Early Intervention for Psychosis Programs: Guidelines and Best Practices

UC Davis/UCLA BHCDE Webinar
Chiachen Cheng, MD, FRCP(C), MPH
Child & Adolescent, Adult Psychiatrist
Medical Director, First Place Clinic and Regional Resource Program
EPION (Early Psychosis Intervention Ontario Network) Co-Chair
Objectives

As a follow-up to the introduction on September 22, 2016, this webinar will focus the best practice discussion to:

1. Models of EPI implementation across different settings (e.g., urban, academic, community, rural, remote north)
2. Tips to identifying and implementing system-wide measures
3. Case study from two province-wide surveys about the use of networks to deliver EPI services
Models of EPI Service Delivery
Original Best Practice Model: EPPIC Service Model

EPPIC Service Model:
The original model from which most EIP programs were based

1. Referral from external agencies
   - Youth Access Team (YAT)
     - Referral gateway to EPPIC
     - Mobile assessment, crisis intervention, and brief community treatment
   - Personal Assessment and Crisis Evaluation (PACE) Clinic
     - Identification and treatment of young people at risk of developing psychosis

2. Early Psychosis Prevention and Intervention Centre (EPPIC) outpatient case management
   - Specialist comprehension programme for young people 15-29 years with psychosis.

3. EPPIC Inpatient Unit (16 beds)
   - Family Work
     - Multi-family groups and individual family sessions
   - Group Programmes
     - Tailored, group-based interventions
   - Accommodation Housing and Support Services
   - Research Programmes
   - TREAT/STOPP
   - Vocation

4. EPPIC Statewide Services
   - Assist external agencies to incorporate an early psychosis focus into clinical programmes

5. Prevention Promotion and Primary Care (PPP) Programme
   - Prevention and promotion activities; facilitating partnerships with community service providers; development of early intervention programmes

Key:
- External referral pathway
- Internal referral pathway

Source:
EPI Core Components

• Early identification and access (e.g., public education, outreach to primary care)
• Assertive case management
  ▪ CBT, other non-medication based therapies
  ▪ Appropriate trials of antipsychotics with intensive metabolic monitoring
• Crisis management
• Vocational, educational intervention/support
• Family support
EPPIC Hub-Spoke Service Model

EPPIC Services Hub (Melbourne)

SAFE Project SPOKE (NSW)

District Center

District Center

Canadian Mental Health Association
Thunder Bay
Can these programs be reproduced in the US?
HOW TO TRANSLATE COMPLEX URBAN MODEL TO FIT LOW-DENSITY RURAL & REMOTE SETTING?
Literature (Rural Service Provision) Key Messages

- Distinct differences from urban challenges
- Increased role of primary healthcare
- Specialist within generalist model
- Longer DUP and decreased access
- Increased monies needed for similar services
- Role of social network
- Vital role of adequate education, training, ongoing supervision
Gordian knot:

How do we adapt an urban high density population model of care

• for rural areas?
• and be true to the model
• and provide good quality care
Two rural service models
Tale of two rural areas

- Northern (west)
  - size of Texas
  - 45% of Ontario’s landmass
  - 2% of Ontario’s population
  - ~250,000 people
  - 0.15 person/sq mi

- Southern (east)
  - size of Connecticut
  - 2% of Ontario’s landmass
  - ~4% of Ontario’s population
  - ~264,000 people
  - 10 people/sq mi
Rural Ontario EPI Service Models

Northwest: Specialized Outreach

Southeast: Hub and Spoke
Why Adopt Specialized Outreach?

