Integrating mental health into primary care re-engineering in South Africa: A no-brainer

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Dept of Psychiatry and Mental Health
University of Cape Town
Outline

• Why include mental health?
  – Burden
  – Economic costs
  – Evidence for interventions

• How can we include mental health?
  – Framework
  – Roles for staff

• Some things are already happening...
  – PRIME
  – AFFIRM
Some definitions

• A no-brainer:
  – Dictionary definition: “An easy or obvious conclusion, decision, solution or task; something requiring little or no thought.”
  – Someone who is treated in primary care as though they don’t have a brain
Why include mental health in primary care re-engineering?
Prevalence of common mental disorders in SA

1 in 6 South Africans report depression, anxiety or substance use disorders during the past year (12-month prevalence: 16.5%; lifetime prevalence: 30.3%)


Burden of Disease: South Africa
Global Burden

- Neuropsychiatric disorders account for 13% of global disease burden
- Neuropsychiatric disorders comprise 5/10 leading causes of health disability in the world
- By 2030 depression will be 2\textsuperscript{nd} leading cause of health disability in the world (after ischaemic heart disease)
- Approximately 877,000 people commit suicide every year
Comorbidity

**HIV/AIDS:**
- People with mental disorder at increased risk of contracting HIV/AIDS
- Among HIV positive individuals prevalence of mental disorder is higher than general population eg depression (OR 2.0, 95% CI 1.3-3.0)<sup>1</sup>
- Adherence to ART is adversely affected by depression, cognitive impairment and substance abuse
- Treating depression improves ARV adherence and CD4 count<sup>2</sup>
- HIV-Associated Neuro-cognitive disorder among patients commencing ART in Cape Town:<sup>3</sup>
  - Mild neuro-cognitive disorder: 42.4%
  - HIV-Dementia: 25.4%

Non-Communicable Diseases: Eden trial (preliminary data)

**DEPRESSION COHORT**

<table>
<thead>
<tr>
<th></th>
<th>INTERVENTION</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>1289 (113)</td>
<td>1164 (102)</td>
</tr>
<tr>
<td>recruited (% of target)</td>
<td></td>
<td></td>
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</table>

**CO-MORBIDITY**

<table>
<thead>
<tr>
<th></th>
<th>INTERVENTION</th>
<th>CONTROL</th>
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</thead>
<tbody>
<tr>
<td>Depression with Hypertension</td>
<td>815 (63.2) n=1289</td>
<td>784 (67.35) n=1164</td>
</tr>
<tr>
<td>Depression with Diabetes Mellitus</td>
<td>413 (32.04) n=1289</td>
<td>422 (36.25 n=1164)</td>
</tr>
<tr>
<td>Depression with Chronic Respiratory Disease</td>
<td>380 (29.48) n=1289</td>
<td>367 (31.53) n=1164</td>
</tr>
</tbody>
</table>

**DRUGS**

<table>
<thead>
<tr>
<th></th>
<th>INTERVENTION</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>on antidepressant</td>
<td>183 (14.20) n=1289</td>
<td>245 (21.05) n=1164</td>
</tr>
</tbody>
</table>

Source: Fairall et al Preliminary baseline findings: Eden PHC101 cluster randomised controlled trial.
## NCDs: Eden trial (preliminary data)

### Hypertension Cohort

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients recruited (% of target)</td>
<td>1578 (138)</td>
<td>1660 (146)</td>
</tr>
<tr>
<td>HPT with Depression</td>
<td>815 (51.6) n=1578</td>
<td>784 (47.2) n=1660</td>
</tr>
</tbody>
</table>

### Diabetes Cohort

<table>
<thead>
<tr>
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<th>Intervention</th>
<th>Control</th>
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</thead>
<tbody>
<tr>
<td>Number of patients recruited (% of target)</td>
<td>865 (76)</td>
<td>974 (85)</td>
</tr>
<tr>
<td>DM with Depression</td>
<td>413 (47.75) n=865</td>
<td>422 (43.33) n=974</td>
</tr>
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</table>

