



Early Intervention in the Real World

Filling the implementation gap: a community–academic partnership approach to early intervention in psychosis

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Abstract

Aim: The aim of this study was to describe the development of a sustainable community early psychosis programme created through an academic–community partnership in the United States to other parties interested in implementing early psychosis services founded upon evidence-based practices within community settings.

Methods: The service was developed around a sustainable core of key components, founded upon evidence-based practice, with additional flexible elements that could be adapted to the needs of the individual commissioning county. This paper describes the ways in which funding was sourced and secured as well as the partnerships developed through this process.

Results: Successful development of the Prevention and Recovery from Early Psychosis (PREP) programme in

San Francisco County, California. PREP clinicians have received extensive training in the evidence-based approaches that are available through the programme and treated 30 clients and their families in the first year of operation.

Conclusions: Development of a sustainable community programme of this type in a non-universal health-care setting, which is historically seen as non-integrated, required extensive partnering with agencies familiar with local resources. Implementation of the community–academic partnership bridged the gap between research and practice with successful integration of fidelity practice at the community level. The community partners were effective in sourcing funding and allocating resources, while the academic side of the partnership provided training in evidence-based models and oversight of clinical implementation of the model. Stringent evaluation of the impact of the service is our next focus.

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INTRODUCTION

Early intervention in psychosis is a major advance in psychosis treatment that offers specialized services for individuals with first-episode or recent-onset psychosis. The aim is to reduce the duration of untreated psychosis, which has been associated with better short- and long-term outcomes,^{1,2} by providing treatments during the ‘critical window’ following the onset of the psychotic disorder³ to ameliorate the

impact of symptoms, improve functioning and reduce relapse. There is growing evidence that Early Intervention services (EI services) can reduce the burden of psychosis for the consumer, their families and society at large.^{4,5}

EI services have predominantly been implemented in countries with universal health-care systems (i.e. the Department of Health, in the United Kingdom, promoted the development of 50 EI services by 2004⁶). However, even within countries

where EI has received strong government backing, service implementation has not been without difficulty. For example, Tiffin and Glover⁷ reported that there was limited integration with child and adolescent services despite recommendations for this integration as laid out in the Policy Implementation Guideline.⁸

Implementing an integrated service in a predominantly non-integrated health-care system with both public and private health-care components required innovative partnership development that led to a programme breadth not possible in other health-care settings. This paper presents an account of the development of an EI service in San Francisco, California, one of the few EI services based on a community-academic partnership currently in existence in the United States. This partnership, the challenges faced and the approaches developed to overcome these obstacles will be described in this paper.

In 2005, the World Health Organization and the International Early Psychosis Association jointly published the Early Psychosis Declaration,⁹ proposing five key themes integral to the development of EI services worldwide: (i) improving access; (ii) engagement and treatment; (iii) raising community awareness; (iv) promoting recovery; and (v) family engagement and support and practitioner training. Associated with these five areas were measurable outcomes by which EI services could determine whether they were adhering to these themes. However, as Dodgson and McGowan¹⁰ stated, with regard to EI service development, 'service delivery . . . is about translating best-practice principles and the vision expressed in the Early Psychosis Declaration, into a clinical setting' (p. 45). This is the process through which all developing EI services must proceed and one which Prevention and Recovery in Early Psychosis (PREP) proceeded through with the assistance of its partner agencies.

EARLY STAGES OF PREP

The PREP partnership originated from two intersecting interests in developing an early psychosis treatment programme in San Francisco. First, a co-author (RB) and CEO of Family Service Agency of San Francisco (FSA) experienced a great amount of frustration while trying to access appropriate care for a family member who was exhibiting early signs of psychosis, despite his access to a number of available assessment and treatment services in the SF Bay Area. This led him to first research and then contact University of California, San Francisco

(UCSF) researchers working in innovative ways with this population. At the same time, early psychosis researchers in the Department of Psychiatry at UCSF were frustrated with the lack of clinical services to which they could refer research participants seeking treatment. Srihari *et al.*¹¹ reported similar frustration in seeking services for research participants engaged in the PRIME (Prevention through Risk Identification, Management and Education) study at Yale University, which they cite as impetus for the development of STEP, an early psychosis clinic. Initial attempts to develop direct services within the Department at UCSF were unsuccessful, as outpatient services at that time lacked the case management capacity necessary for this population. In addition, early psychosis services for adolescents and young adults did not fit neatly into either of the existing adult or child/adolescent service areas.

