Using Risk Stratification to Identify and Address NMDOH Needs in Rural Communities

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2024 Texas NMDOH Consortium

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Disclaimer

About Burke

Burke is the **Local Mental Health Authority** (LMHA) and **Local Intellectual Developmental Disability Authority** (LIDDA) for 11 counties in eastern Texas.

We provide the following services to both adults, youth, and children:
- Outpatient Mental Health
- Outpatient Substance Use
- Crisis Behavioral Health
- Intellectual and Developmental Disabilities
- Early Childhood Intervention
- Primary Care

We serve on average **13,000 unduplicated individuals** per year.

We Are Also Highly Rural

Our largest challenge is our geographical constraints:
- 10,000 square miles
- 11 county jurisdiction
- 650,000 population

Exacerbated NMDOH:
- Little to no public transportation
- Fewer employment opportunities
- Lower education rates
- Large commuting distances to grocery stores
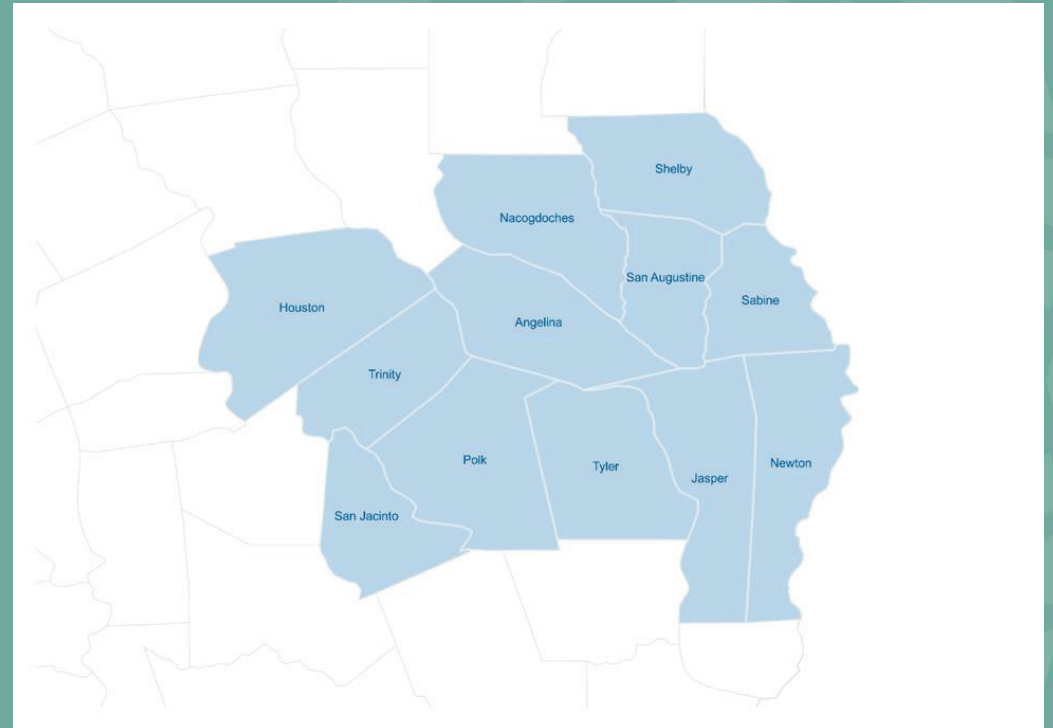
Burke

Integrated Care Grants

Burke was awarded **two (2) grants** in 2023 to improve integration of primary care and substance use services in the mental health field:
- Certified Community Behavioral Health Clinic - Improvement and Advancement (CCBHC-IA)
- Promoting the Integration of Primary and Behavioral Healthcare (PIPBHC)

