia)
Paddy Power (Ireland)
David Shiers (UK)

### Further Information:

Ms. Ingrid King, Executive Director, The Association for Child & Adolescent Mental Health (ACAMH):
e-mail: ingrid.king@acamh.org.uk

Copies of the Declaration are available to download from the Inspire Ireland Foundation website:
web: www.inspireireland.ie

# The International Declaration on Youth Mental Health

## Summary

The **International Declaration on Youth Mental Health** (2011) sets out a shared vision, principles and action plan for mental health service provision for young people aged 12-25 years

# RANZCP SPECIAL INTEREST GROUP FOR

# YOUTH MENTAL HEALTH

# The Future

- Youth Mental Health: An International Field
- Early Intervention: A Fundamental Feature of Mental Health  Care

"The future ain't what it used to be"

Yogi Berra

# Patrick McGorry MD PhD

***Total Career Disclosures*** to 2012

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- The Stanley Foundation *(Current Research Grants)*
- Astra Zeneca *(IIT Research Grants Current and Past Honoraria)*
- Janssen Cilag *(IIT Research Grants Past and Current and Past Honoraria)*
- Eli Lilly *(Past IIT Research Grants and Honoraria)*
- Pfizer *(Past Honoraria)*
- *BMS (Past Honoraria)*
- *Roche (Past Honoraria)*
- Lundbeck Foundation *(Past Honoraria)*

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