- NW started out as hub and spoke
- Difficult for 1 FTE to deliver full basket of core services
  - e.g., geography very large
- Difficult to ensure Standards are followed
  - e.g., supervision by non EPI program/agency, training from a distance takes longer
- Mandate drift
  - e.g., lower incidence of psychosis compared to other service needs
- Higher staff turn-over
  - e.g., high staff burnout
Methods

- Data from the Matryoshka Project
  - 4 year, multi-site project
  - to examine the effects of new investments in community mental health programs on continuity of care
- Rural program data between 2005-2007
- Rural = population density <39 people/sq mi
- General functioning in the community
- Admissions to hospital, ER visits

Cheng et al. 2013
Specialized Outreach vs Hub & Spoke: clients serviced (enrolled) in each program

- **2005**: Hub & Spoke - 134, Sp. Outreach - 0
- **2006**: Hub & Spoke - 166, Sp. Outreach - 34
- **2007**: Hub & Spoke - 157, Sp. Outreach - 57
Specialized Outreach vs Hub & Spoke: community functioning

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outreach (n=15)</td>
<td>73.3</td>
</tr>
<tr>
<td>Hub &amp; Spoke (n=77)</td>
<td>70.1</td>
</tr>
</tbody>
</table>

High Score | Low Score

Canadian Mental Health Association Thunder Bay
Specialized Outreach vs. Hub & Spoke: hospital admissions

Admitted to Hospital in Last 12 Months (p<0.05)
- Outreach (n=10): 30.0% No, 70.0% Yes
- Hub & Spoke (n=66): 68.2% No, 31.8% Yes

Number of Nights in Hospital in Last 12 Months
- Outreach (n=7): 28.6% 30 nights or less, 71.4% >30 nights
- Hub & Spoke (n=21): 42.9% 30 nights or less, 57.1% >30 nights
Specialized outreach vs Hub & Spoke: emergency room visits

**Emergency Room Visits in Last 12 Months**

- Outreach (n=12): No 58.3%, Yes 41.7%
- Hub & Spoke (n=63): No 34.9%, Yes 65.1%

**Number of ER Visits in Last 12 Months**

- Outreach (n=7): 1 ER Visit 42.9%, >1 ER Visit 57.1%
- Hub & Spoke (n=22): 1 ER Visit 40.9%, >1 ER Visit 59.1%
Successes

Specialized Outreach
• Adherence to EPI best practices
• Quality, flexibility
• Consistent, regular psychiatry services

Hub & Spoke
• Local clinicians
• New EPI services in remote areas
• Formalized (new) partnerships
Challenges

Specialized Outreach
- Providing EPI services equally across region
- Centralized (not-local) clinicians
- Wide scope of practice

Hub & Spoke
- Variable access to physician services
- Part-time equivalent staffing
- Wide scope of practice
Policy implications

- Two different models
  - hub-spoke, modeled after Australia
  - specialized outreach adapted after hub-spoke didn’t work
- How to explain different outcomes
- Need follow up research to determine why differences
  - is it due to inequitable access to services?
  - Is it because of the models of care?
Question from Sept 22 webinar:

How do non-physician clinicians help clients while the medications are being sorted out?
System-wide Measures
Why System-wide Measures?

- Engagement of service users (clients/families)
- Support feedback about care received
- Aggregate data to inform planning and decision making
  - e.g., organization, local, regional, provincial
- Inter-agency communication
- Outcomes measurement
  - e.g., is the promise of EPI realized?
Measure Used

- Community Care Information Management
  - www.ccim.on.ca
  - Resident Assessment Instrument (RAI)
  - Ontario Common Assessment of Need (OCAN)
- OCAN (Zosky 2015)
  - Standardized assessment tool for community mental health sector
  - Based on Camberwell Assessment of Need
  - 2007-2015
    - 4 phases
      - initiation, pilot, implementation, operations/sustainability
Other Measures

• Ontario Healthcare Reporting Standards (OHRS/MIS)
  ◦ Program level financial, statistical data (e.g., expenses, FTEs, individuals served, number of interactions)

• Common Data Set (CDS)
  ◦ Program level client data (e.g., demographics, basic clinical info, legal status, basic client outcomes)

• Ontario Perception of Care (OPOC)
  ◦ Survey of client/family perception of care (e.g., access, services provided, participation, staff, discharge)

• ConnexOntario (Service Inventory)
  ◦ Inventory of mental health programs

Durbin & Selick, 2016 (draft)
Challenges

- Varying capacity in programs for data collection
  - e.g., high clinical volume, insufficient time/resources
- Not consistent collection across province
  - e.g., unreliable data quality
- Insufficient ongoing training
- Electronic medical records (EMR) compatibility
- Compliance/resistance from frontline
  - e.g., data collected “disappears” into database