These grants provided funding to our **Angelina and Nacogdoches Integrated Care Clinics** (ICCs).
- Increased Staffing
- Additional Medical Equipment
- Quality Improvement Oversight
- Opportunities for Population Health
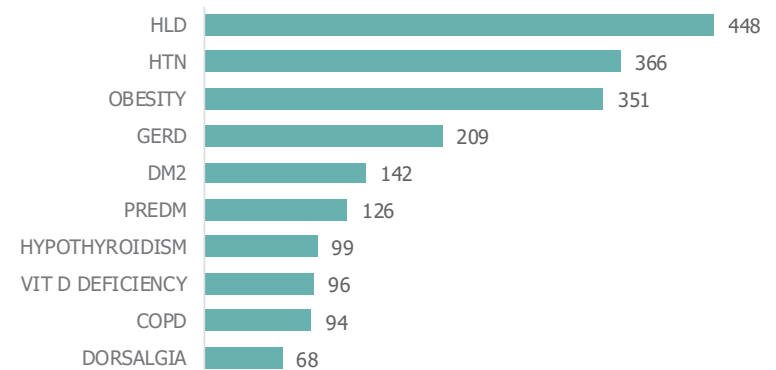
Existing Integrated Care Operations

Angelina Integrated Care Clinic:
- Focus: **Chronic Disease Management**
- Handled Acute Sick Visits
- **~1,800** visits per year
- **~1,100** unduplicated open and active individuals
- **80%** of our population does not have insurance

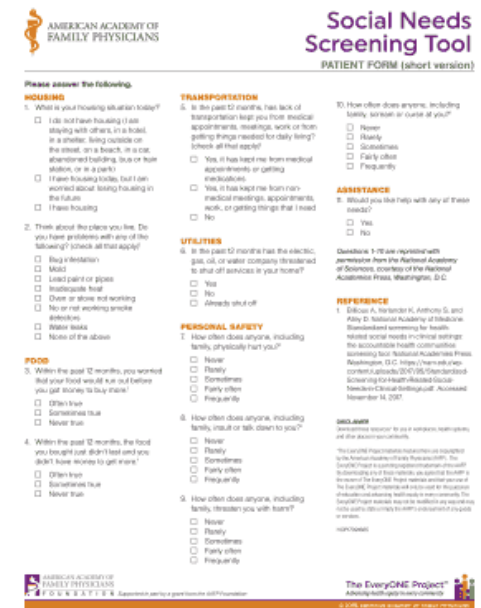Nacogdoches Integrated Care Clinic:
- Did not exist

Top 10 Diagnoses at Integrated Care

Diagnosis	Count
HLD	448
HTN	366
OBESITY	351
GERD	209
DM2	142
PREDM	126
HYPOTHYROIDISM	99
VIT D DEFICIENCY	96
COPD	94
DORSALGIA	68

AAFP's Social Drivers of Health Screening Tool

Implemented the **SDOH Screening Tool** prior to project start:
- First SDOH tool at Burke
- Completed annually (at least)
- Screens for **10 indicators**, such as:
  - Housing / Utilities
  - Food Insecurity
  - Transportation
  - Child Care
  - Employment

So What's the Problem?

Problem Statement

Current services at the Integrated Care Clinic are focused on a reactive, disease oriented treatment model. While providing universal screenings as a preventative, there is not enough time to adequately meet the needs of all patients. Therefore, we need to identify those high utilizers that are the most sick.

Reactive Services

The current medical model focuses on being reactive, with little emphasis on prevention.

Proactive

Not Enough Time

We provide universal services and have limited resources within our region to address need.

Role Distinction

State MH Model

The current TRR model is good for assessing MH risk, but not always a 1:1 for physical health.

