# Supplemental Table 1. Qualitative interview participant demographic characteristics (N = 50)

Variable	n (%)	
Gender		
Male	16 (32%)	
Female	34 (68%)	
Race		
Asian or Pacific Islander	2 (4%)	
Black or African American	9 (18%)	
White	36 (72%)	
Native American or Alaskan Native	0 (0%)	
Other/more than one race	2 (4%)	
Prefer not to disclose	1 (2%)	
Ethnicity		
Hispanic or Latinx	3 (6%)	
Non-Hispanic or Latinx	45 (90%)	
Prefer not to disclose	2 (4%)	
Troid flot to dississe	= (178)	
Role		
Primary care provider	14 (28%)	
Mental health personnel	14 (28%)	
Leader	15 (30%)	
Patient	7 (14%) <sup>′</sup>	

# Supplemental Table 2. Illustrative Quotations from Interviews

#### **RE-AIM** Quotations Construct

Leader: What's also really striking for me is how severely impaired so many of the people are who are being referred which suggests that there's a big backup for people who have really evident mental health problems.

Mental health provider: People are getting care that never would have stepped into a therapist's or a psychiatrist's office before.

#### Reach

Primary care provider: ...it's long overdue. Primary care providers are not equipped and don't have enough time to provide that kind of care, and often we end up doing it because there's not enough access in the community.

Patient: I think the first time when she mentioned it, it wasn't at the office. I think I had to go somewhere else. That might have been why I didn't really take to it. So when she said that they had something to offer right there, it was more convenient. And I guess I was ready for it.

Leader: I've seen that in the short few months, people have really been meeting their goals.

Mental health provider: But the behavioral activation, the cognitive behavioral therapy, the sleep hygiene are probably the most interventions that I use, as well as alcohol care management. I've been doing more of that as well, and that's been really successful.

### **Effectiveness**

Mental health provider: I find that working in a team is way more effective for this type of work, because everybody has expertise in different areas of health care. Primary care provider: I can think of one [patient] who was really struggling with anxiety and we were able to get him hooked up with some cognitive behavioral therapy. And he had really incredible improvement in a lot of his secondary physical symptoms.

Patient: I think it's been a really great experience overall, being able to talk with someone who wants to improve my current behaviors and the current ways that I react and decide to respond day-to-day as a result of my anxiety.

Leader: But if it's a resource, not necessarily a referral because that sounds sort of like too separate from care, but if it's a resource that's connected with my practice in a way that doesn't feel like a barrier for a patient to access that resource, then that would be good for me.

Primary care provider: Some people were like, oh. I don't know how I feel about this, like I don't want anyone touching their medications other than me, or I don't want a social worker to be the ones giving therapy – it should just be a psychiatrist, which, again, is not how things work nowadays. So depending on how you trained or how long you've been a physician, you could have had different approaches. Staffing

Leader: We haven't had a program manager. When you said what's been one of the greatest challenges - it's not having someone who's managing the program, so then it falls to many of the other people who are sort of leading the program to be in that minutiae, and then we don't have the time to do that. Mental health provider: But we were perpetually in a state of emergency as far as our workloads. There was no end to the new patients coming in.

#### Implementation

**Training** provided Leader: We spent a lot of time training them up front and really telling them these are the boundaries of your job. Mental health provider: We started out with great training on

brief treatment and just had to conceptualize the program to patients, which I think was great. It was three days long. I think it could be spaced out better.

## **Adoption**

Primary care provider: Well, we pretty much just had an inservice for the staff, letting them know what the program was, how to use it, and we pretty much just did it. There wasn't any kind of specialty training or policies as much as it was just this is

what's here and this is what we're doing.

Services Leader: Having the triage [Resource] center that's adept at

assessing patients and then resourcing patients has been a

huge benefit to the primary care providers.

Engagement

and

collaboration

Leader: So, I think it – the launching of it actually went pretty

smoothly and the way it's running is pretty smooth. Mental health provider: Like the doctors are awesomely supportive. They feel so happy that we're here... they understand our clinical role and are very supportive of it.

Patient: They [PCP and MHP] interact and work very well, I must say. They're on top of everything with the stuff either one of us discuss. Concerning my behavioral health, they're on top of that.

They do correspond very well.

Workflow and **EHR** 

Mental health provider: It does feel a bit like even the – like the Electronic Health Record, the documentation that we do. It's really been - the plane has been being built as we're flying, and that's gotten - that's made it a little complicated and difficult at times.

Primary care provider: So, so far for me, the individual [MHP] in our practice – we have had conversations face-to-face, but a lot of – purely from my schedule and her schedule - that we've done

a lot of communication electronically, which I think is

commonplace now.

Financing and the business case

Leader: A motto around here is no margin, no mission. So they're very reluctant to commit to things that are not self-

sustaining financially.

Leader: So, everything was just done very quickly, and again, not enough resources, so we're still working out kinks as we go, which is normal, again, for any startup.

Leader: The Resource Center needs to be buttressed, expanded, really well staffed, trained, all of that. And then, of course, embedding in the larger practices across the health system that this would be the direction that things ought to go, as far as I'm concerned.

#### **Maintenance**

Leader: ...the response has been, we want more of it. We've had requests to expand it or add more services.

Primary care provider: So we're seeing a large volume, and I think having one social worker in the clinic is not really sufficient – but a good step in the right direction.

# Supplemental Table 3. Patient symptom scores at initial screening for all patients screened and among patients referred to PIC and referred to community-based specialty care.

Measure	All patients screened		Referred to PIC		Referred to specialty care	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
PHQ-9	3526	10.8 (5.9)	978	9.1 (5.0)	2418	11.5 (6.0)*
GAD-7	3355	10.2 (5.5)	907	8.2 (4.8)	2330	11.1 (5.5)*
PCL-5	1242	34 1 (Ì8 Í)	194	22 1 (14 <del>5</del> )	1011	36 5 (17 Ź)*

<sup>\*</sup>Compared to patients referred to PIC, patients referred to community-based specialty mental health care reported significantly higher mean total scores on the PHQ-9, t (3394) = 10.8, p < .001; GAD-7, t (3235) = 13.7, p < .001; and PCL-5, t (1203) = 10.7, p < .001.

Note. PIC = Penn Integrated Care (collaborative care program); PHQ-9 = Patient Health Questionnaire-9; GAD-7= Generalized Anxiety Disorder 7-item scale; PCL-5 = PTSD Checklist for DSM-5.