Through this connection, a community-academic partnership was formed with FSA providing extensive experience in developing comprehensive service systems for youth and adults and UCSF providing training in evidence-based practices for early psychosis, including formal diagnosis, medication management and Cognitive Behavioural Therapy for psychosis (CBTp). The PREP partnership was born, its primary goal to rigorously and effectively provide treatment for those with recent-onset psychosis or at ultra-high-risk of developing psychosis. PREP embodies the principles of Community Participatory Partnered Research as described by Jones and Wells,¹² emphasizing equal partnership in the implementation of 'research informed programs' and can be thought of as being on a continuum between research originating in an academic setting and research that originated in the community. Green *et al.*¹³ argued that academic-community partnerships are essential in programme development as 'no one agency has the resources, access and trust relationships to address the wide range of community determinants of public health problems' (p. 21). They go on to state that productive partnerships commence with the identification of a problem (in the case of PREP, the lack of adequate services for individuals experiencing early psychosis), shared ownership of goals and missions and are built on the strengths of each partner. As described, this partnership was forged from the outset rather than later establishing partnerships and so benefitted from an established relationship and shared vision developed by the partners. More importantly, it drew upon the strengths of the partners to use academic-level stringent implementation with measured fidelity and evaluation of the programme, combined with the expertise of the

Community–academic early intervention

TABLE 1. Active partners in PREP-SF

Partner	Partner since	Components brought to PREP
UCSF Psychiatry	2007	Training in evidence-based practices and expertise in diagnosis and treatment; programme evaluation and research.
Family Service Agency – SF	2007	Expertise in providing community-based treatment; brought innovative funding options.
Mental Health Association of San Francisco	2008	Felton Institute provides training structure and capacity to document client outcomes.
Sojourner Truth Foster Family Service Agency	2009	Long-term expertise in community advocacy outreach and stigma reduction.
Larkin Street Youth Services	2009	Long-term expertise in foster care in San Francisco; and particular, outreach to Bayview Hunter's Point; a predominantly African–American community. Intensive Treatment Foster Care Programme that works with emancipated and transitional age youth.
		Long-term expertise in serving transitional aged troubled youth, particularly homeless, in San Francisco.

PREP, Prevention and Recovery from Early Psychosis; SF, San Francisco; UCSF, University of California, San Francisco.

community partners to implement services within the publicly funded mental health-care system.

Fortuitously, at the same time that the partners began developing PREP, a funding stream designated specifically for preventative mental health services became available from the State of California. The Mental Health Services Act (MHSA) was passed in 2005, stipulating that personal income over 1 million dollars annually be taxed at an extra 1% rate; these funds were then distributed at the county level to support mental health services with a prevention or early intervention focus. PREP partners educated the San Francisco County Department of Public Health and community members about EI for psychosis. Subsequently, a model was proposed as part of the SF County's plan and a request for proposal was issued for an early psychosis programme. During this time, FSA recruited our third partner, Mental Health Association of San Francisco (MHA), an advocacy organization who could provide community outreach and education. This collaboration helped to forge partnerships with Larkin Street Youth Services, an organization focused on services for homeless youth, who now house a PREP peer outreach provider, and Sojourner Truth Foster Family Service Agency, who use a PREP clinician to serve the foster care system (see Table 1 for a description of partner agencies).

