

Preventing Psychotic Disorders by Early Detection and Intervention

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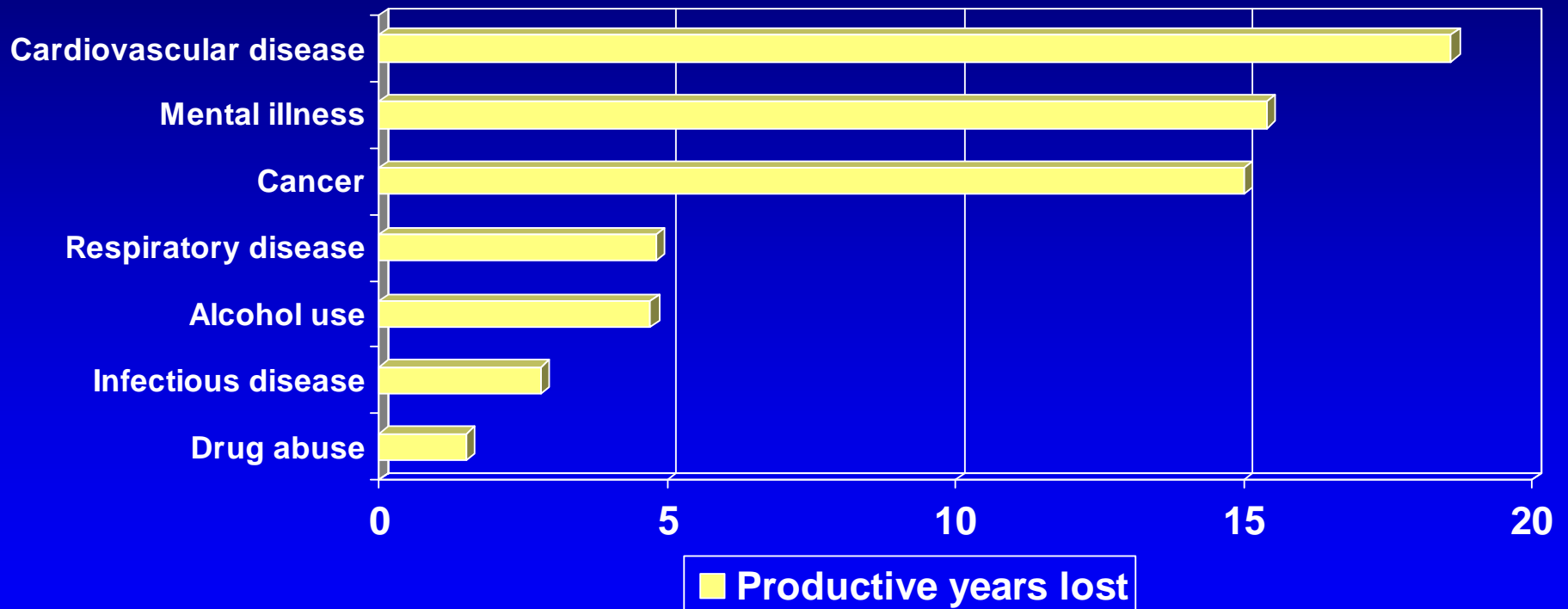
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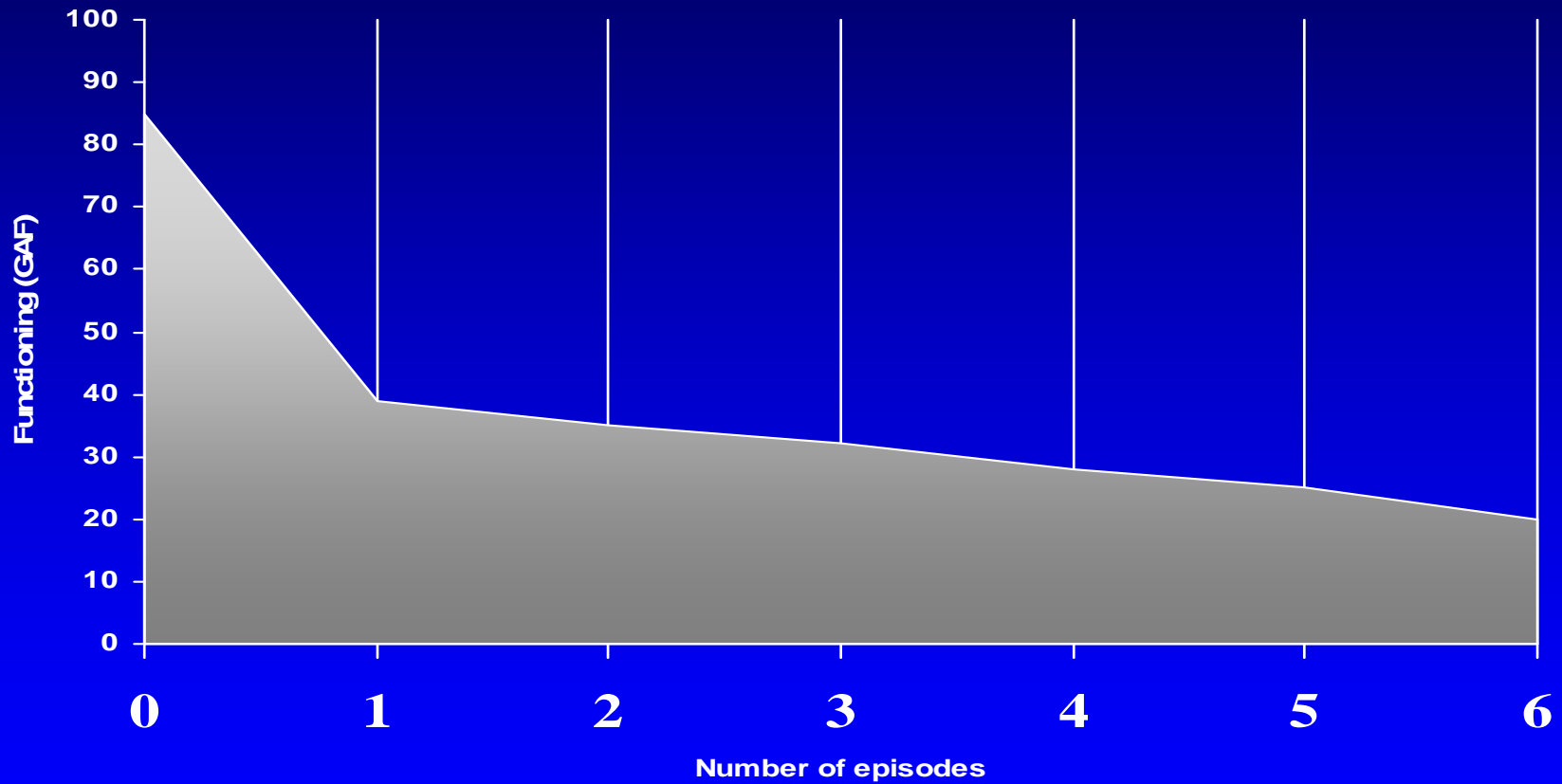
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Shortened productive lives



