**MHRN Steering Committee Meeting**

**November 28th, 2017**

Thank you to Susan Azrin, MHRN Project Scientist, our invaluable NIMH partner since the beginning of MHRN in 2010. Susan has been promoted to Chief of the Early Psychosis Prediction Unit, with an emphasis on external partnerships.

Agnes Rupp is the new MHRN Project Scientist. Has a focus in two areas where MHRN can do more – methods/health economics and training.

***DSIR Priorities***

*Bob Heinssen*:

RAISE initiative crystalized perspective on deployment focused research, designed with goal of broad implementation & changing standards of practice. Lead to ALACRITY centers. Focus on near-term opportunities, population or settings that rep opportunities to advance care, traction to be achieved, establish strategic partnerships with service users, clinicians, administrators & policy makers - commit to paying attn. to findings in decisions about organizing healthcare.

Have adopted this as a business model for future projects – identify linkage with policy makers and larger systems. Speaks to MHRN strengths – MHRN well situated with this business model.

New administration – goals of DHHS haven’t changed radically, focused in a way that’s advantageous to MHRN. Tom Price – two top goals were in areas of Suicide Prevention and improving outcomes for SMI. Active Secretary has endorsed those priorities and the dept is moving on these goals; various programs for what we are currently doing in these two areas, suic – risk prediction, referral to care, SMI – early identification, early intervention, and improving outcomes. Are inter-agency workgroups, committees, plans, setting targets in these areas. Good news for MHRN – areas where we are strong.

Not one approach to achieve the goal of a 20% decrease in suicide by 2020, mosaic of approaches, breadth and scope of MHRN populations served and sub-populations, ability to go across levels of care.

Past & current MHRN work is clearly in the middle of the lane with both NIMH and DSIR priorities in looking at near term opportunities to improve practice and have measurable outcomes

Consistent with goals within Suicide Prevention and SMI, fertile areas/concepts to consider as we think about next set of MHRN plans.

* Where does literature of our experience tell us where there is traction?
* How do we set up research to assure broad generalization of findings /engineer rapid adoption
* How can resources we bring illuminate plight of those with SMI in terms of symptoms, mortality and recovery

Agnes is point person, but have support of the division and projects touch other areas

*Michael Freed:*

See MHRN as a way to keep tabs on the pulse on the practice community (13 HCS with 13 milion beneficiaries) – in looking at future research:

* look for shortages
* Look at impact of learning from specialty care informing primary care – bidirectional learning
* See alignment in looking at EHR – ex. risk calculator - catalyst to inform practice change
* EHR is one way to influence what we think is in line with evidence & what HCS thinks is in line

Rinad’s ALACRITY Center – Division’s only ALACRITY Ctr. - incentivize behavior at both pt/provider and system level, combines implementation science and behavioral economics.

Division/branch very interested in how can we influence practice behavior.

* See identification of new targets – experimental therapeutics paradigm, constructs that go into intervention development
* Interested in the denominator

Are several new funding announcements that map to new strategic priorities

* Innovative MH health services
* Post-acute health services therapeutic interventions
* Family navigators
* ALACRITY
* Clearing concept for Practice-Based Network –
  + Focus of implementation science
  + Rapid response capabilities
  + Investment of stakeholders
  + Ability to address health disparities

*Discussion:*

Tension between specialized programs and primary care in the community. Other businesses have solved this problem (ex. Amazon – be everything to everyone all the time – good at delivery). Health care hasn’t figured it out yet. Ex. Simpson’s episode – design a car – everything you want but what’s the cost. What does practice-based community want and what’s practical and feasible.

We know about early intervention in FEP, not good at identifying signs; treatments offered aren’t that good. Number of folks who can offer specialty care are too few. How do we improve ability to identify folks in need of specialty care? How do you teach front-line clinicians to identify those in need?

Ex. of DBT – how can we deliver – everyone know a little (DBT-lite) or need specialized providers in specialty programs? Need to figure out in a generalizable way. One truck for Amazon.

ECHO model – deliver specialty care – for some complicated medical conditions, can have remote specialty to assist clinicians through video-conferencing. Tech innovations may broaden & expand expertise

Pathway to get pts to CSC – with acute needs, maybe primary care is not the best place

***NIMH Priorities***

*Josh Gordon / Shelli Avenevoli:*

Broad new priorities –

* Suicide Prevention,
* Computational Psychiatry, and
* Basic understanding mechanisms of disease

Suicide – NIMH signed on with Natl Action Alliance for Suicide Prevention and AFSP to reduce rate of suicide by 2025. MHRN is in good position, particularly around developing algorithms

Interested in testing these algorithms – do they result in positive outcomes

Computational Psychiary – interested in how to combine EHRs – feasible to merge across systems, workshop in February. How do we define our outcomes, are there more creative approaches like NLP – an area of development for MHRN, how do we measure in more modern ways? Challenge for us is – how far will data in EHR get us?

*Discussion:*

What is PHQ9 equivalent in psychosis?

What about risk calculator?

Challenges:

* Technical solutions are “easy” – mistrust is the issue, misaligned incentives. In MHRN, build around common data model, but departing from this due to more data in EHR than VDW
* AllOfUs – not a challenge to export data to shared model - > expected distrust of participants, 30% did not want their data shared
* Ethnical & privacy issues – need to also pay attention to down sides, negative aspects of big data
* IRB also challenging
* Need to convince HCS this is for better care, not research

Need to respect the individual disease -

* Depressed pts answer questions; bipolar/psychosis pts may try to hide information from family & providers
* What does consumer see as the reason for seeking care?
* Important to get into pts head when measuring sxs/outcomes
* Communication issue

***Project Updates***

For summaries, see project power point slides on [GitHub](https://github.com/MHResearchNetwork/MHRN_SC_Meeting_Fall_2017).