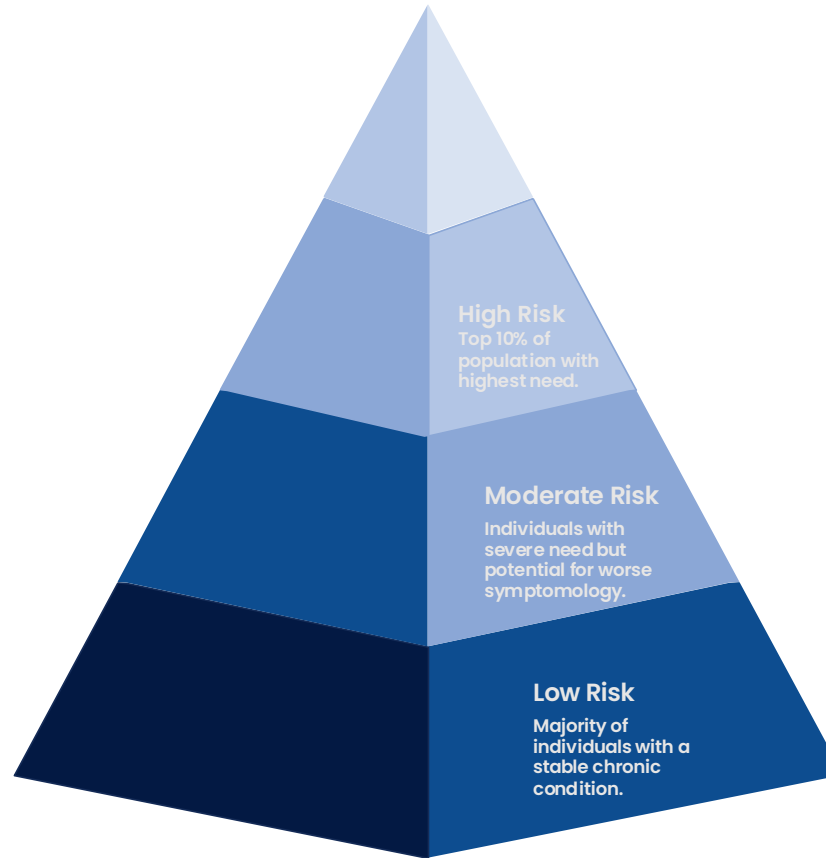**CM Model**

Measurement

The majority of our population is already moderate to high risk, so stratifying risk needs to be tailored to Burke.

Risk Stratificatio

Risk Stratification

Interventions and workflows only work as well when we **identify** the patient's risk level and can **tailor** our work to their need.

Goal: Reduce **physical health symptomology** and **hospitalizations.**

High Risk
Top 10% of population with highest need.

Moderate Risk
Individuals with severe need but potential for worse symptomology.

Low Risk
Majority of individuals with a stable chronic condition.

3 **Care Navigation**
Higher frequency, higher monitoring, and consistent problem solving.

2 **Care Coordination**
Care Coordination driven by referrals and screenings, monthly follow up, and reducing risk.

1 **Universal Screenings**
Universal screenings, emphasis on the Prescriber visit, and low intensity.

Framework: AAFP Primary Care Management Risk Stratification Methodology

Table 3: Risk Categories and Levels Using Diabetes Example Case

CATEGORY	PRIMARY PREVENTION (Low Resource Use) GOAL: Prevent onset of disease		SECONDARY PREVENTION (Moderate Resource Use) GOAL: Treat a disease, reduce rising risk, and avoid serious complications		TERTIARY (High Resource Use) GOAL: Treat the late or final stages of a disease and minimize disability	CATASTROPHIC/COMPLEX (Extremely High Resource Use) GOAL: May range from restoring health to only providing comfort care
Stage	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**
General descriptions of risk levels	No known diagnoses or complex treatments	No known diagnoses but demonstrates warning signs or potentially significant risk factors	Has diagnosis, but stabilized or in control; potentially significant risk factors	Has diagnosis and/or complex treatment, and at higher risk for complications or potentially significant risk factors	Has diagnosis, complex treatment, and complications or potentially significant risk factors– goal is to prevent further complications	• Very severe illness or condition and potentially significant risk factors • End-of-life care (May have high costs with limited or no opportunity for improvement, stabilization, or cost control)
Example using progression of diabetes	• Healthy	• Blood glucose and lipids rising, but still within desired parameters • BMI elevated • Smoker	• Diagnosed with type 2 diabetes; blood glucose, lipids brought within desired parameters • Married, family involved	• Blood glucose and lipids not within desired parameters • Cannot afford to refill insulin this month • Recently developed Microalbuminuria • Depression • Lives alone • One ER visit and one hospitalization in past year	• Has diabetes with early renal disease, coronary artery disease, failing eyesight, and lives alone • Developed a foot ulcer • Multiple medications • Three ER visits and two hospitalizations in past year • Dual eligible Medicaid/Medicare • Needs assistance with ADL	• Diagnosed with lung cancer • Recent myocardial infarction • Progression to ESRD with renal dialysis • Amputation of one leg • Blind • Lives in nursing home
Example of care plan considerations for progression of diabetes	✓ Preventive screenings and immunizations ✓ Patient education and engagement ✓ Appropriate monitoring for warning signs ✓ Health and social risk assessment (annual) ✓ Care plan that includes smoking cessation counseling and program offered ✓ Diet and exercise education		✓ Recommended preventive screenings and immunizations ✓ Appropriate monitoring for HbA1c, microalbumin, LDL ✓ Patient education and engagement for medication adherence, diet, and exercise ✓ Home self-monitoring for blood glucose ✓ Smoking cessation counseling ✓ Refer to Diabetes Self Management Education (DSME) program ✓ Care manager/coordinator visits to manage rising risk ✓ Diabetes group visits ✓ Referrals as appropriate ✓ Community resources, such as the YMCA or prescription drug assistance programs ✓ Health and social risk assessment (semi-annual)		✓ Recommended preventive screenings and immunizations ✓ Appropriate monitoring for HbA1c, microalbumin, LDL ✓ Patient education and engagement for adherence to care plan and medications ✓ Diabetes group visits ✓ Regular visits with care manager/coordinator ✓ Home health for wound care ✓ Physical therapy for mobility ✓ Care coordination with specialist and other services	✓ Rehabilitation after hospitalization ✓ Skilled Nursing Facility ✓ Palliative or hospice care ✓ Individualize intensive care management and coordination by care manager/coordinator ✓ May or may not conduct preventive screenings ✓ Health and social risk assessment, as appropriate

