Innovative Models of Collaborative Care for Indiana Residents with Severe Mental Illness in Long Term Care

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Unique Challenges of Elderly Psychiatric Patients:

- Scope of the Problem
- Indiana's History of *Transinstitutionalization*
- Prodrome and Clinical Course
  - Similarities and differences – Dementia and SMI
- Indiana's Transformation Playbook
- Integrative Approaches to Treatment - Telepsychiatry
- Team-Based Care Reimagined
- Examples

Fragmentation of the Service Delivery System for Older Persons

- Primary care
- Multiple medical subspecialties
- Specialty mental health
- Aging network services
- Home care
- Skilled Nursing Facilities
- Nursing Homes – long term care
- Assisted Living
- Family caregivers

"The advantages of a decisive shift away from mental hospitals and nursing homes to treatment in community-based settings today are in jeopardy of being undermined by fragmentation and insufficient availability of services."
(Admin. on Aging, 2000)

Geriatric Mental Health Care reimagined

- No secret that current models of care not supporting our patients or families in recovery or end of life care
- Field of psychiatry has lagged behind in understanding the value of team-based care, integrative medicine and video technology
- Our geriatric SMI patients are least able to advocate for their needs and silently suffer from ineffective treatment
- Families are exhausted by their experiences with the complexities of the HC system and are seeking more individualized care

Nursing Facilities need to be prepared

- *“As little as 5 years ago, we said that those with chronic mental illness died 25 years before those without. That isn’t true anymore. As a result, more of these patients are living into their 60s and beyond, and they are experiencing age-related diseases and disabilities that mental health facilities and community-based group homes are unable to manage.”*

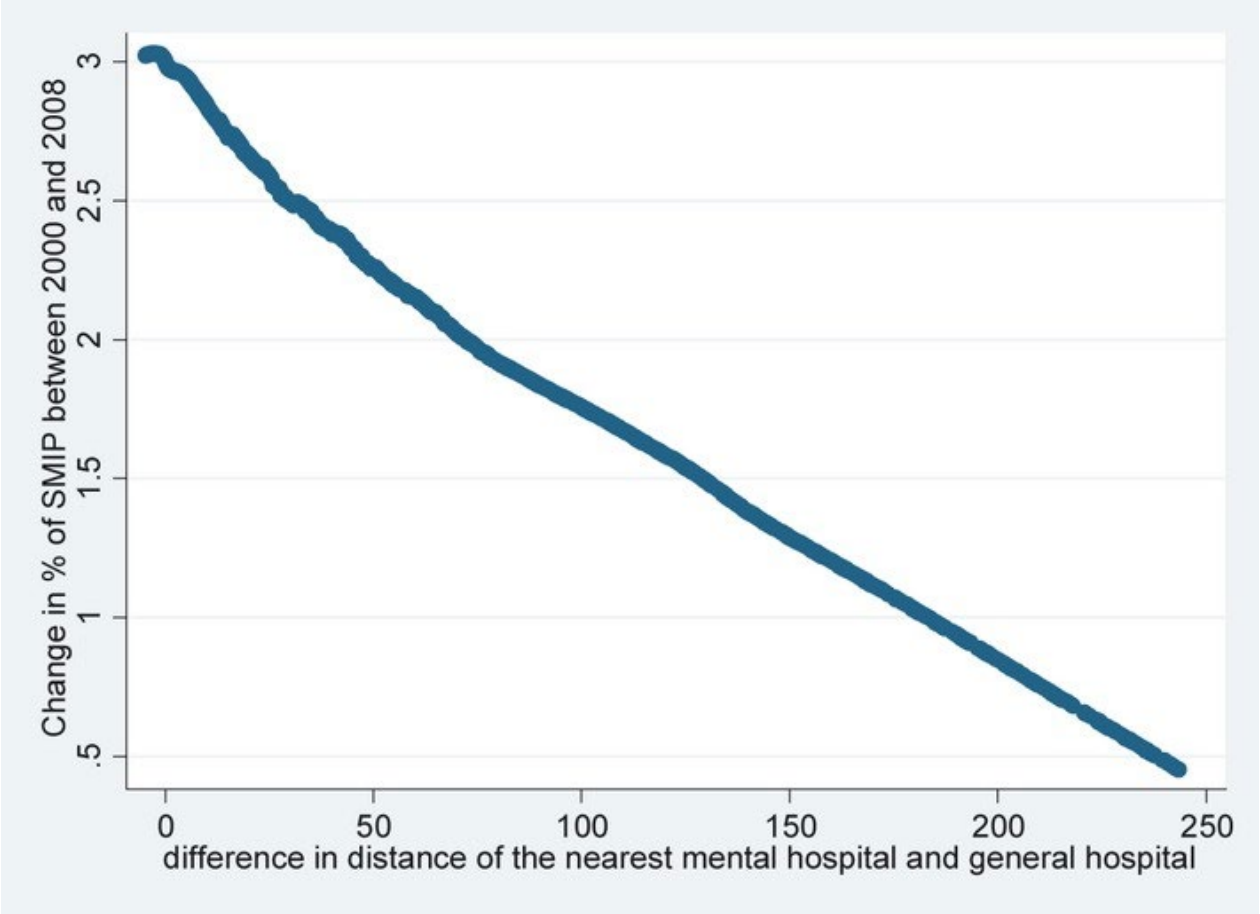
Maureen Nash, MD, MS, medical director of the Providence ElderPlace Oregon Program of All-Inclusive Care for the Elderly (PACE).

Scope of the problem

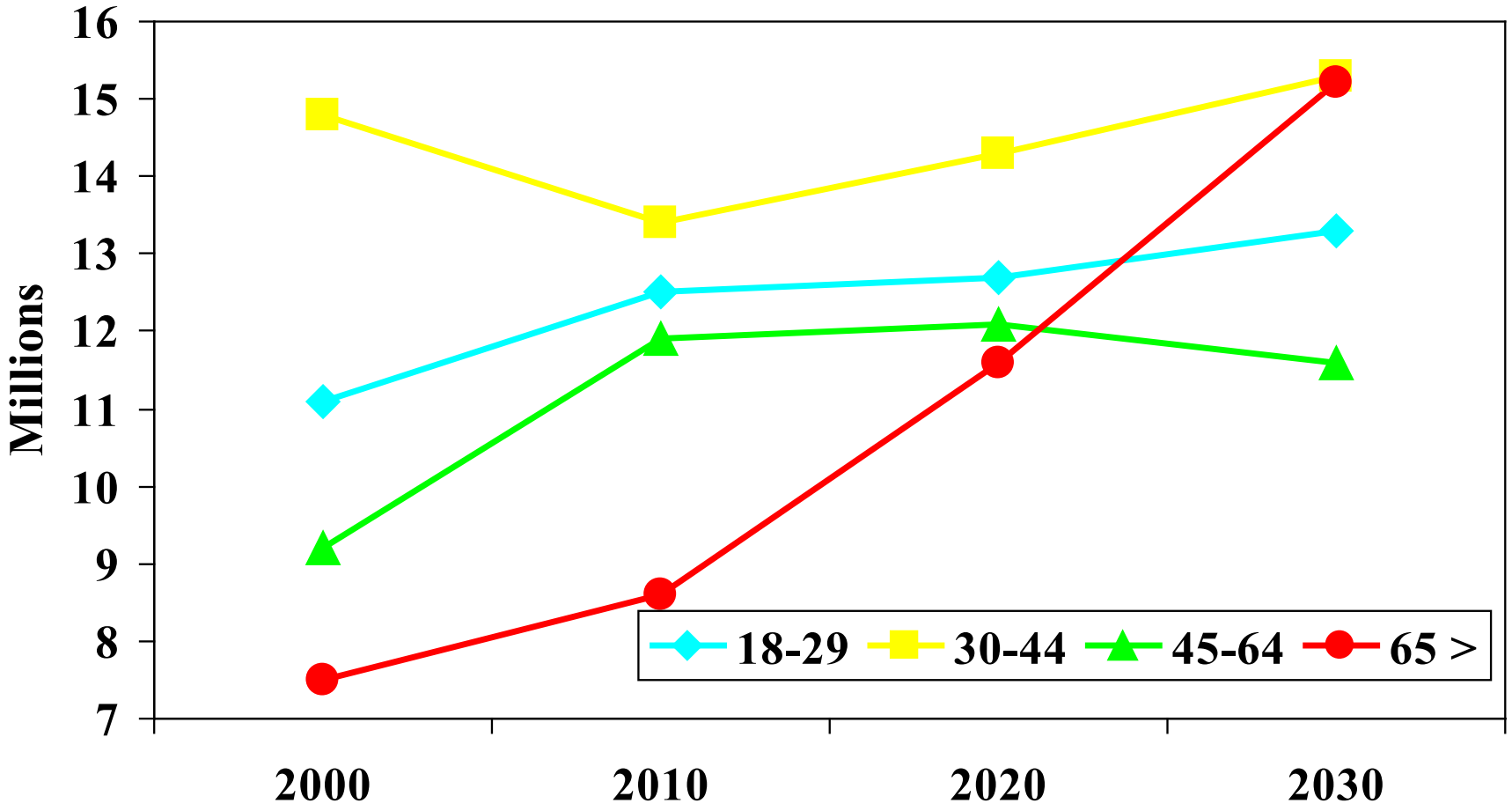
- Older Adults with mental illness will increase from 7 million (2016) to 15 million in 2030 Jeste et al, 1999:
- Under-investment in knowledge dissemination, service development and research to meet future care needs
- The growing number of persons with mental illness entering nursing homes continue to greatly strain existing systems of care
- The increased prevalence of SMI in a nursing home may affect facility quality through three pathways:
  - Reimbursement
  - Facility market power
  - Attract competent labor

Linear decline in Facility Quality Scores compared to distance from nearest mental health facility:

Serious Mental Illness and Nursing Home Quality of Care
Momotazur Rahman, David C Grabowski, Orna Intrator, Shubing Cai, and Vincent Mor
Health Serv Res. 2013 Aug; 48(4): 1279–1298.