Source: Mental Health Report of the Surgeon General

Functioning as an effect of number of psychotic episodes



Effects of untreated initial psychosis

- Being psychotic reduces cognitive and social function. They may lose contact with family and friends, fail school, or drop out of work.
- Neurobiological deficit processes linked to symptom formation may possibly proceed unlimited as long as the patient is untreated.

Trials of Indicated Prevention

Study

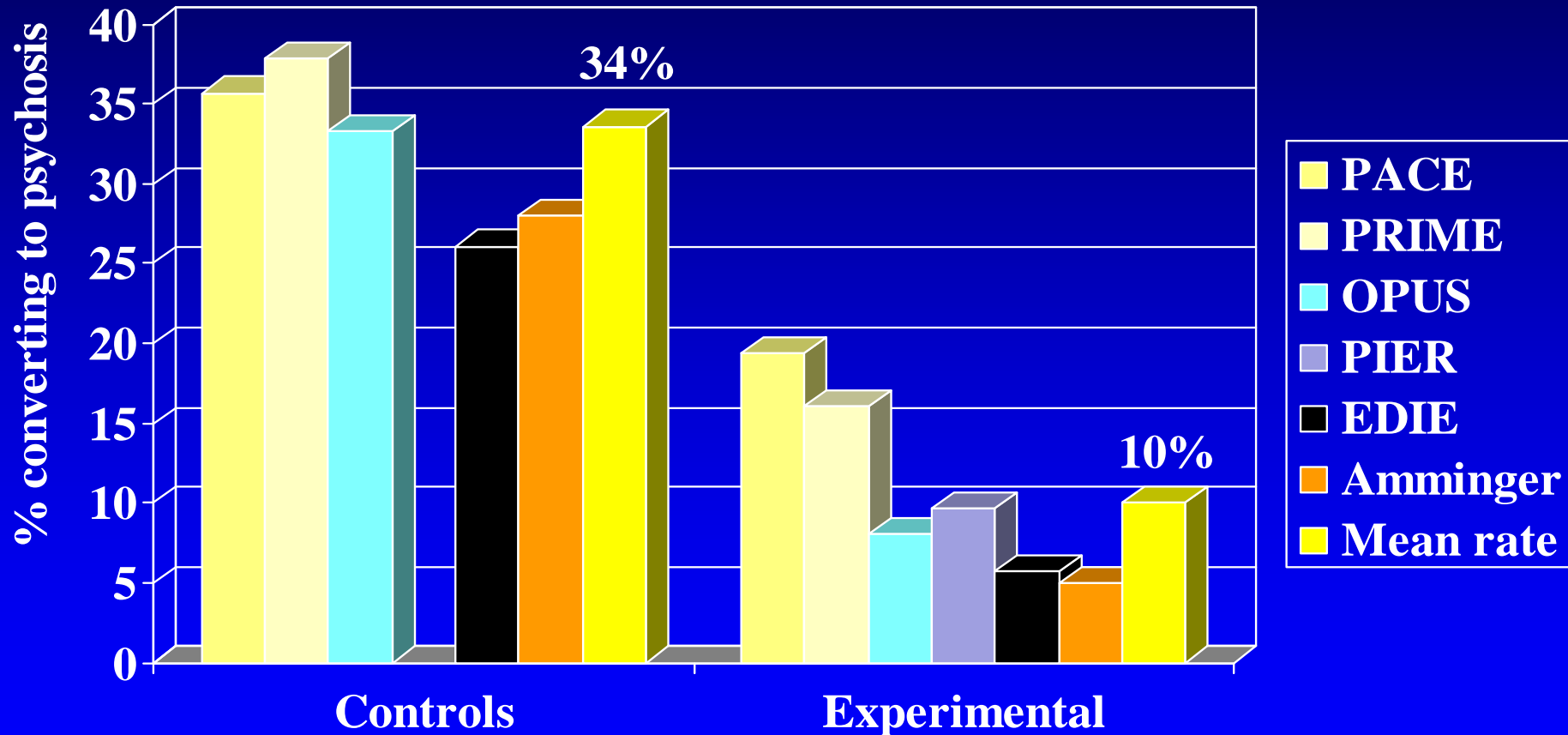
- Buckingham, UK
- EDIE, UK
- OPUS, Denmark
- TIPS, Norway, Denmark
- PACE, Australia
- PRIME, North America
- Amminger, Australia
- PIER, Maine

- EDIPPP, USA

Interventions

- Family PE, AP medication
- Cognitive therapy
- Family PE, ACT, AP medication
- Family PE, medication
- Cognitive therapy, AP medication
- Medication (olanzapine)
- Omega-3 FAs
- Family PE, ACT, SE, AP medication
- Family PE, ACT, SE, AP medication

Psychosis prevention studies: One year rates for conversion to psychosis



Portland Identification and Early Referral (PIER)

Reducing the incidence of major
psychotic disorders in a defined
population, by early detection and
treatment:

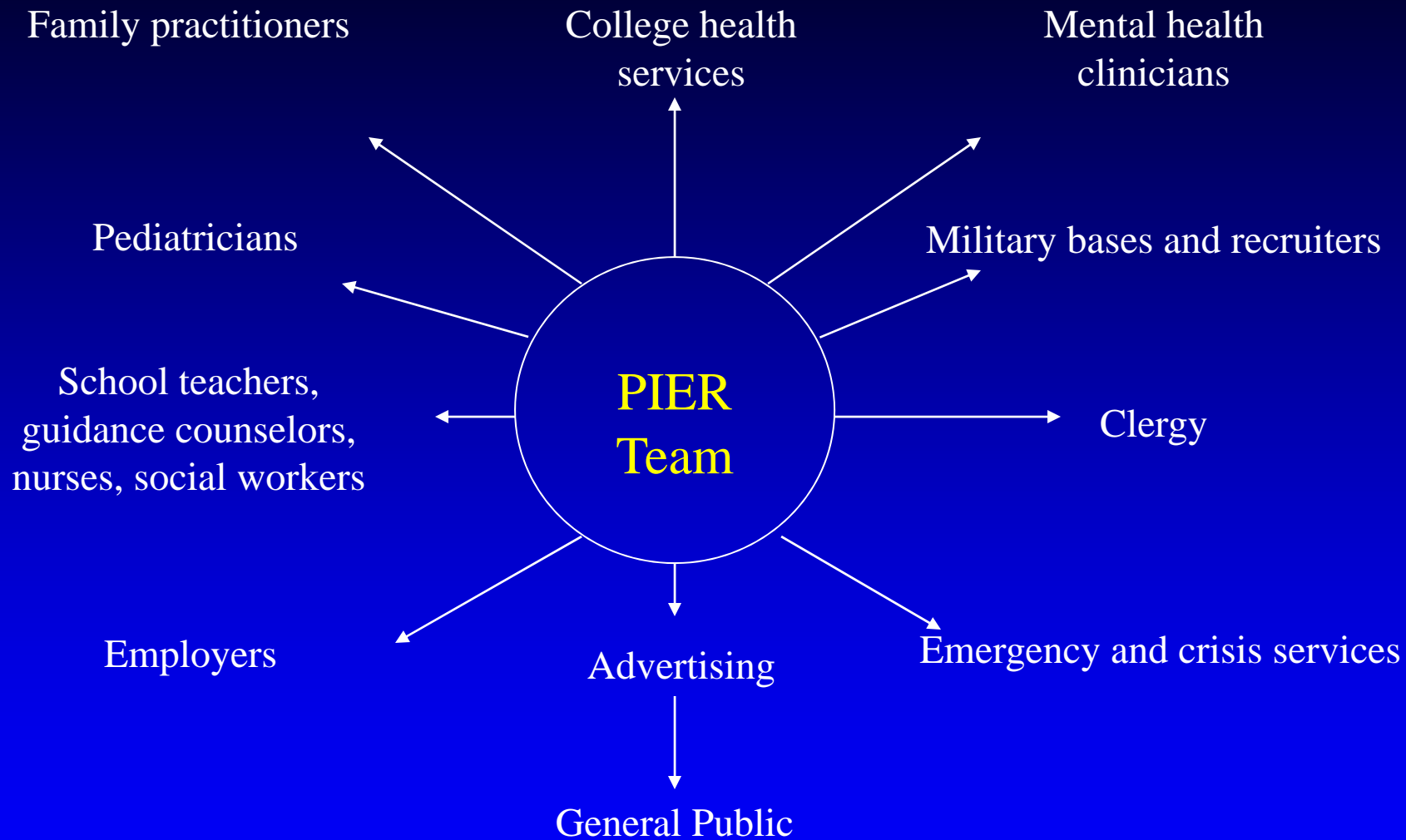
Indicated prevention

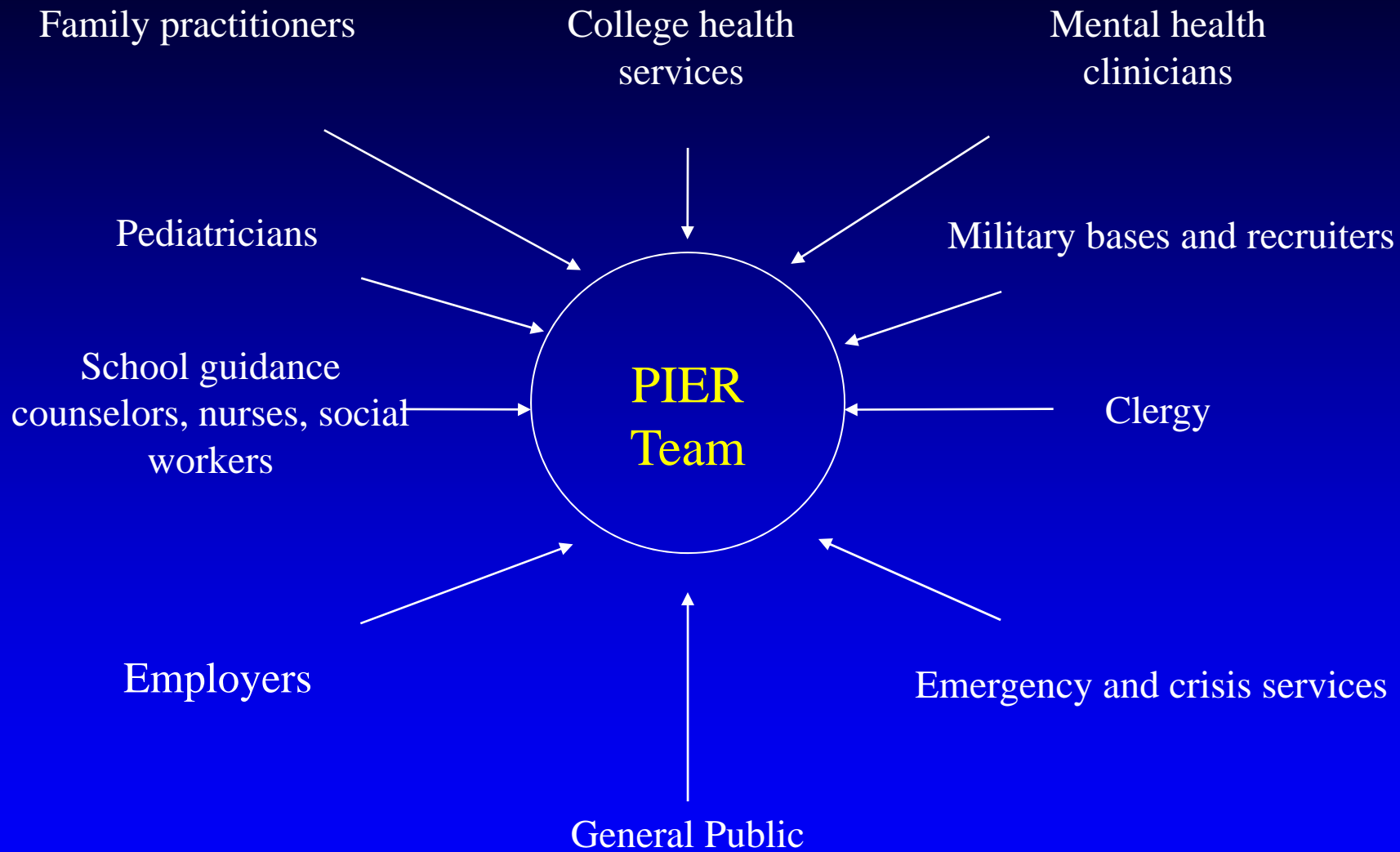
Greater Portland Area
Population 330,000



Professional and Public Education

- Reducing stigma
- Information about modern concepts of psychotic disorders
- Increasing understanding of early stages of mental illness and prodromal symptoms
- How to get consultation, specialized assessments and treatment quickly
- Ongoing inter-professional collaboration





Signs of prodromal psychosis

Schedule of Prodromal Syndrome (SOPS), McGlashan, *et al*

A clustering of the following:

- Changes in behavior, thoughts and emotions, with preservation of insight, such as:

Heightened perceptual sensitivity

To light, noise, touch, interpersonal distance

Magical thinking

Derealization, depersonalization, grandiose ideas, child-like logic

Unusual perceptual experiences

“Presence”, imaginary friends, fleeting apparitions, odd sounds

Unusual fears

Avoidance of bodily harm, fear of assault (cf. social phobia)

Disorganized or digressive speech

Receptive and expressive aphasia

Uncharacteristic, peculiar behavior

Satanic preoccupations, unpredictability, bizarre appearance

Reduced emotional or social responsiveness

“Depression”, alogia, anergia, mild dementia

Signs of prodromal psychosis

- Significant deterioration in functioning
 - Unexplained decrease in work or school performance
 - Decreased concentration and motivation
 - Decrease in personal hygiene
 - Decrease in the ability to cope with life events and stressors
- Social withdrawal
 - Loss of interest in friends, extracurricular sports/hobbies
 - Increasing sense of disconnection, alienation
 - Family alienation, resentment, increasing hostility, paranoia

Family-aided Assertive Community Treatment (FACT):

Clinical and functional intervention

- Rapid, crisis-oriented initiation of treatment
- Psychoeducational multifamily groups
- Case management using key Assertive Community Treatment methods
 - Integrated, multidisciplinary team; outreach PRN; rapid response; continuous case review
- Supported employment and education
- Collaboration with schools, colleges and employers
- Cognitive assessments used in school or job
- Low-dose atypical antipsychotic medication
 - 5-20 mg aripiprazole, 2.5-7.5 mg olanzapine, 0.25-3 mg risperidone
- Mood stabilizers, as indicated by symptoms:
 - SSRIs, with caution, especially with aripiprazole and/or a family history of manic episodes
 - Mood stabilizing drugs: lamotrigine 50-150 mg, valproate, 500-1500mg, lithium at therapeutic doses by blood level, 0.6-1.0

PIER: Outcomes after one year of treatment

Data for 148 at-risk cases from the first 6 years intake:
May 7, 2001- September 6, 2007

Efficiency of identification:

Diagnosis for those screened as at risk

n = 780

Referred for another disorder	314	40%
Prodromal	148	19%
Psychosis	79	10%
Any psychiatric illness	589	69%