WHO PREP SERVES

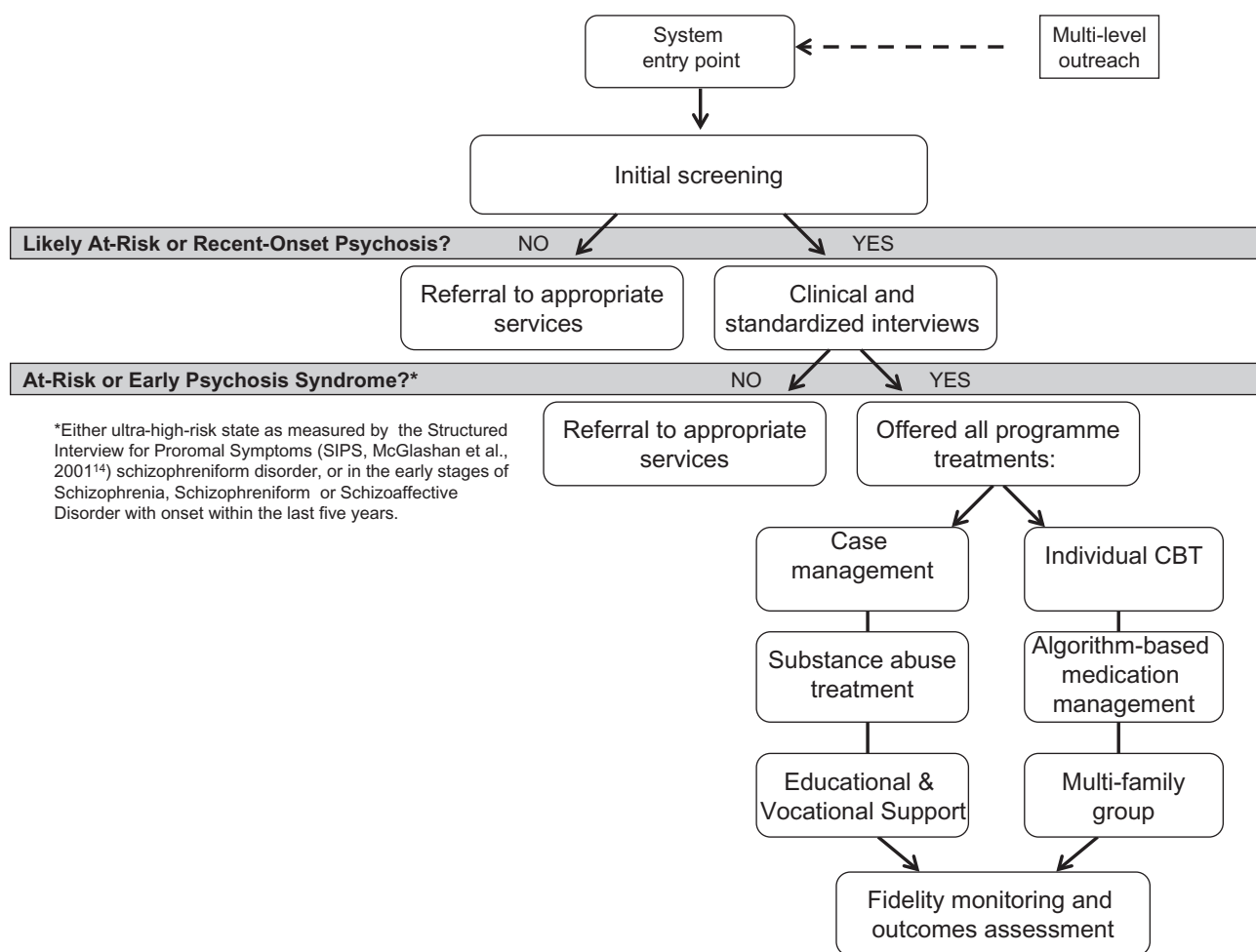
PREP offers services for up to 2 years to individuals age 12–35 with either a recent-onset of psychosis (defined as an onset in the last 5 years) or at risk of developing psychosis. While early intervention programmes often focus on clients with onset in the

past 2 years, we found through pilot work that most referrals of 'first-episode' schizophrenia from the community were clients with multiple episodes over the past few years. In order to meet the needs of the community while educating referral sources about early psychosis, we chose to expand the entry criteria of the programme for the first several years, until we had reached capacity. Once we have improved our ability to catch new onset cases, we plan to restrict the criteria to the critical window,³ during which most change occurs, with an emphasis on first episode. Clients receive up to 2 years of services before being discharged to other care, allowing us to maintain low caseloads of 16–18 clients per full-time clinician.