Durbin & Selick, 2016 (draft)
Tips for System-wide measures

- Decide on simple, user friendly measures (just a few)
- Centralized administration
  - Centralized collection
  - Or, sufficient resources for local collection
- Regular feedback loop (of data) to programs
- Ongoing training and oversight
- Adequate resourcing for data collection, analysis, knowledge exchange
Case Example from Provincial Surveys

(Durbin and Selick, 2012, 2015)
Ontario EPI Program Standards (2011)

- **Service delivery domains**
  - Facilitating access and early identification
  - Comprehensive assessment
  - Treatment
  - Psychosocial support
  - Family support
  - Transition

- **Quality Support domains**
  - Training
  - Evaluation and research
  - Barrier free service
  - Network participation

- **Accountability domains**
  - Records, privacy, reporting
Both surveys ....

- 2 key informant surveys reached out to every funded EPI program (full service) in the province
  - Survey 1 (2012): feedback from 52 program sites (~92%)
  - Survey 2 (2014): feedback from 56 program sites (100%)

- Showed awareness of Standards
  - efforts to implement
  - shared learning & improvement
  - role of provincial network (EPION)

- Local health authority engagement
Survey 1: Standards 1-6 (2012)

% of programs implementing 'most of the time (out of n=52)
Survey 2: Standards 7-13 (2014)

- Provincial capacity
- Standards
  - Training & education
  - Research, evaluation and data collection
  - Barrier free services
  - Program networks
  - Accountability & regulatory (records, complaints, reporting)
- Feedback
  - Global (contribution to quality of care)
  - Strategies, challenges
  - Good practice examples
Provincial capacity

- 56 EPI program sites, 220 clinical staff, ~4000 clients
- EPI service in every region
- High heterogeneity
  - e.g., staffing and clients served
- 45% of program sites - 2 or fewer clinical FTE staff
- Average caseload: 21 clients/clinical staff
  - higher than recommended
- Signs of resource drift and erosion

* NHS Benchmarking Network, 2014
**Bird et al., 2010
Program networks

Aim:
• Networks are unique feature of the Ontario Standards
• EPI multi-component, complex model
• Network arrangement can expand capacity, quality, geographic reach

Most programs are part of a network, arrangements variable …
• one central program with satellite sites
• multiple small programs embedded in local agencies
• multiple dedicated programs
• traveling teams with local supports
• combination of the above models.
Program Networks

Network Benefit

- deliver full basket
- improve quality
- want more support

* % fair amount/great deal

Canadian Mental Health Association
Thunder Bay
Question from Sept 22 webinar:

How important is the team approach?
Research, evaluation & data collection

Aims:
• Help programs deliver high quality, relatively consistent care across the province

Survey feedback:
• Standard where programs reported lowest use and most challenge
  ◦ 50% = use data to monitor/improve practice ‘fair amount/great deal’
  ◦ 54% = more evaluation support would improve ability to deliver EPI
Professional Training & Education

Aims:
• Effective EPI delivery requires skilled professionals (team, community)
• Young field ➔ new knowledge, integrate into practice

Feedback:
• Many programs report training prepares staff to provide high quality service (77%) 
• More support could improve delivery of EPI (41%) 
• Small programs similar to large, many reported support from their networks
Professional Training & Education

Areas where programs want more training*

- Medications
- EPI model
- Psychosis
- Teamwork
- Psychotherapies
- Public education
- Family support
- Health monitoring

*% 'fair amount, great deal
Acknowledgements

• SISC (Standards Implementation Steering Committee)
  ◦ Dr Janet Durbin, Avra Selick

• Funders:
  ◦ CIHR Strategic Training Program (Research in Addictions and Mental Health Policy and Services, RAMHPS)
  ◦ Ontario Mental Health Foundation
  ◦ Ontario Ministry of Health & Long-Term Care
  ◦ Sick Kids Foundation (jointly with CIHR-Institute of Human Development, Child and Youth Health)