### Chronic Respiratory Disease Cohort

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients recruited (% of target)</td>
<td>592 (111)</td>
<td>567 (107)</td>
</tr>
<tr>
<td>CRD with Depression</td>
<td>380 (64.2) n=592</td>
<td>367 (64.7) n=567</td>
</tr>
</tbody>
</table>
The treatment gap

Economic costs

South African Stress and Health Survey:

• Mean estimated lost earnings of $4,798 per adult per annum with severe mental illness (major depression and anxiety disorders), after adjustment for age, gender, substance abuse, education, marital status and household size

• Projections of total annual cost to South Africa in lost earnings: $3,6 billion in 2003 (2.2% of GDP)

• Cf Direct spending on mental health by DoH in 2005: $59 million

Lund et al (In press). Mental illness and lost income among adult South Africans. *Social Psychiatry and Psychiatric Epidemiology*
Treatment and prevention in low and middle-income countries

- **Depression:**
  - Generic antidepressants and psychosocial interventions (stepped care)
  - Cost-effectiveness comparable to ART for HIV/AIDS
- **Schizophrenia:**
  - 1st generation antipsychotics and community-based care
- **Hazardous alcohol use:**
  - Brief interventions at PHC

Patel et al 2007. Treatment and prevention of mental disorders in LMICs. Lancet
How can we include mental health in primary care re-engineering?
District Mental Health team
- Community Psychiatrist
- Psychologist
- Psychiatric nurses
- Social Workers
- Occupational Therapists

72 hr or 24 hr observation as per Mental Health Care Act

Training in PC101
- Detection
- Basic management
- Referral

Counseling for HIV depression and maternal depression

Mental health promotion Counseling
WARD BASED PHC OUTREACH TEAMS

PHC OUTREACH TEAM

Team Responsible for health of 1500 Families
No. of teams in a Ward (determined by population size)
Preventative, promotive, curative and rehabilitative services (work with EHOs)
Community Services

Professional Nurse
(Team leader)
Health Promoter
Environmental Health Officer

CHW 250 families

CHW 250 Families
CHW 250 Families
CHW 250 Families

Psychotropic adherence, Checking for domestic violence
Referral for counseling, User self-help support groups
### District Mental Health team

- Provide specialist training, supervision and support for the district

<table>
<thead>
<tr>
<th>Specialist</th>
<th>Generalist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrist</td>
<td>Family physician, Medical Officers</td>
</tr>
<tr>
<td>Psychologist</td>
<td>Counselors</td>
</tr>
<tr>
<td>Psychiatric Nurses</td>
<td>General PHC Nurses</td>
</tr>
</tbody>
</table>

- Assist in planning mental health service needs of the district (public health approach)
- Treat complex cases
## District hospital: Psychiatric Emergencies and Outpatients

<table>
<thead>
<tr>
<th>Target conditions</th>
<th>Service</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suicide attempts</td>
<td>• 24 hr and 72 hr observation, as per the Mental Health Care Act and PC101</td>
<td>Medical Officers</td>
</tr>
<tr>
<td>• Acute psychotic episodes</td>
<td>• Upward referral to specialist facilities</td>
<td>Nurses</td>
</tr>
<tr>
<td>• Severe mental disorders</td>
<td>• Outpatients</td>
<td>Consultation by psychiatrist and psychologist</td>
</tr>
</tbody>
</table>
## PHC Clinics and Community Health Centres

### Target conditions
- **Severe mental illness:**
  - Schizophrenia
  - Bipolar disorder
- **Common mental disorders:**
  - Depression
  - Anxiety
- **Childhood disorders:**
  - Behavioural
  - Developmental
- **Substance abuse**

### Service
- Identification, management and referral as per PC101
- Review of chronic medication management for severe mental illness
- Counseling (brief manualised group/individual psycho-social interventions)
- Counselor to train and supervise CHWs
- Mental health education material in waiting rooms

### Staff
- Medical Officers
- Nurses
- Counselors
### School health teams

<table>
<thead>
<tr>
<th>Target conditions</th>
<th>Service</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child/adolescent disorders:</td>
<td>• Identification, management and referral</td>
<td>Nurses</td>
</tr>
<tr>
<td>• Behavioural</td>
<td>• Counseling</td>
<td>Counselor</td>
</tr>
<tr>
<td>• Developmental Substance abuse</td>
<td>• Mental health component of health promotion programmes</td>
<td></td>
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</table>
## Community outreach teams