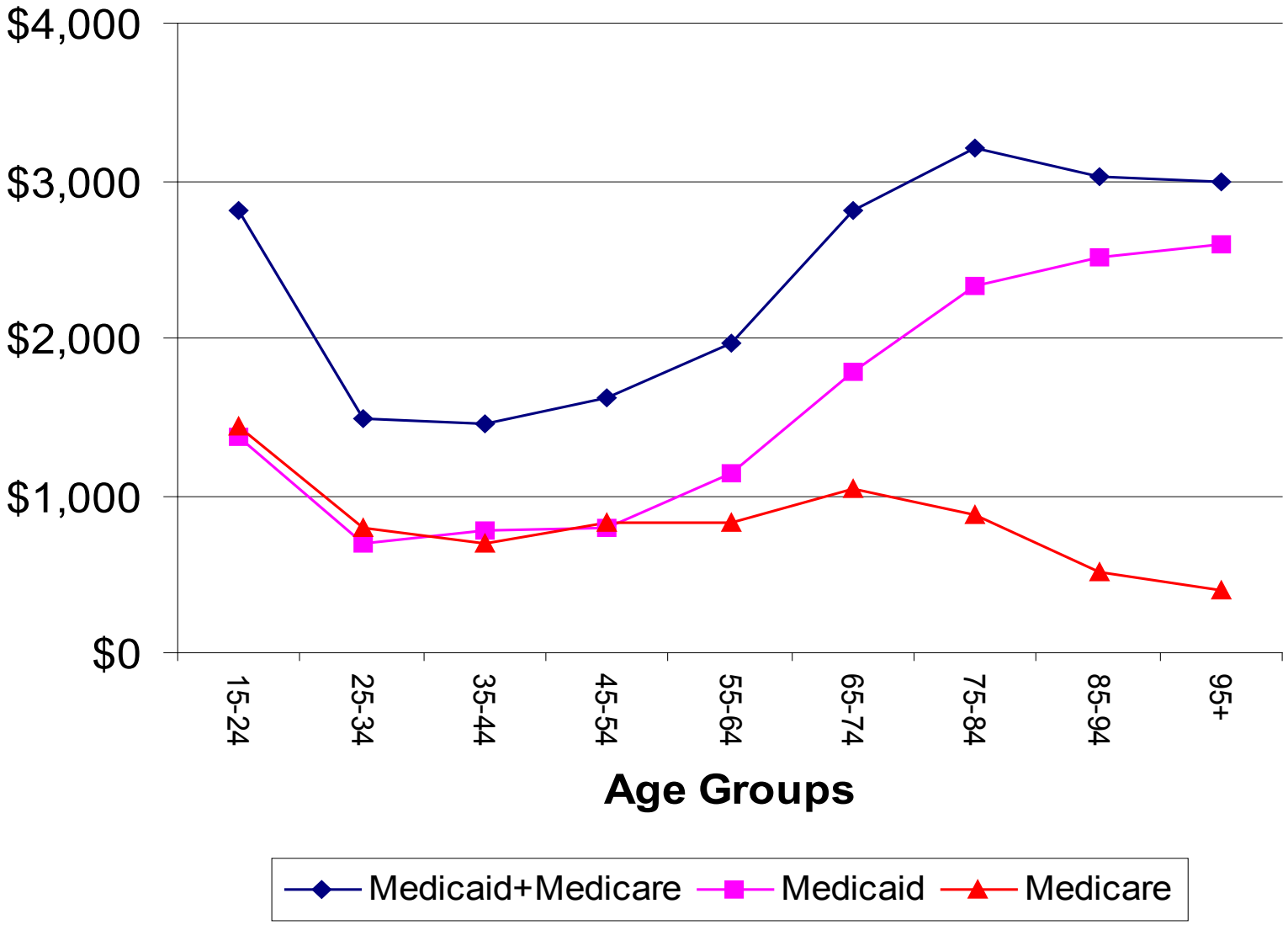


Estimated Prevalence of Major Psychiatric Disorders by Age Group

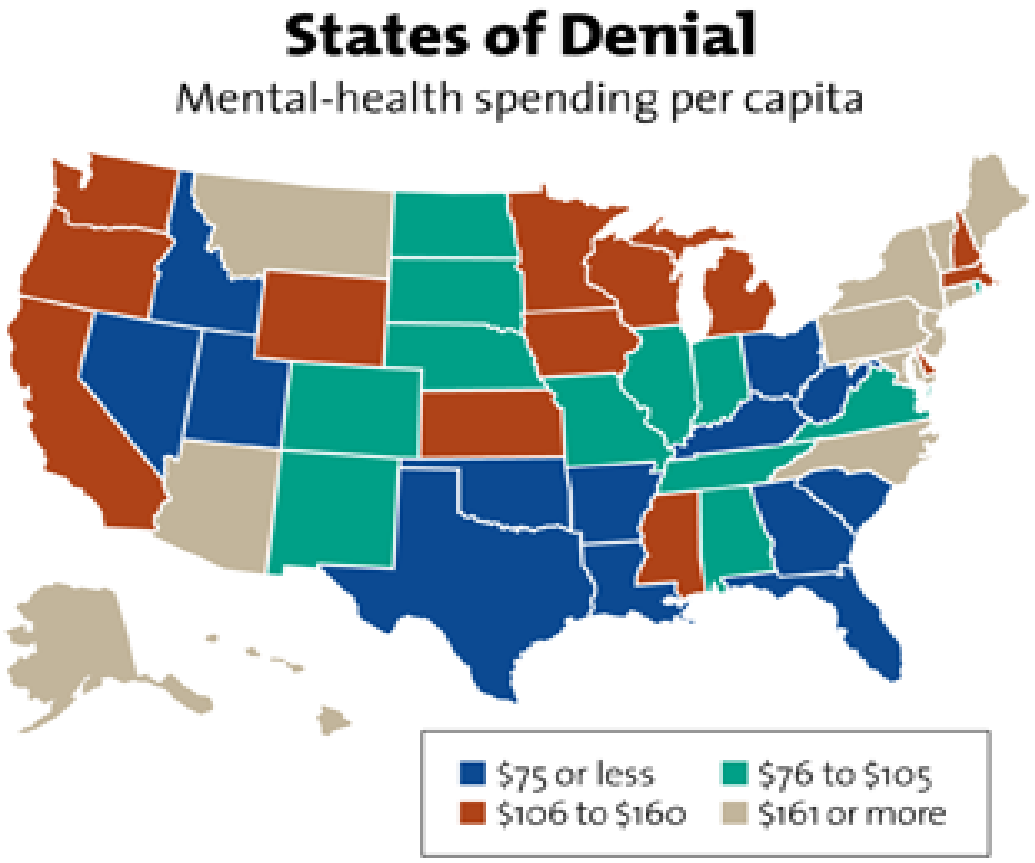


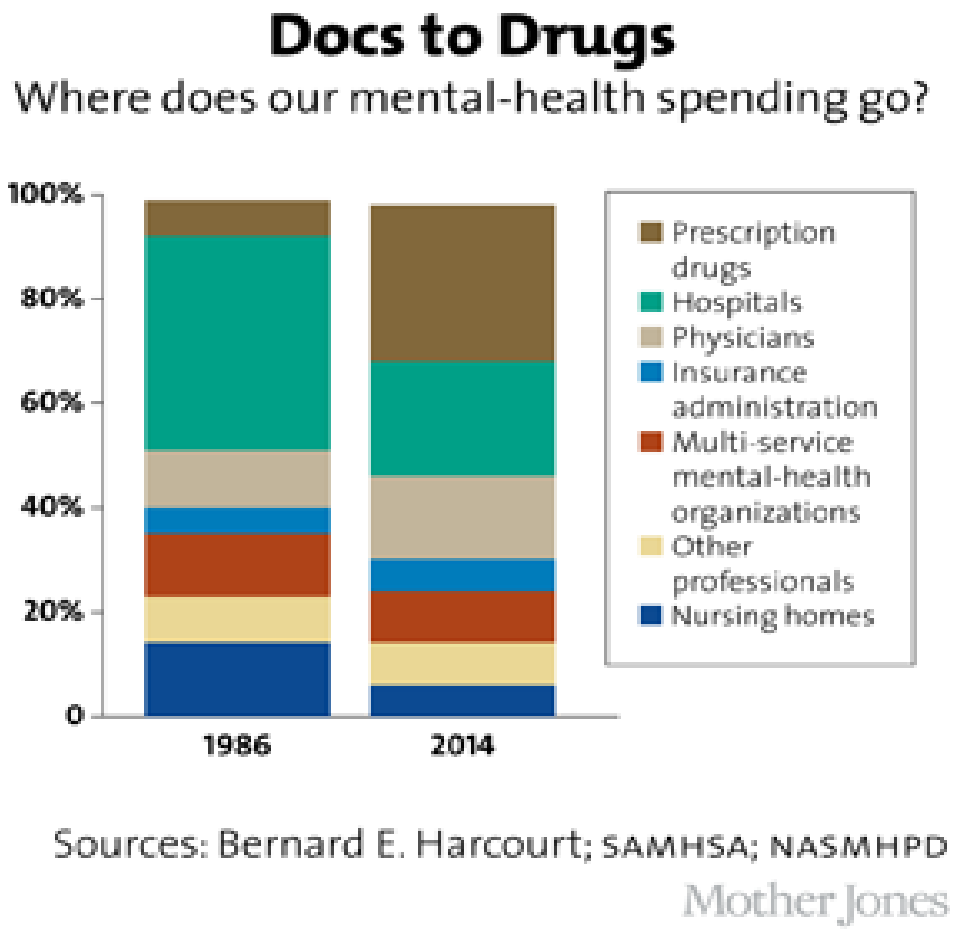
Jeste, Alexopoulus, Bartels, et al., 1999