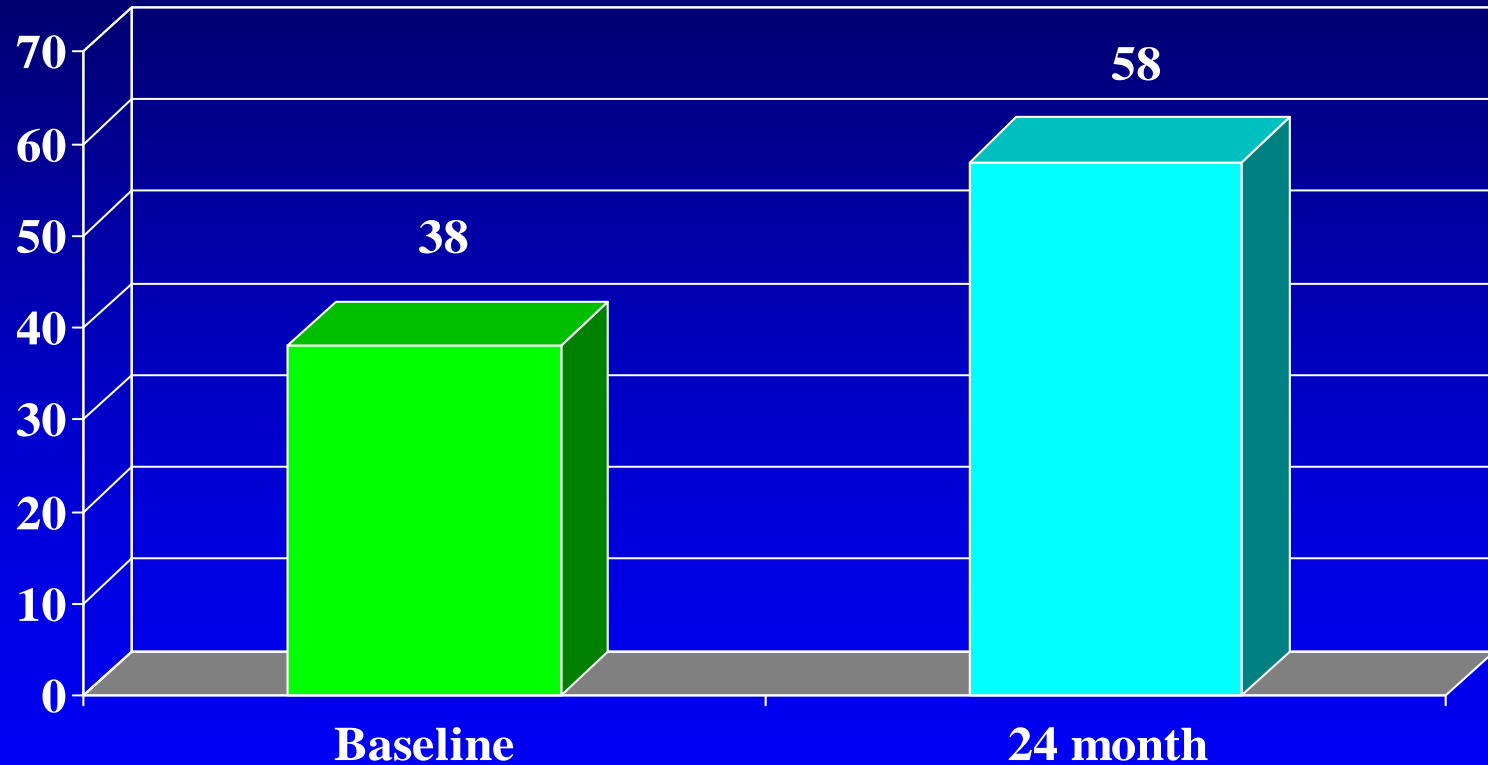
Demographics of the treated sample

Males (age range 12 - 27)	53%
Females (age range 12 - 24)	47%
Average age	16.5