PREP is a recovery-based service that provides comprehensive evidence-based care. Clinicians conduct a thorough diagnostic intake and assessment, collaborating with family members and consumers to determine a triage of services appropriate to the needs of the individuals being served and their families. Services include algorithm-based medication management, strength-based care management, individual cognitive behavioural therapy, psychoeducational multi-family groups, vocational/educational support and substance use treatment; all are monitored for ongoing outcomes and the programme works towards an integration of consumers into the highest level of functioning in their lives as possible. Figure 1 shows the consumer flow through PREP and services offered.

In developing PREP there was an initial and sustained commitment to providing multiple evidence-based interventions to meet the needs of PREP clients within one service setting. The interventions chosen reflect those recommended within the Early Psychosis Consensus Statement.⁹

FIGURE 1. Prevention and Recovery from Early Psychosis (PREP) consumer flow chart.



The decision to develop a service based on established evidence was supported by all partners and in line with San Francisco County’s requirement that county-funded services provide interventions that are best practice and evidence-based. Table 2 summarizes these interventions, training involved and fidelity monitoring.

Initial partnership challenges and solutions

Funding

Initially, FSA and UCSF donated resources and initiated the programme on funds from private foundations and donors. At this early stage, PREP especially benefitted from a Gap Founders award. This annual prize, awarded from the retail company to recognize innovative community change, included both financial support and management expertise in start-up through dedicated time from Gap employees.

Additionally, foundation funding was secured to support the programme during its pilot phase, and FSA contributed additional monies from its donation revenue. These funds supported initial development of the programme until receipt of San Francisco County MHSa Prevention and Early Intervention funding. In the early stages, PREP greatly benefitted from sourcing these creative funding streams to cover start-up costs and we would encourage others attempting to develop services to explore alternative funding streams.