Monthly Per Person Costs by Age: Severe Mental Illness



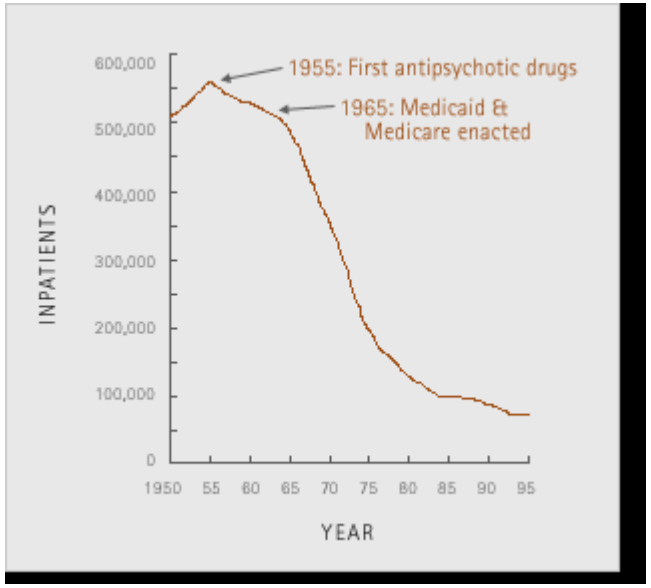
Where is the funding going?





De-institutionalization – did not deliver for those with SMI = “transinstitutionalization”

- According to the World Health Organization, mental disorders affect approximately 20% of the population over the age of sixty, a number that is expected to increase substantially as the population ages.
- census of the nation’s state hospitals reached its peak of 560,000 in 1955 and has declined dramatically since



- U.S. now has 37,679 state psychiatric beds, down another 13 percent since 2010
- TAC recommends additional 123,000 beds

Historical – Indiana State Mental Hospitals

- 1960 – 7000 beds in 13 SOF's (150 beds/100K)
- 2010 – 880 licensed beds in 6 SOF's (13 beds/100K)
  - $160M ($200,000/bed)
  - ALOS exceeded 2 years
- 22 CMHC's control the access
  - Gatekeeper (1970's)
  - Community-based providers have no direct access
- 2019 – Indiana Neurodiagnostic Institute heralded new model of care
- "Transinstitutionalization"
  - IDOC – 30,000 inmates (40% Axis I / 80% have SUD)
  - Municipal/County jails – detox/stabilize and release
  - ECF's increasingly the permanent placement solution, or
  - Homeless

Was Closing so many State Hospital beds a mistake?

- Chronic vs Acute psychosis :
  - Difficult to safely managed in community
  - Involuntary hospitalization only short term option
  - Prone to victimization in other settings
  - Anosognosia – Assisted Outpatient Treatment/Involuntary treatment
    - AOT Laws allow courts to order certain individuals with brain disorders to comply with treatment while living in the community. It also—very importantly– allows the courts to commit the mental health system to providing the treatment.

      https://mentalillnesspolicy.org/aot/assisted-outpatient-treatment-guide.html
  - Estimated 2500 Older Hoosiers with SMI who should be in AOT
- 2017 consensus report that 50 public beds per 100,000 is minimal needed
  - 50 x 6.6 m (66) = 3300 beds in Indiana

Managing the challenges of SMI in ECF's

- Staff often inexperienced dealing with SMI – needs are different
- These patients typically younger
- Different privacy expectations
- Often nicotine, alcohol or illicit drug dependency issues
- May get in altercations with other residents or staff
- Surveyors may consider a secure "separate" unit with a locked door unnecessary restriction
- SMI patients may refuse meds or treatment
- Some may be on injectable antipsychotics or Clozaril

Advantages of admitting SMI patients

- Have had a thorough evaluation and are “well diagnosed”
- Stable psychiatrically and medically
- Acclimated to institutional settings – know the routine
- Lower risk than some “unknown” patients admitted from community
- Legal status and wrap around services already established
- Family issues less cumbersome

Prodrome of Neurodegenerative Illness

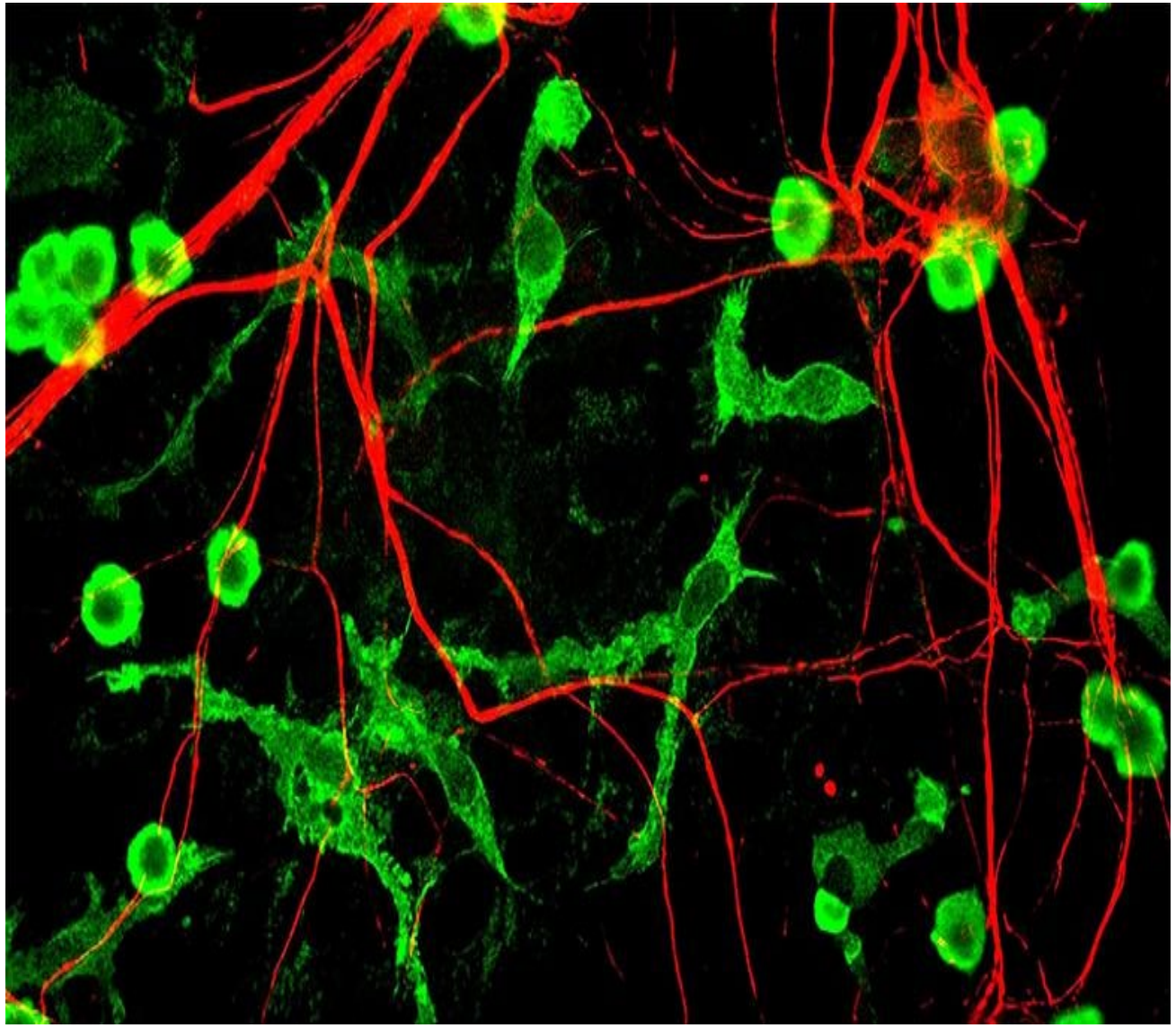
- Development of chronic inflammatory state
- Specific frontal/temporal lobes brain circuits associated with empathy and prosocial instincts are lost
- Wasting of PFC results in loss of healthy impulse control and emotional regulation
- Loose ability to self-reflect – lack of insight and poor social decision-making
- Sensory “haywiring” = hallucinations

Persistent MI variant of Alzheimer's?