Project highlights:

* CV Wizard –
  + Over 400% of target enrollment
  + Rich dataset being built
  + Health systems begging for implementation
  + Important lessons:
    - Engage providers from the beginning
    - Wizard saves time for providers
    - Web-based – can adapt as things change, like changes to guidelines
* Zero Suicide – will leverage EPIC, for example, care plans are not in VDW
* FEP and TBI – will be doing more work on timing, timing is very important, for example higher risk right after diagnosis
* SUAY – learned a lot from pilot, main trial will be very different based on lessons from pilot; site visit to HFHS very important to talk with providers, etc. Fielding must be an interactive process.
* ASPIRE – is engagement with HCS content or process – both; 70% is relationship building, you must be flexible
* Biospecimens – long consent a huge barrier
* AllOfUs – beginning development of MH module. Is place to study etiology, etc., not the place to study personalized Tx – MHRN is the best place to study personalized treatment

***Perinatal MH***

Inventory of

* Mom-baby linkages
* Prenatal questionnaires
* Prenatal screening tools
* Developmental assessments
* Standard developmental questionnaires

Only some sites have relationships with clinical leadership in OB or women’s health.

***eHealth/mHealth***

Our unique contribution is engagement with health systems and ability to answer health services and implementation questions.

* How do we use tools to do what we already do
* Are there new tools to do what we don’t do now – cognitive bias tools, transformative potential

Given rapid changes in design and technical environment, we should be looking for the most partners rather than building our own. We have an important role in evaluation, but others can do it better; strategic partnership with a commercial group, need to constantly refresh; need a sustainable revenue stream

It’s difficult to disentangle questions regarding content (is this content engaging or effective) from questions about design and user experience (is this the right content in the wrong wrapper).

We are interested in some specific questions regarding assessment or intervention content:

* Cognitive bias assessment and modification in depression
* Attention training in anxiety disorders
* Automated rating of clinical interactions

Key principles

* Individualized – about the patient, example where patients could write own view of symptoms
* Integrate with medical care system – providers cannot go into a separate system
* Need to address politics & external issues – union, right partners, etc.

Workgroup on Technology – what can technology do that people can’t? Is there a path to implementation? Look at mediators of change.

Suggestions:

* Partner with developers – hold an innovation tournament
* Partner with computer scientists – ex. UCSD Design Clinic – looking at audio/visual/facial expressions

Next steps: Create new SIG (Ming Tai-Seale/Greg Clarke)

***MHRN Infrastructure***

**Meeting structure**

Presentations are only necessary for newer projects; others can be reviewed in teleconferences or written summaries.

Spring meeting can include other HCSRN meeting attendees, and we should modify our agenda to take advantage of possible attendance by:

* Health system leaders
* Programmer/analysts
* Investigators focused on other clinical areas

**Data Infrastructure Priorities**

Infrastructure to improve efficiency and privacy protection in mining of clinical text.

Standard process for validation of computable phenotypes – emphasizing extraction and efficient processing of clinical text rather than manual record review.

Expanded range of PROs (in collaboration with CESR).

All other studies rely on infrastructure; lot of leveraging goes on with infrastructure, & efficiency

*Suggestions:*

* More investigator time to support other investigators
* More harmonizing of drugs across sites
* Expand pragmatic trial development – dedicated EPIC programmer time
* Underdeveloped area – NLP application
* Provide resources for clinicians to validate diagnoses (way to engage clinicians)
* One area for improved efficiency – regulatory area, safety monitoring – substantial budget/resources devoted to this area beyond our control.

**Meeting schedule**

General informatics meeting can shift to once per month – with other meeting limited to specific projects.

*Action* – ask programmers/analysts

**Biostatistics core**

There are advantages to a centralized model (small number of investigators with significant commitment to MHRN) and distributed model (greater access to consultation at each site).

The best biostatisticians will be drawn to work with the best biostatistical colleagues – and not drawn to working in isolation as a solo expert.

Our data resources both enable and require use of different methods than many biostatisticians (especially more senior biostatisticians) are accustomed to.

Ideal to have biostat support for specific papers, and expertise to think analytically what we can do with large datasets, develop new methods

**Training**

Likely that one or more of our member sites will receive LHS K12 awards. We’ll want to step forward when/if this happens.

Some interest in proposing a T-mechanism training capability – but this depends on one or more investigators with the time and energy to lead.

A focus on early career researchers (post-doctoral fellows, early career investigators) will likely yield the greatest return.

We could propose something like the CRN scholars program, but that will depend on specifics of a funding announcement for the next MHRN cycle. Typically keep training funds separate from other funds. Can write in training in ALACRITY grant.

**Engagement**

*Patient engagement*

* Suggestion to write it into infrastructure
* What we don’t do well – transitions in care
* Develop local infrastructure
* Facilitate relationships between patients/providers/HCS – they drive the bus, we train them to do it
* End goal – funding with their voice

*HCS engagement*

* Most of our work is through specific projects
* Have examples of true embeddedness – Zero Suicide
* Be at the table from the beginning
* How do we present data to HCS leaders
* Show them we have things to contribute, bring something to table they value
* A strength of MHRN, but more ad hoc – example at one site – MHRN was only source of how many suicides, information needed by HCS
* Need to know top priorities, customize package