Collaborative governance

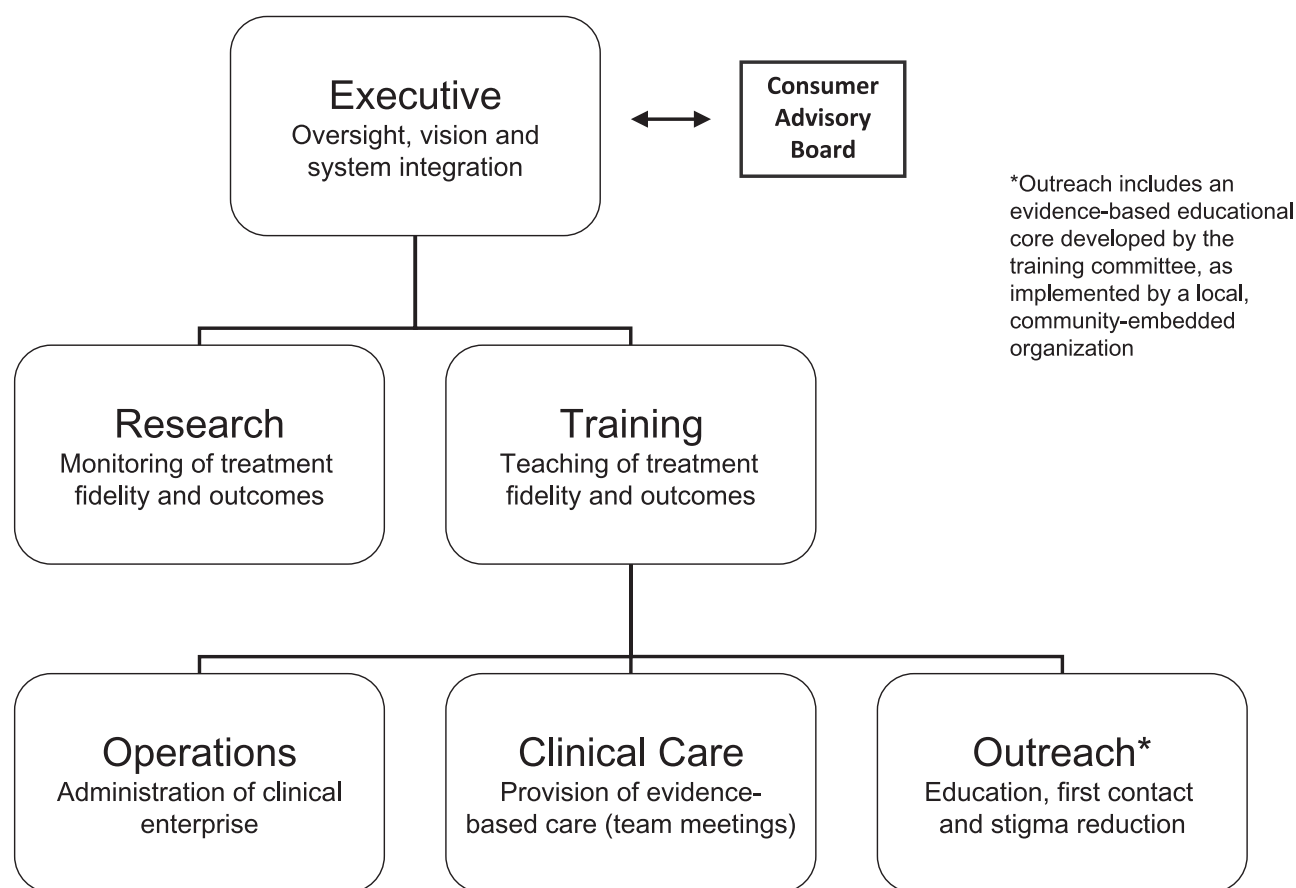
Early governance issues and lack of clear decision making processes resulted in a challenging start-up. Using the donated time from the Gap foundation award, these issues were adeptly addressed by high-level management from the Gap who drew upon successful business models to develop a

TABLE 2. Summary of services offered through PREP

Intervention	Rationale for inclusion	Model	Training	Fidelity monitoring
Individual cognitive behavioural therapy (CBT)	Reduce distress associated with positive and negative symptoms, develop relapse prevention plan	The first author was trained in CBT in the United Kingdom and provided training to PREP clinicians drawing upon established model of CBT for psychosis ^{15,16}	20-h intensive didactic training followed by weekly supervision	Trainer listens to and rates taped sessions monthly until competence is reached
Care management	Address care management needs including housing and benefits	Adapted care management model drawn from Full Service Partnership model of Case Management ¹⁷ and Assertive Community Treatment	In-house training through FSA	Addressed in supervision and case conference
Substance abuse treatment	Address co-morbid substance abuse issues	County wide harm reduction initiative with local training in motivational interviewing	In house training through FSA	Addressed in supervision and case conference
Educational and vocational support	Support return to work or school or assist in maintaining current performance	Individual placement and support vocational model ¹⁸	Vocational and educational support worker and supervisor joined on-line 12 session webinar	Use of Dartmouth Supported Employment Fidelity Scale
Medication management	Provide medication management in line with best-practice guidelines	Based on data reviewed in Kane ¹⁹ and the APA antipsychotic medication algorithm, modified to minimize metabolic risk. For ultra-high-risk, data are as yet inconclusive and antipsychotics are not routinely recommended ²⁰	4 h of didactic training, plus reading on algorithm evidence-base, monthly supervision and chart monitoring.	Chart monitoring to evaluate: total antipsychotic daily dose, antipsychotic poly-pharmacy and metabolic monitoring
Multi-family group (MFG)	Provide family interventions and family support	Multi-family groups in the treatment of severe psychiatric disorders ²¹	3-day training on MFG followed by monthly phone supervision with supervisor at PIER programme	Submit taped session quarterly for review and fidelity monitoring

APA, American Psychiatric Association; FSA, Family Service Agency of San Francisco; PIER, Portland Identification and Early Referral; PREP, Prevention and Recovery from Early Psychosis.