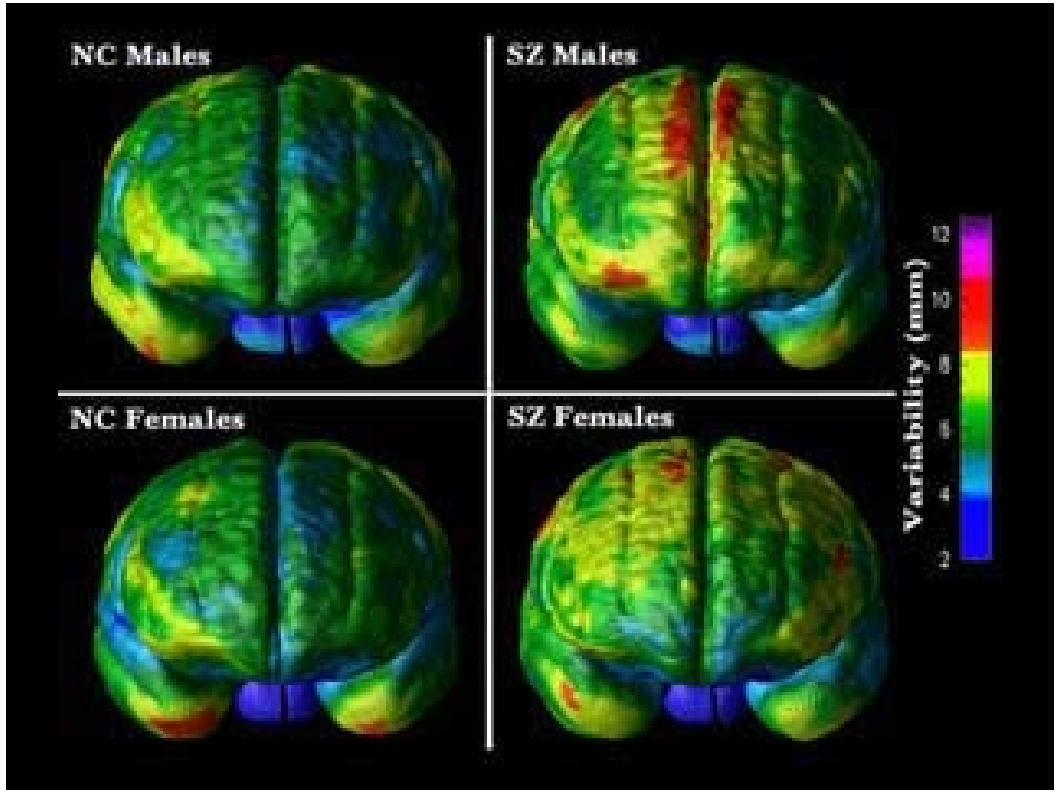
- Both result in neurodegeneration
  - Autoimmune response leads to elevation of inflammatory cytokines
- Schizophrenia = "dementia praecox"
  - stuck in the "dopamine box" – too simple?
- Unipolar/Bipolar = # episodes accelerates development of AD
  - SSRI's + Lithium + Valproate - neuroprotective
- Alzheimers/Dementia = cholinergic hypothesis (slow decline)
- "Neuronal Death Cascade" – rates of decline differ
  - "genetics load the gun, the environment pulls the trigger"

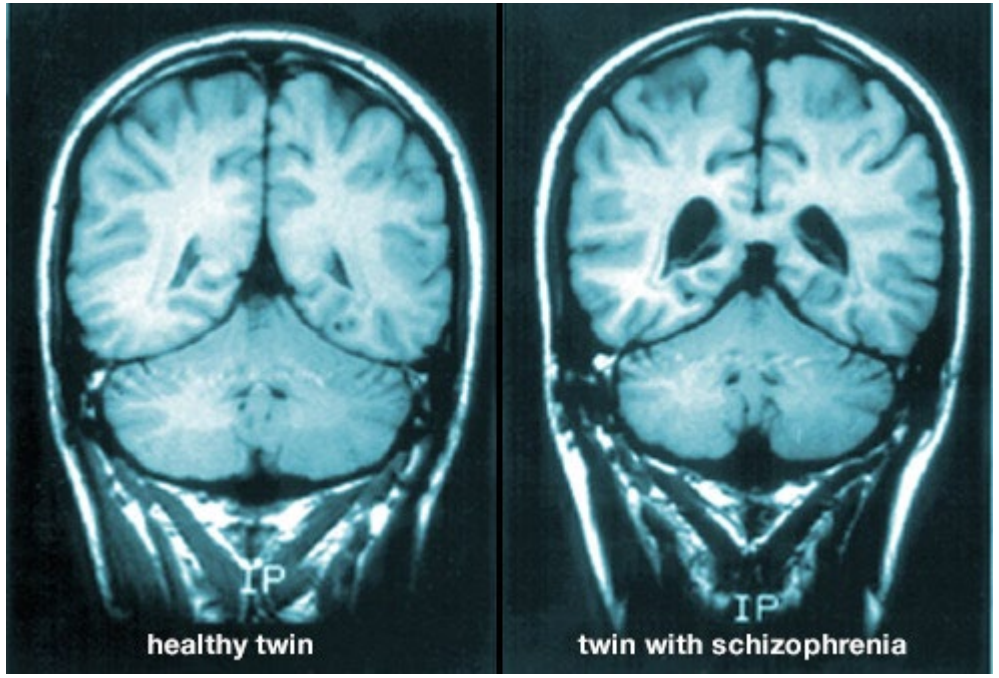
Younger patients with SMI present much like our mid-stage Dementia patients

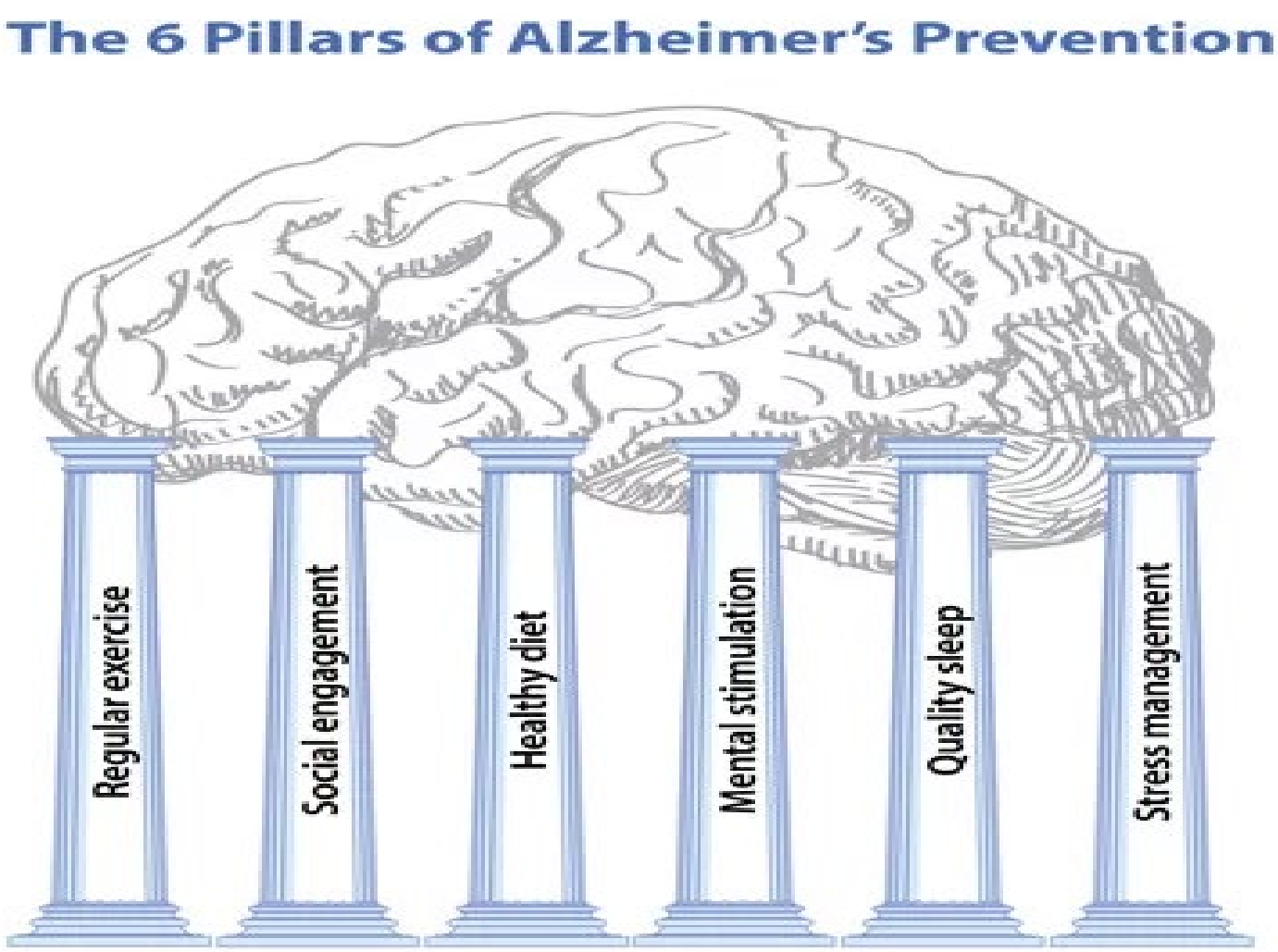
- impaired episodic memory
- changes in language
- inability to recognize familiar things or perform familiar tasks
- apathy or other changes in behavior
- Impaired cognitive functioning
- impaired performance in tests of attention, executive function, and memory
- Poor impulse control
- Intermittent agitation when re-directed