DSM-IV Substance abuse disorder	15%

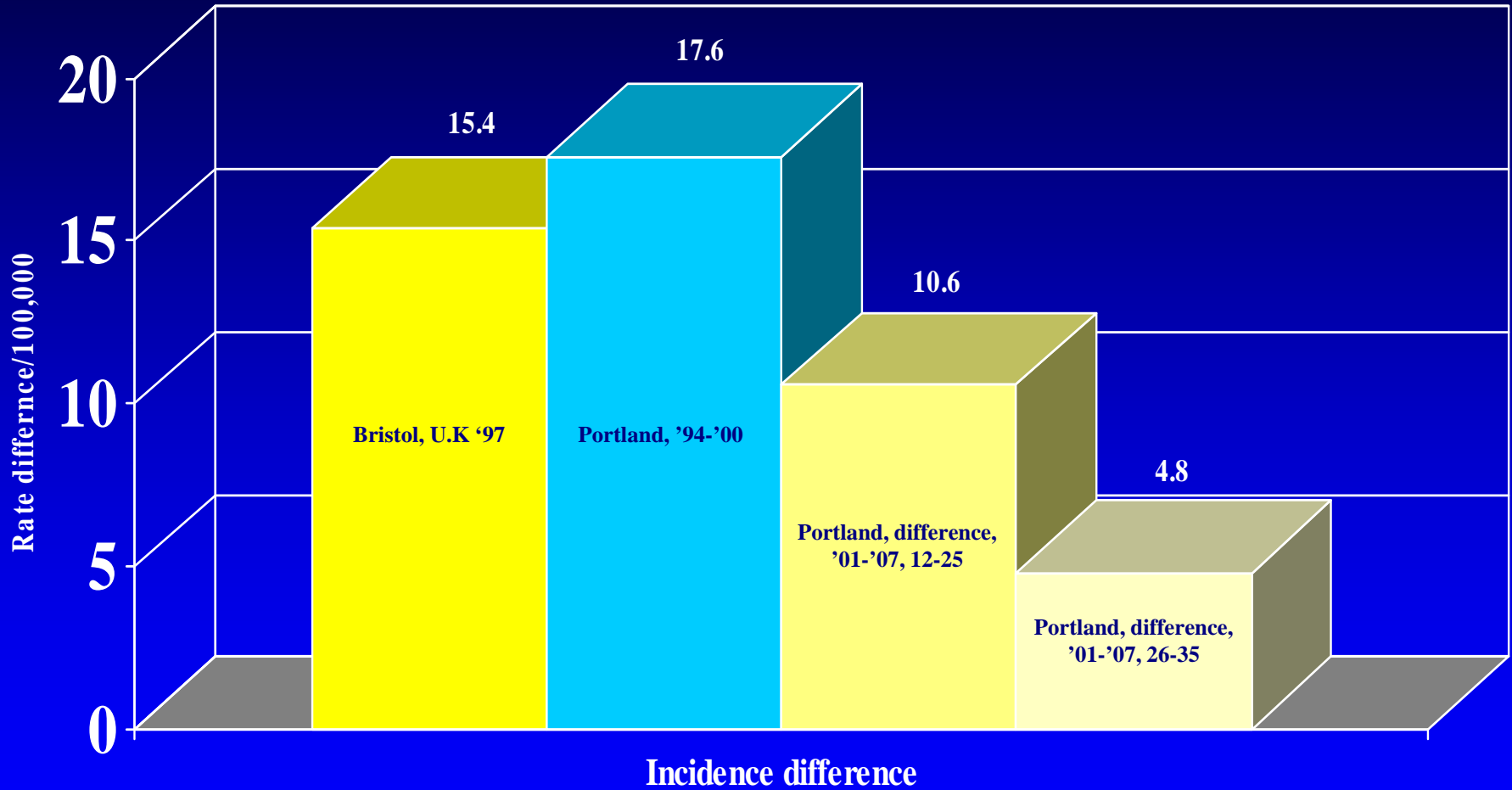
Treated cases converting to psychosis within 12 months (n = 93)