FIGURE 2. PREP governance structure.



state-of-the-art governance structure. This structure consists of five standing committees: Executive, Operations, Evaluation, Training and Outreach. Each committee has a defined charter, scope of competency, membership, chair, meeting schedule and performance metrics. In order to ensure a smooth collaboration between partners, each committee is made up of representatives from each of the partner agencies. See Figure 2 for governance model.

Outreach

Outreach to this typically difficult-to-engage population was further hampered by a sudden change of leadership in the MHA partner, contracted for advertising, public education and client recruitment. FSA and UCSF took over outreach efforts for a 6-month period despite this not being their core competency. Through this interim period, MHA continued to participate in the governance of the PREP programme. Once MHA hired new leaders and recruited new staff for the PREP programme, they resumed their lead

role in outreach and recruitment. Recently, MHA has hired staff to work specifically on PREP outreach with a particular focus on incorporating social media to directly connect with the transitional age youth population. Additionally, MHA together with UCSF have successfully adapted academic-level presentations on early psychosis for dissemination to community clinicians and youth. The success of the partnership in collectively overcoming the temporary incapacity of one of its partners highlights a strength of this collaborative model. Outreach staff is dedicated to providing outreach and education to the community, thus releasing more time for the care managers to work directly with clients. These positions are staffed in part, by consumers and family members with first-person lived experience of mental health problems, to more effectively outreach directly to youth and families, as well as clinicians and other potential referral sources, thus fulfilling two of the three important components known to be related to stigma reduction, education and contact.²²

Challenges for community partners

Most EI programmes for psychosis in the United States are offered in university-based research settings. In contrast, it was the intention of the PREP founders (FSA and UCSF) to develop a treatment approach that could be implemented in a community-based setting within the constraints of publicly funded mental health treatment. The goal was to create a model that could be taken to scale within any county treatment system rather than remaining a university-linked programme that would only serve those few clients fortunate enough to live within a university community. One implication of this commitment was that masters-level, unlicensed non-profit therapists would primarily deliver extremely rigorous evidence-based treatments. Training community clinicians in evidence-based practices (EBPs) with rigorous fidelity requirements is a difficult challenge for all community-based social service agencies.²³ In approaching this programme, FSA drew upon several years experience in implementing EBPs in the adult and senior mental health programmes. In these earlier efforts, FSA had learned that key elements of successful implementation included reducing high clinician caseloads, rewarding the achievement of core competencies and mandating on-going supervision to ensure integration of new learning within PREP. Another important element was the acknowledgement that clients in community settings differ from the ‘pure’ research subjects reported in academic journals and working with clinicians to identify treatment interventions to address multiple complex difficulties within clients.

As additional community partners were brought into the partnership, it was necessary to educate them not only in the provision of specific treatments but also in the general concepts of rigorous provision of evidence-based treatment. Key elements of the success of this effort included:

- *A shared electronic health record, with a rigorous quality assurance process.*
- *A shared treatment culture reinforced by the Executive Directors of each agency, meeting monthly in the Executive Committee. This treatment culture was derived from the goals and shared vision established early in the partnership and consistently reinforced throughout trainings and supervision. It consisted of a recovery-oriented, community-focused and outcome-driven approach.*
- *A collaboratively developed budget in which it was understood that no single partner ‘owned’ any pot of money; all resources available to the partnership were deployed to meet the most critical needs*

as determined collaboratively by the partnership. However, FSA operates as the lead fiscal operator for the purposes of the county contract under the direction of the executive committee.