Cortical wasting very similar to SDAT







All Apply to Late Life Psychiatric Disorders

If SMI indeed causes early dementia…

- Address the negative stigma associated with caring for these patients
- Treat like SDAT – your expertise
- Staff attitude and experience very important
  - Consider RN's/LCSW's that have psych unit experience
- Staff/Administration education
  - Fearfulness, prejudices, misconceptions
- Vetting staff - finding those with passion – family history
- GDR's - Treat the patient in front of you
- Non-pharmacologic management of wandering, insomnia, behaviors

Indiana Experience

- 2014 plan to transform public mental health services to better meet the needs of our citizens impacted by:
  - Poor access to services
  - Lack of expert diagnostics
  - Poor coordination of care
  - Poor integrated medical services
- Address antiquated models of care and aging infrastructures
- Ease the bureaucracy and complexities of navigating the state system

FSSA Mental Health Transformation “Playbook 2014 - 2015”

- Recognize the states role and responsibility in funding care and MH services
  - HIP 2.0 (450,00 enrolled) – MC rates + legacy increases
  - Embrace MH/SUD Parity – expand services
- **Reorganize our SOF’s as a system**
  - **“One Hospital System with 6 campuses”**
  - **Systems Integration Council – September 2014**
- **Modernize our public assets for the future of healthcare**
  - **NDI as hub – focus on Neurodiagnostics**
  - **Leveraging technology – Video Presence + Telepsychiatry**
  - **New model of care – rapid through-put, shorter LOS**
- Re-establish public continuum of mental health care
  - Hospital Systems + Private practices
  - Free-standing Psychiatric facilities
  - CMHC’s
  - SOF’s
- Promote Integration of primary medical and psychiatric care
- Submit Federal waivers (1115)
  - increase Medicaid covered services
  - lift IMD Exclusion
- Address Mental Health manpower needs

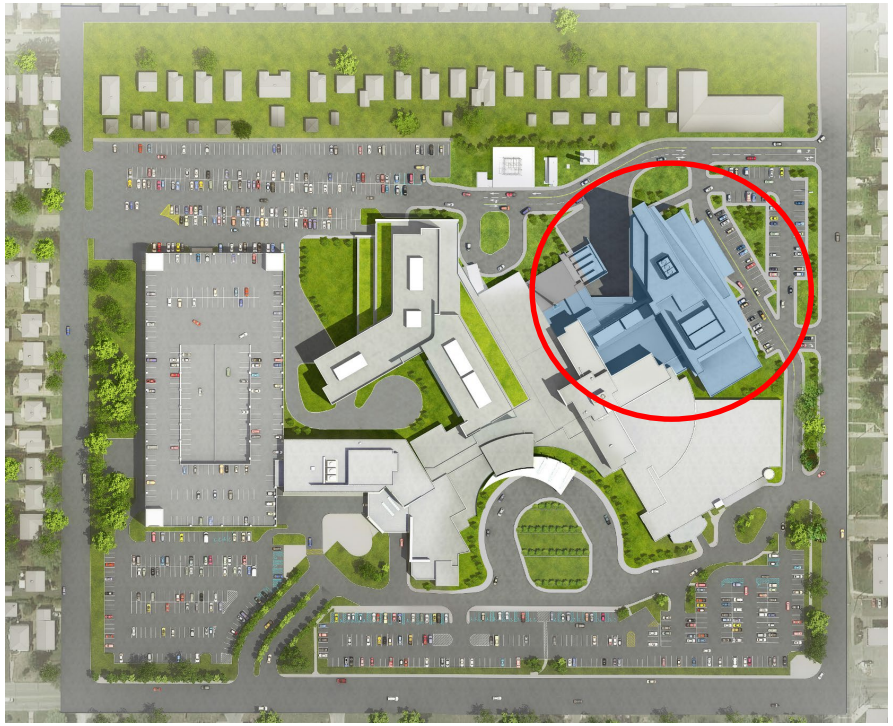
“New Model” of Care at NDI (2015)

- Focus on getting the Diagnosis Right
  - September *Institute of Medicine* Report (10% deaths)
  - Neurodiagnostics and Genetic Testing + structured tools/interviews
- Full Medical Integration
  - No longer remote - tertiary and specialty medical care
  - Attached to large ED
- State-wide Center of Excellence
  - Tele-management
  - Virtual model of consultative care in home community
- No longer require “Gatekeeping”
  - Eliminate need for commitments
  - Referrals from Health Systems
  - Develop Assisted Outpatient Treatment laws
- Rapid Through-put
  - ALOS 30 – 45 days
  - Build network of step-downs
    - Dedicated SNF units for medically ill
    - ECF for cognitive challenged
    - Residential
    - Home community-based programming

Jerry Sheward, MD
Chief Medical Officer
Indiana Neurodiagnostic Institute

Innovative location –
Shared Primary Care Hospital Campus

- **Community East Campus, Indianapolis**
- **Immediate access for primary, chronic, and emergent patient mental health care**
- **Collaborative Support and Professional Services with CHN**
- **Shared behavioral health research and knowledge base with Indiana's leading private sector behavioral health providers**
- **New opportunities to build the next generation training and residency programs**



Community Health Network

"Partners"

INDIANA FAMILY & SOCIAL SERVICES ADMINISTRATION
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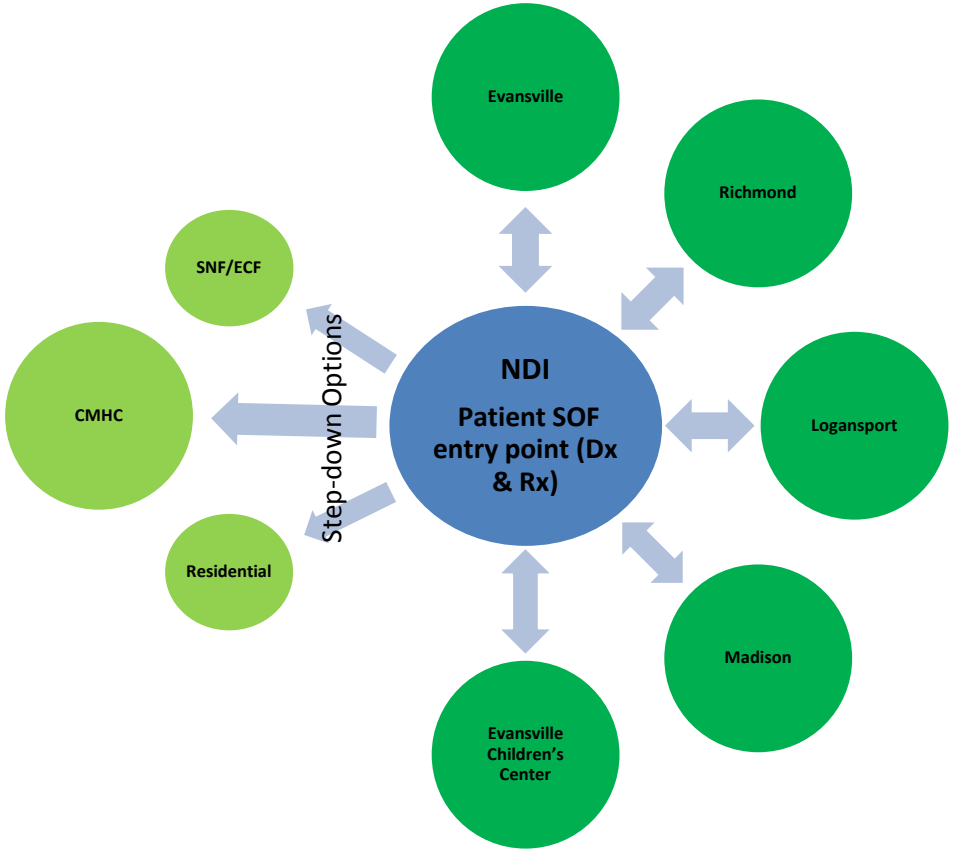
Innovative NDI Patient Population

Ensuring that the goals of the NDI are met, a broad diversity of acute and chronic patients will be our target population. Projected units include:

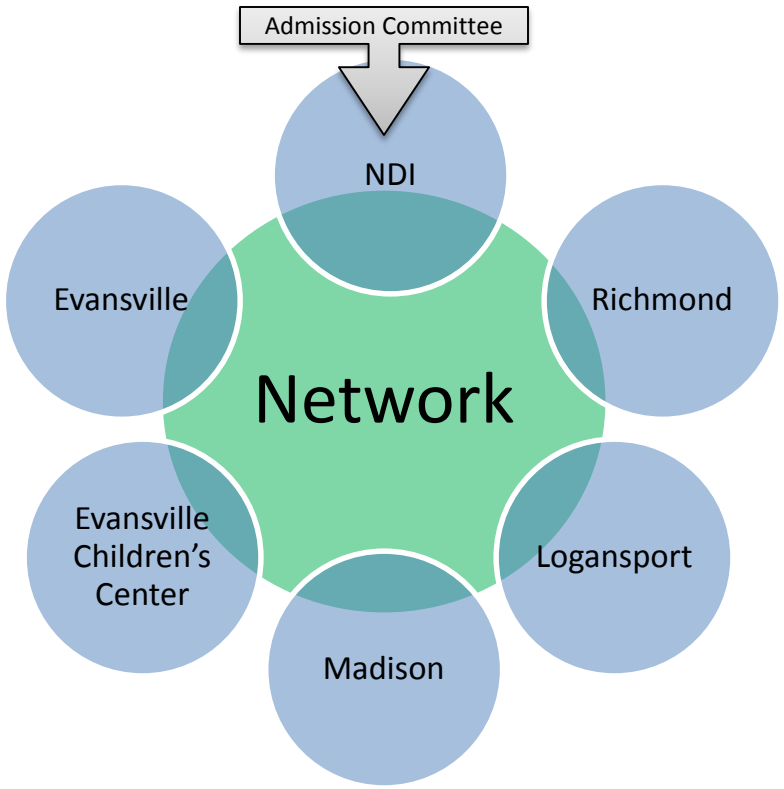
- **Adult Population** – Psychotic, Mood & Anxiety, Substance Abuse, Personality Disorders
- **Special Population** – Med Psych, Geriatric, Cognitive Disorders
- **Forensic Population** – Civil and Department of Corrections Behavioral/Psych Disorders
- **Adolescent Population** – 13 – 18 Years Old Behavioral/Psych Disorders (will be gender separated unit(s))
- **Child Population** – 8-12 Years Old Behavioral/Psych Disorders incl. ASD

Innovate SOF Operations - The new "Distributive Model"



- **Patient referred to SOF specialty care**
- **"New" system intakes at NDI**
- **Initial diagnostics and treatment plan development**
- **Depending on treatment duration, patient may transfer to alternate SOF for longer stay (or CMHC)**
- **Established Tx plan supported thru NDI Telemedicine**
- **NDI designed to build out continuum of care**

Modernizing SOF Network - *Integration!*



"One hospital with six campuses"

- **System Integration Council**
  - Operations
  - Technology (EMR, Pharmacy, Systems, Best Practices, Research)
- **Uniform and centralized facility controls and policy**
  - Scalable, Cost Benefits
  - Drive administration efficiencies
- **Uniform continuum of patient care**
  - Admission to "System"
  - Routine vs. Center of Excellence
- **Maintain elements of facility autonomy as merited**

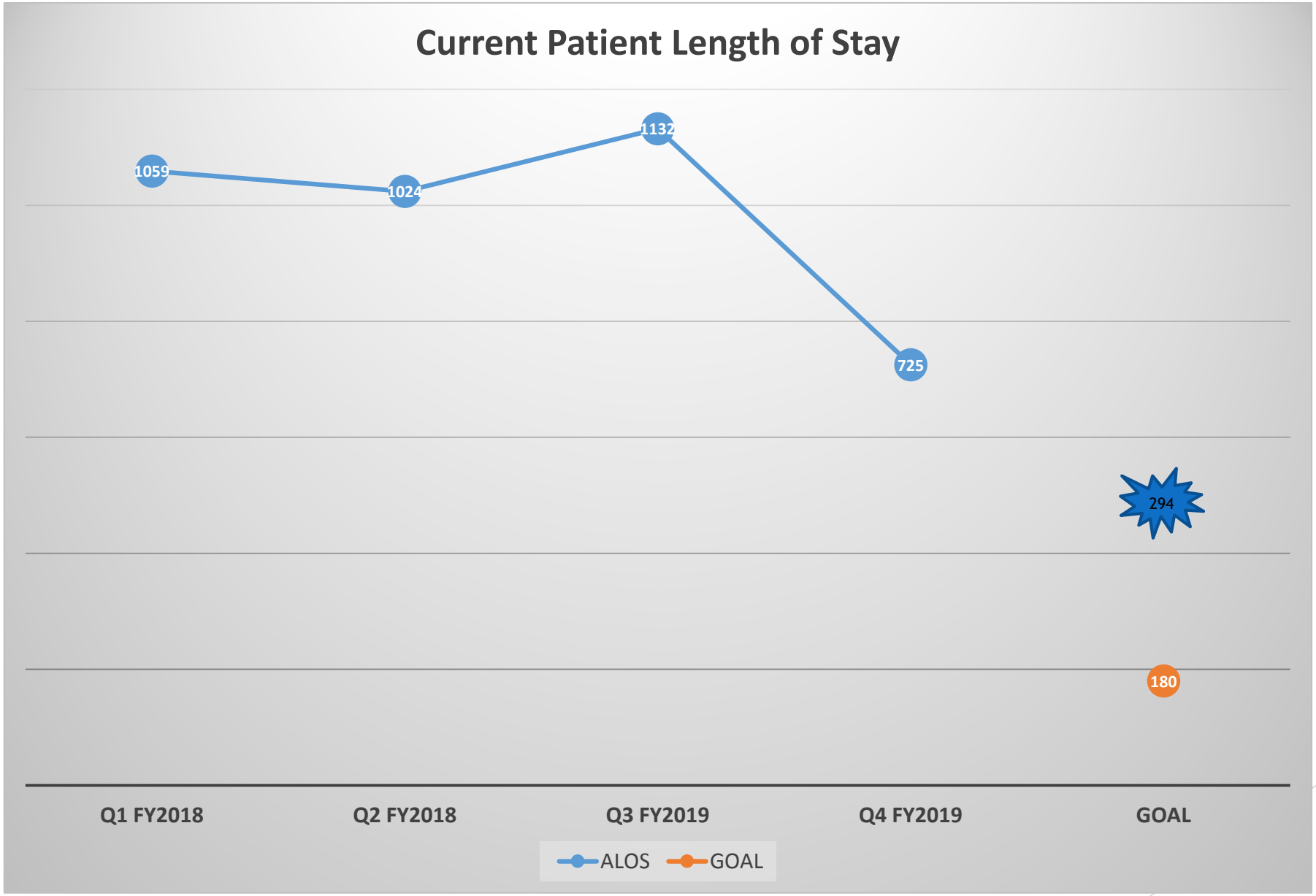
Reality to Date at NDI

*'Rome ne fu pas faite toute en un jour' **

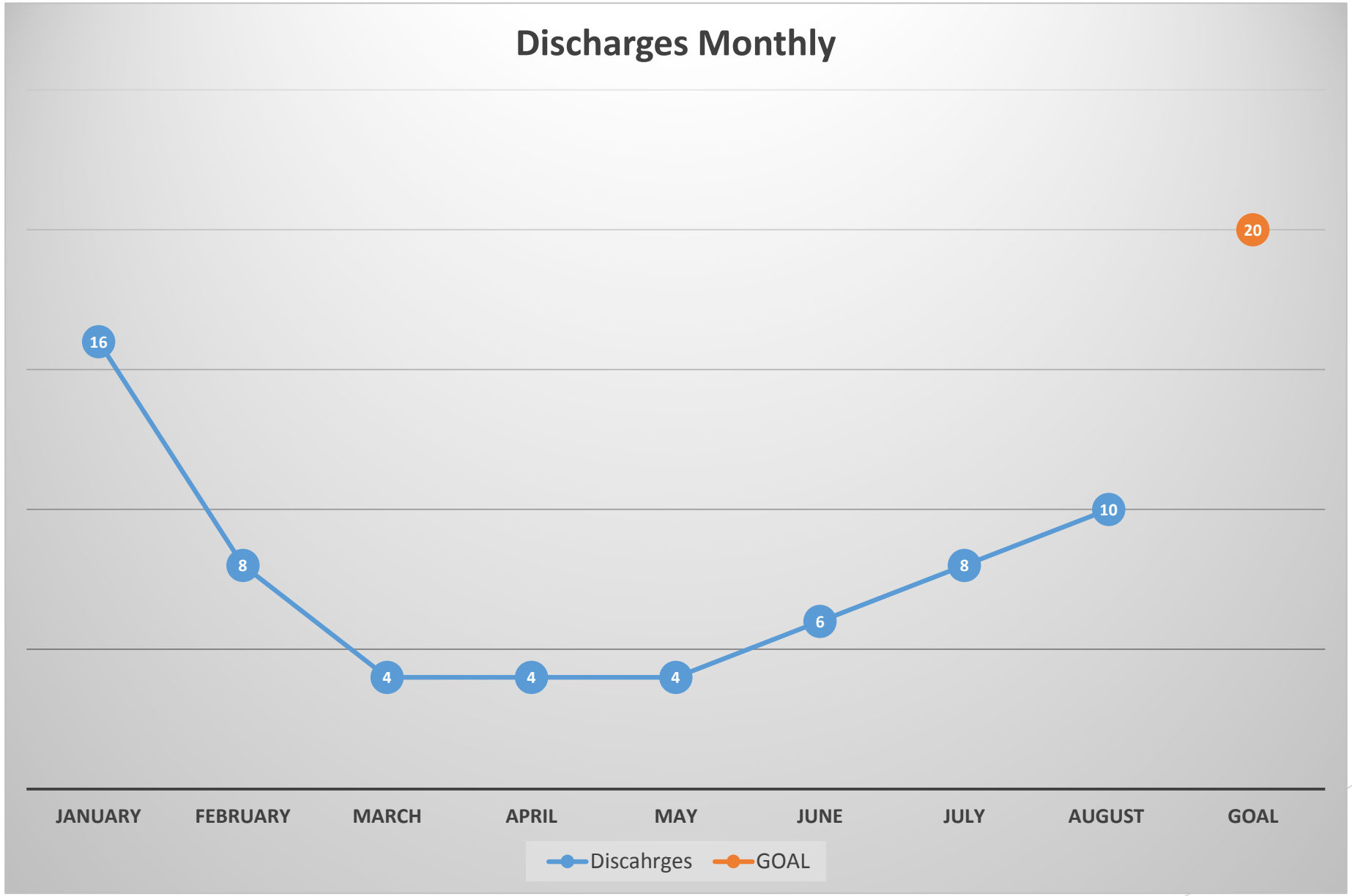
*Rome wasn't built in a day

NDI First Year Success Criteria

- Average Length of Stay (ALOS) of less than 180 days
- Intra-system transfer rate of less than 30%
- 250 admission year one.
- Training programs in place
  - Psych Residents
  - DO and MD students
  - Psychology Interns
  - NP/APN
  - Nursing
  - Social Work