<table>
<thead>
<tr>
<th>Target conditions</th>
<th>Service</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe mental illness:</td>
<td>• Case identification</td>
<td>Nurse (team leader)</td>
</tr>
<tr>
<td>• Schizophrenia</td>
<td>• Psychotropic adherence</td>
<td>Community Health Workers</td>
</tr>
<tr>
<td>• Bipolar disorder</td>
<td>• Psychosocial rehabilitation eg user self-help support groups</td>
<td></td>
</tr>
<tr>
<td>Common mental disorders:</td>
<td>• Counseling groups</td>
<td></td>
</tr>
<tr>
<td>• Depression</td>
<td>• Checking for domestic violence</td>
<td></td>
</tr>
<tr>
<td>• Anxiety</td>
<td>• Public education and stigma reduction</td>
<td></td>
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</tbody>
</table>
## Mental health Indicators in District Health Information System

<table>
<thead>
<tr>
<th>Level</th>
<th>Input</th>
<th>Process</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHC</td>
<td>Staff, Budgets, Psychotropic meds, IEC materials</td>
<td>Mental health visits total, New mental health visits, No. of mental health visits by 5 diagnostic categories</td>
<td>Scripts, Counseling sessions, Referrals to hospital</td>
<td>Global Assessment of Functioning</td>
</tr>
<tr>
<td>District hospital</td>
<td>Staff, Beds, Budgets, Psychotropic meds, IEC materials</td>
<td>Admissions, Discharges, Average length of stay, Admissions by 5 diagnostic categories, Adverse events, Readmissions within 3 months.</td>
<td>Referrals to tertiary facility, Referrals back to clinic services, Scripts by drug class, Counselling sessions, Deaths, Unnatural deaths</td>
<td>Global Assessment of Functioning</td>
</tr>
</tbody>
</table>
Some things are already happening...
In low and middle income countries, 75% of people do not get the mental health services that they need.
PRIME District site: Kenneth Kaunda, North West Province
Symptom-based approach to the adult in primary care

HIV/AIDS
TB
Asthma/COPD
Diabetes
Cardiovascular disease
Mental health conditions
Women's health
Epilepsy
Musculoskeletal disorders
For more details...

- Prof Inge Petersen’s presentation tomorrow (Friday):
- 11h15 The inception phase of PRIME-SA. Developing a district mental health plan for the integration of mental health into the re-engineered PHC service platform in the Dr Kenneth Kaunda district
AFFIRM – SubSaharan Africa Hub

African partners:
• University of Cape Town
• Addis Ababa University
• Makerere University
• University of KwaZulu-Natal
• Stellenbosch University
• Human Sciences Research Council
• University of Ghana
• University of Zimbabwe
• University of Malawi
• BasicNeeds Ghana and Uganda
• Ministries of Health: Ghana, SA, Ethiopia

Other International partners:
• Columbia University
• Centre for Global Mental Health (IoP)
• Johns Hopkins University
1st Annual NIMH Hubs Meeting, Cape Town, 8-11 Aug 2012
South African trial

**Aim:** To narrow the treatment gap for maternal depression in South Africa by providing cost-effective care using lay community health workers in Khayelitsha

**Three phases:**
1. Formative phase (18 months)
   - Consultation with stakeholders
   - Qualitative research
   - Piloting
2. RCT (2 years)
3. Qualitative evaluation (6 months)
Policy recommendations

- Include mental health in primary care re-engineering and the NHI
- Improve monitoring of mental health delivery and outcomes in primary care
Acknowledgments

- Dept of Health: Prof Melvyn Freeman, Sifiso Phakathi, Nomvula Sibanyoni, Eva Mulutsi, Dudu Shiba
- PRogramme for Improving Mental health carE (PRIME) South Africa team: Prof Inge Petersen, Prof Arvin Bhana, Dr Lara Fairall: [www.prime.uct.ac.za](http://www.prime.uct.ac.za)
- Alan J Flisher Centre for Public Mental Health: [www.cpmh.org.za](http://www.cpmh.org.za)
- Department for International Development (DFID)
- National Institute of Mental Health