- *Clinical supervision in each EBP provided by UCSF to each therapist thus ensuring fidelity to the culture of providing EBPs.*
- *A clear commitment that mastering the relevant EBPs was a requirement for therapists to continue to be employed by the programme. Ensuring that management and supervisory staff were committed to this enabled a relatively seamless uptake of EBPs within PREP.*

Challenges for academic partners:

As an integral PREP partner, UCSF had to adapt to a more community-oriented model. Researchers were encouraged to adopt consumer-driven language with a strong recovery focus, in line with the treatment culture of PREP, and develop awareness of unintended stigma maintained by a medical model. Jones and Wells¹² recommended that academic partners ‘should seek the mentoring of community leaders to learn the history and culture of the community and develop an awareness of their own background and history of their institution’s involvement in the community’ (p. 409).

PREP EXPANSION

From an organizational standpoint, PREP was designed to be expandable and sustainable. Through a focus on evidence-based treatments and community outreach, an initial core of services was based on a consistent treatment delivery vision. It soon became clear, however, that the programme also needed flexibility ‘on the ground’, where staff met actual consumers, family members and community stakeholders. The PREP partners, therefore, currently envision our service as a ‘sustainable core’, around which is constellated ‘flexible elements’ (see Table 3).

The PREP organizational principle: a ‘sustainable core’ is defined as elements that have enough free-standing evidence on their own to suggest fidelity monitoring according to centralized training and guidelines. The ‘flexible elements’ are defined as elements that require significant logistical and cultural modification to suit the resources and population of particular regions. This ‘flexible and sustainable’ paradigm has allowed implementation of the larger programme vision in feasible steps, including the organized hiring and training of programme staff,

TABLE 3. The Prevention and Recovery from Early Psychosis organizational principle

Sustainable core	Flexible elements
<p>Assessments and treatments with demonstrated evidence base in early psychosis</p> <ul style="list-style-type: none"> Antipsychotic medication algorithms Individual cognitive behavioural therapy with case management Psychoeducational multi-family group Standardized diagnostic interviews Vocational/educational support <p>Committees representing vision regarding diagnosis-specific services</p> <ul style="list-style-type: none"> Executive Committee with stakeholders from academia, community mental health and consumer and family groups Research and Evaluation Committee responsible for ongoing programme evaluation Training Committee responsible for teaching all clinical staff core knowledge and vision and ongoing fidelity principles 	<p>Committees representing region-specific implementation strategies</p> <ul style="list-style-type: none"> Outreach Committee focused on identifying and maximising points of entry and reducing stigma. Strong knowledge of local resources and connections with local service providers Operations Committee responsible for implementing evidence-based practices across the treatment system and within county services Clinical Care Committee (team meeting) responsible for consensus decisions about treatment

and steady expansion of service delivery to consumers and families. Future directions include more direct-to-consumer marketing strategies and incorporating consumer perspectives into care delivery. Ongoing evaluation is an essential element; our evaluation and research committee closely scrutinize outcome data, including clinical and functional outcomes and satisfaction with the service, at quarterly intervals. Evaluation will include an assessment of cost-effectiveness, including comparison with local treatment as usual data. We expect to report on this within the next year. Fidelity to different PREP elements (CBTp, MFG, etc.) will also be monitored to ensure PREP is providing evidence-based interventions in line with the service vision.

CONCLUSIONS

We hope this paper presents the considerable benefits of developing an EI service through a community-academic partnership. Through a commitment to the PREP vision of recovery from psychosis, all partners were able to draw upon organizational strengths and work within a governance structure developed from a primarily business-oriented focus. We would encourage others seeking to implement EI services in settings without an integrated health system, such as the United States, to develop partnerships that address the multiple components of an EI service, including evidence-based intervention for psychosis and co-morbidities, knowledge of community resources, care management and outreach. In forming this partnership, we were able to successfully compete for both private

and public funding and use these to develop a comprehensive service. Our expertise in partnering has also allowed us to develop connections that bridge the gap between child and adult services in the county and to ensure that as clients are discharged from PREP, they are transitioned smoothly to other services if required. We hope that by providing such a model, EI services for psychosis can be developed in multiple communities, increasing access to care and promoting recovery for this population.

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