* Current Patient Length of Stay as of September 10, 2019: 294


Discharges Monthly
20
16
8
4
4
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8
10
JANUARY
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MARCH
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JULY
AUGUST
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Discahrges
GOAL

Current Strategies

- Increased pace and intensity of treatment
  - Patient's assessment and master treatment plan in place in one week, not 2-4
  - No planned washout period to see the patient's untreated symptoms, build of what's already been accomplished
  - Groups and activity programming on a 12 week cycle, not 12 months
  - Patients seen by psychiatrist twice weekly throughout their stay, not once a month
- Better integrated general medical care. Full time internist providing prompt assessment and treatment of medical conditions with CHE resources
- Better collaboration with Gatekeepers
  - Viewpoint referral and communication portal
  - More frequent liaison attendance at treatment planning and progress meetings
  - More focus upon forensic ICST patients

What is Still to be Done

- Consolidated Medical Staff Bylaws adopted across the network
- Changes to minimum Gatekeeper involvement
- Activation of the Advanced Treatment Center and three Tele-psychiatry suites
- Addressing staffing issues at all State Psychiatric Hospitals
- Activation of the remaining units and NDI to reach full capacity
- Reconsideration of the Gatekeeper system
- Addressing the 15% per year increase in Forensic referrals (swamping the system)


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Managing the risks of admitting patients from Psychiatric Hospitals:

- Can our staff manage the unique needs of these patients?
- What if Psychiatric Expertise is difficult to find
- Will facility quality scores suffer?
- How will the presence of seniors with SMI histories impact census?
- Are there special considerations for those with Schizophrenia and Bipolar conditions?

Special Considerations - older adults with Schizophrenia

- Positive sx tend to become less severe
- SUD becomes less common
- Hospitalizations more likely due to physical problems rather than psychosis
- At risk for more side effects to antipsychotics (particularly movement disorders and metabolic issues)
- Antipsychotic doses should be lower – minority can discontinue
- Psychosocial interventions do work (especially cognitive behavioral skills training)

Special Considerations – older adults with Bipolar /Affective Disorder

- Prevalence rates in the Elderly US range from 0.1% to 0.4%.
  - Accounts for 10% to 25% of all geriatric patients with mood disorders
  - 5% of patients admitted to geropsychiatric inpatient units.
- Manic episodes less frequent
- Somatic treatments complicated by substantial medical comorbidity and age-related variations in response to therapy
- Lithium, divalproex sodium, carbamazepine, lamotrigine, atypical antipsychotics, and antidepressants have all been found to be beneficial
- Mood stabilizers - Med dosages can be reduced
- Atypical antipsychotics – metabolic issues less worrisome
- Antidepressants much less likely to precipitate mania
- ECT and psychotherapy may be useful in the treatment of refractory disease

Can virtual therapies and telepsychiatry really provide the needed services to effectively manage elderly mental health patients?

- The only logical option for needed expertise
- Value-based reimbursement will drive development of programs
- Manpower limited
- Geriatric + Psychiatric Experience
- Need a committed Health System invested in providing continuity of care

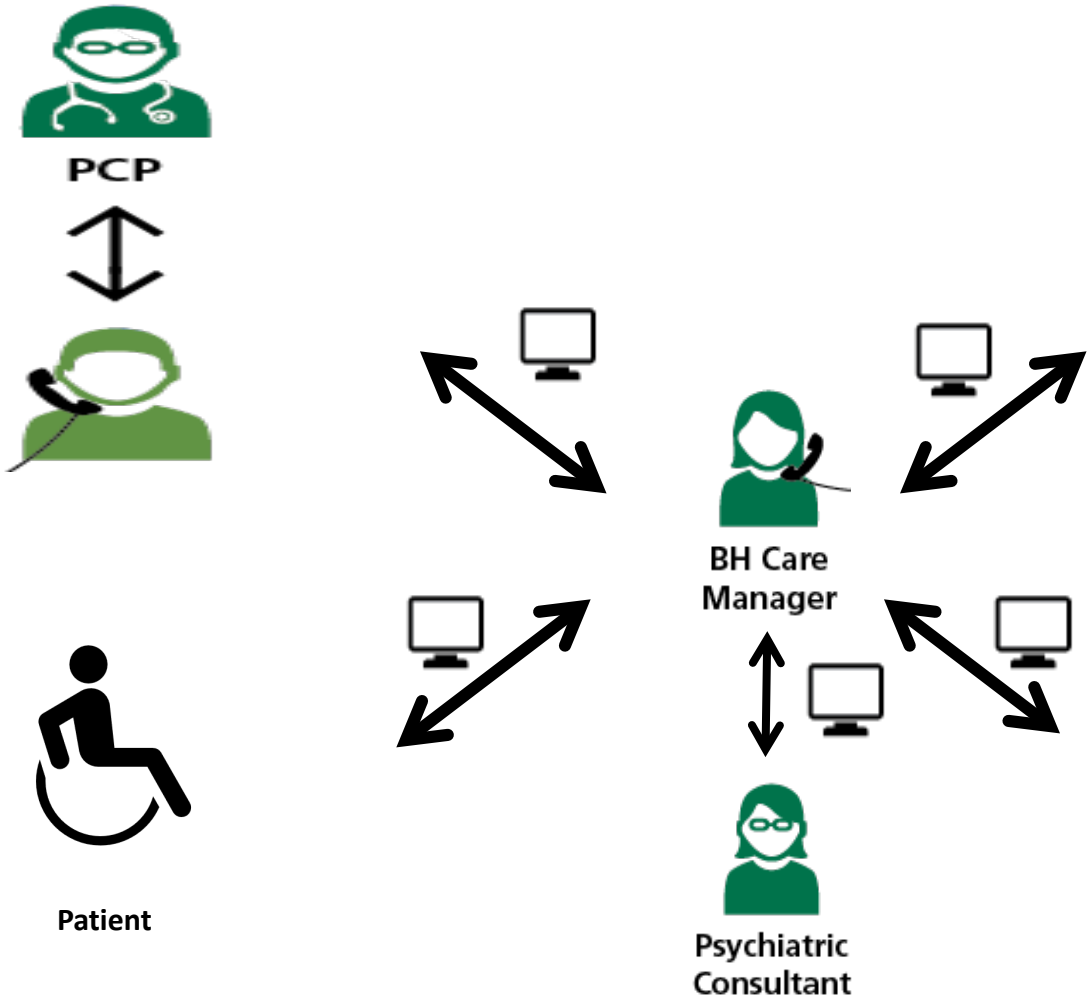
Advantages of Virtual Team-based Care

- Expands access to much-needed expertise, especially psychiatry
- Promote staff education and support (more effective tx)
- New approaches to patient management
  - Brain repair tactics
  - Decrease reliance on psychotropics for behaviors
- Maximize provider efficiency (no travel costs)
- Promotes medical/behavioral integration
- Decreases reliance on outside referrals (CMHC's)
- Documentation – GDR's and psychotropic management