• Cases not converted	72	77%
• Cases converted, 1-6 days	5	5%
• Cases converted, 7-30 days	7	8%
• SOPS psychosis conversions	5	5%
• Schizophrenic disorder	4	4%
• Total SOPS conversions	9	10%

Overall functioning: Baseline and 24 months



Incidence effects: Portland vs. 3 urban areas vs. Bristol



■ AESOP, Bristol, 0-35

■ Portland, '94-'00

■ Psychosis, 12-25

■ Psychosis 26-35

Conclusions

- Public education is influencing attitudes, knowledge and behavior.
- Accurate referrals are coming from outside the mental health system.
- Treatment is blocking the final common pathway to psychosis.
- Medication at low doses is adequate but appears essential for prevention of imminent, and perhaps later, psychosis.
- Very low conversion rates and functional improvement accompany comprehensive treatment (~15%; ~5% for schizophrenic disorders).
- A substantial proportion of the incident population can be identified and prevented from developing psychosis.

PIER Sponsors

PIER has been made possible with the generous support of:

Robert Wood Johnson Foundation
National Institute of Mental Health
Center for Mental Health Services (SAMHSA)
State of Maine
Maine Health Access Foundation
Bingham Fund
Betterment Fund
Brain Foundation
American Psychiatric Foundation
UnumProvident Foundation
Wrendy Haines Fund

Other benefits, costs presently not determined

- Education
 - Higher graduation and academic achievement for public high schools
 - Higher college admission rates
 - Higher college graduation rates
- Labor
 - Higher employment, lower vocational rehabilitation costs
 - Fewer disabled workers
- Corrections
 - Fewer youth offenders
 - Readily available referral resource
 - Lower failure rate in youth centers

Other benefits, costs presently not determined

- Housing and social services
 - Many fewer homeless youth, visible mentally ill
 - Minimal demand on public and supported housing
- Medical and psychiatric services
 - Reduced pressure on emergency and crisis services
 - Reduced acute bed utilization
 - Lower demands on adolescent and young adult outpatient services
 - Reduced substance abuse and dual diagnosis
 - Reduced Medicare utilization, lifetime