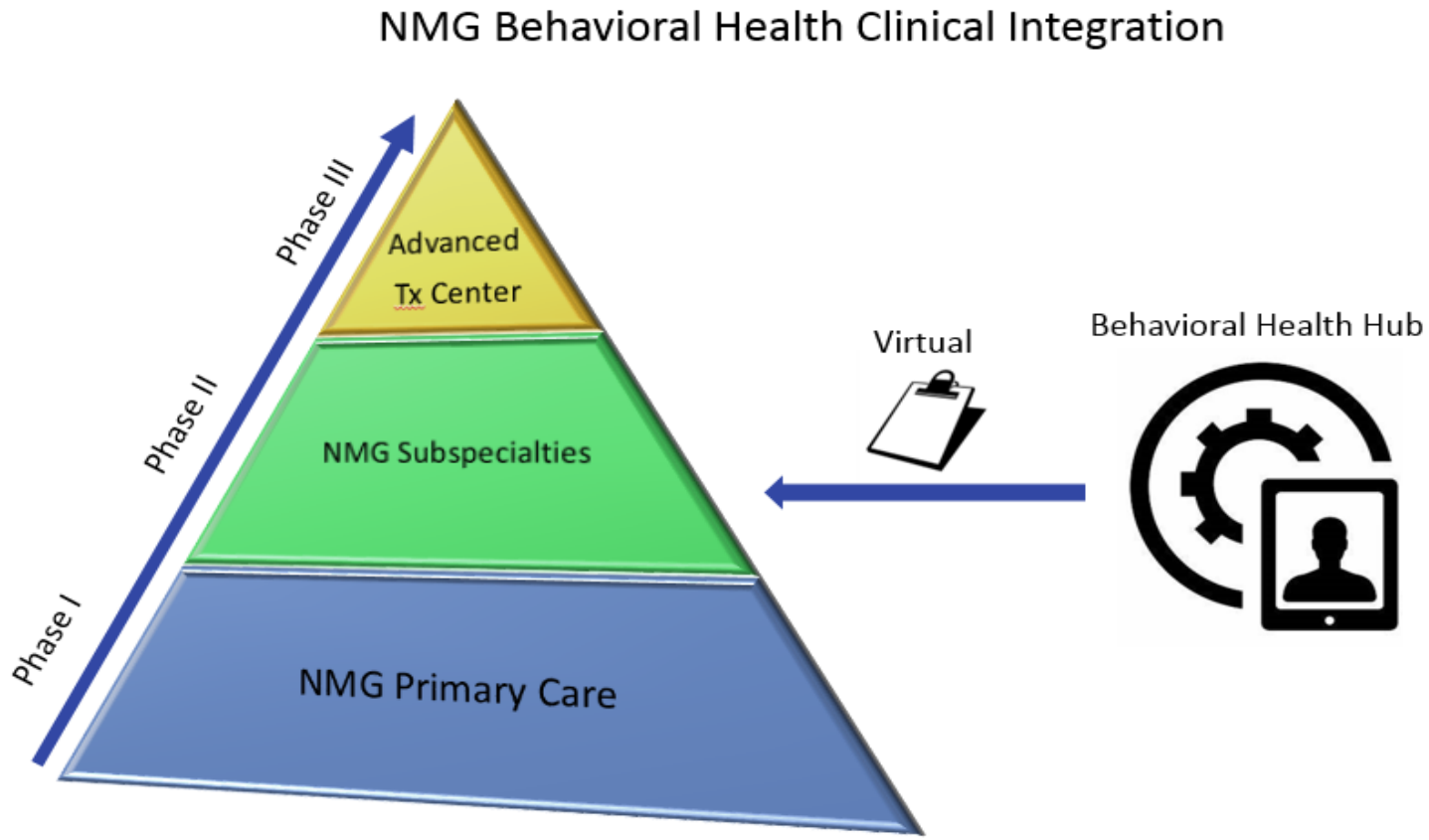
Remotely providing Psychiatric Expertise

- “Bio-psycho-social” approach – merging medical and non-medical
- Relevant and functional neurology expertise
- Helping to manage and educate “challenging” families / expectations
- Alternatives to “laddering” medications
- Behavior management
- Supervision of other psychiatric APP’s
- Gradual Dose Reductions vs documenting need for maintenance
- Managing EPSE / other medication side effects

CENTRALIZED CARE MANGER SUPPORTING MULTIPLE FACILITIES



Remote Care supported by BH HUB



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Outcomes of Telepsychiatry Usage Studies:

- **Feasibility rating:** outstanding.
- **Validity rating:** outstanding.
  - You can do everything as you do in person with only minor exceptions (e.g., smell alcohol on a patient, check for extrapyramidal side effects or tremor – need to train a nurse on the other end).
- **Reliability rating:** outstanding.
  - Diagnoses have been made reliably, with good inter-rater reliability, for a wide range of psychiatric disorders in all ages of patients. Satisfaction rating: outstanding. It is extremely high among patients, psychiatrists and other professionals. This extends to all clinical services, populations, and contexts.
- **Cost and cost-effectiveness rating:** similar to good.
  - Robust studies have not been completed, but descriptive studies clearly indicate savings in time, travel, and money to patients and providers
- **Clinical measures rating:** individually assessed below.
  - Interviewing, assessment, cognitive testing, and others: outstanding.
  - Disorders include depression, anxiety, psychosis, substance, cognitive/attentional/behavioral, personality/behavioral, and many others: outstanding.
  - Settings well studied include outpatient, primary care/medical: outstanding.
  - Settings less well studied include emergency rooms, jails, inpatient units and schools: somewhat acceptable – similar to in-person care.

Team Based Care

VIRTUAL Team Base Care – IT / EMR / Data / Telepsych

- **Remote Mental Health Integration team**
- BHC / Care Manager
- Psychiatric Consultant
- Therapists (Ph.D, LCSW)
- (Neurology)

Primary Care Team at Facility

MD / APN

Patient/Family

ECF staff

Consulting Pharmacist

Nursing Leadership

PT/OT/RT

Nutritionist

- **Community resources**
- Formal CBO's – home visits
- Hospice programs
- Level II – CMHC support
- Insurers
- Community Therapists
- Faith-based

EXAMPLE:
Different types of therapy to treat schizophrenia and bipolar include:

- Integrating a combination of medical and non-medical treatments for patients with SMI can significantly improve behaviors and safety
  - Cognitive behavioral therapy
  - Self-help groups
  - Family education and therapy support groups
  - Exercise and relaxation
  - Nutritional Planning

- These can all be provided REMOTELY

Re-establish the “Rhythm of Life”

- Counter-intuitive – many with SMI acclimated to institutional lifestyle
- Circadian rhythm
  - Coffee is a drug, not a beverage – use it like one (1 am/green tea pm)
- Peristalsis
  - Goal raw/cooked = 50/50
  - Bowel routines
- Stage specific Exercise
  - Aerobic 20 – 60 mins daily
  - Core, resistance training 3x/wk
  - Stretching/Tai Chi in afternoons
  - Quite time/meditation after evening meal
- Take off the sunglasses
  - Bright am light
  - Blue light blocking glasses at night

Dietary Changes

- Facility food is generally:
  - Low Nutrient
  - Processed
  - Pro-inflammatory

- Nutrient Dense
  - Goal raw/cooked = 50/50
  - Use the crock pots and blenders
  - Use fats (olive oil), eggs, oatmeal, nut milks

- Simple vitamin deficiencies worsening mental illness?
  - Pelegra – Vit B3 deficiency
  - West Syndrome (Sz D/O) – b6/Mag deficiency
  - Vit C 1000 mg qd (Schizo require even higher doses – 2000mg+)

Example: Complex Medication monitoring

- Certain pharmacotherapies require close medical monitoring
  - Clozaril
  - Lithium (especially in pt's - CHF and CVD meds)
  - Depakote
- Consulting pharmacist monitors labs and dosing
- MH Team provides oversight and prescription support
- Case manager insures all necessary documentation
- Primary Care team relieved of these responsibilities

Barriers to Implementing TelePsychiatry in LTC

- "*Change Toxicity*" – too much all at once (EMR + Telemedicine)
- Paranoid patients – acceptance of video interaction
- Clinician "*technophobia*"
- User-friendly interface
- Cost of Secure, data-encrypted system
- Hardware – static vs mobile
- Poor Broadband
- Interface with EMR

Documentation – just like any other medical encounter

- Documentation of the time, date, site location
- Documentation of the duration of the encounter and time spent face-to-face with the patient in interview and examination
- Chief Complaint or Reason for Encounter
- Referral Source
- History of Present Illness
- Current Treatments including medications and ongoing therapies
- Mental Status Examination
- Diagnoses + Treatment Plan
- Bill Professional fees like any other encounter (appropriate modifiers)

Team Therapeutic Goals

- Overcome the philosophy of a “quick fix”
- De-stigmatize care
- Understand Somatization
  - “*The Body tells us what the mind can’t bear to put in to words*” Freud
- Establish Schedules and Rhythms of Self Regulation
- Food is Medicine (Mood follows Food)
  - Emotional distress = Digestive distress
- Complex Trauma – trauma informed approaches to care
- Therapy – learning self-care and regulating negative impulses

Summary - Pre-requisites for good outcomes:

- Supportive staff and collaborative clinicians
- Partner psychiatric clinic or institution – align financial incentives
- Program fitness in terms of organization, function, leadership, and the "right" members/workforce. Clinical, technical, and administrative teamwork makes this possible
- Technology which allows good engagement, clarity, and is reliable;
  - options for the clinician to have far end camera control
  - Good broadband/wireless
- Ensure the ability to treat individual patients within the standard of care
- Patience

"The capacity of an individual with mental or behavioral problems to respond to mental health interventions knows no end-point in the life cycle.

Even serious mental disorders in later life can respond to clinical interventions and rehabilitation strategies aimed at preventing excess disability in affected individuals."

C Everett Koop, Surgeon General's Workshop Health Promotion and Aging, 1988


PAST
FUTURE

Resources:

- Center for Connected Health Policy:
  - *http://www.cchpca.org/telehealth-policy*
- TeleHealth Institute:
  - *htpps://telehealth.org/ethical –statements/*
- APA Telepsychiatry Toolkit:
  - *www.psychiatry.org/psychiatrists/practice/telepsychiatry*
- APA resource Document on Telepsychiatry
  - *Resource-2014-Telepsychiatry-Clinical-Psychiatry.pdf*
- American Telemedicine Association Policy Resources:
  - *http://www.americantelemed.org/policy-page/state-policy-resource-center*