Variables from Methodology

We revised the methodology to include **10 variables** that our E.H.R. currently collected:

- Age
- # of Hospitalizations, past year
- # of Primary Care visits, past year
- # of Medications, active
- Chronic Disease severity
- BMI score, most recent
- PHQ9 score, most recent
- History of SUD
- MH diagnosis severity
- SDOH Screening results severity, most recent

Solution: Dashboard for Population Health Management
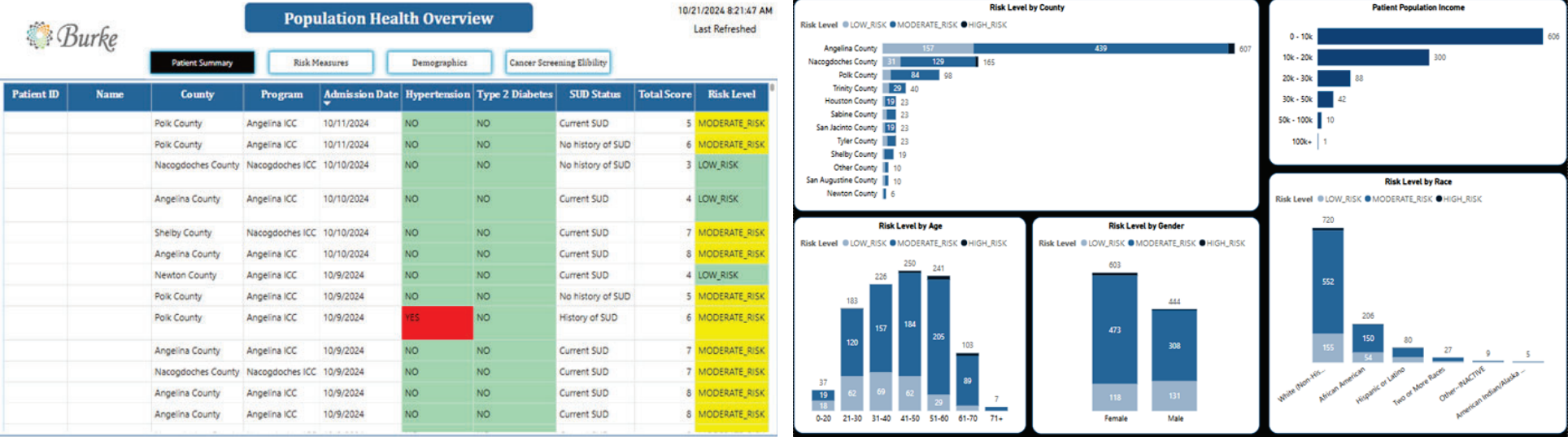
Initial Results and Census Description

Majority of patients were labeled as **'Moderate Risk.'**

Patient Panel was primarily **Female** (59%), **White** (70%), **aged 35 – 55** (50%), and from **Angelina County** (59%).

Most common High Risk Category (Score of 2 or Higher) was **Medication Score** (44%), indicating the majority of our patients juggle a number of BH and PH medications.

Score by Risk Tier

■ MODERATE RISK   ■ LOW RISK   ■ HIGH RISK
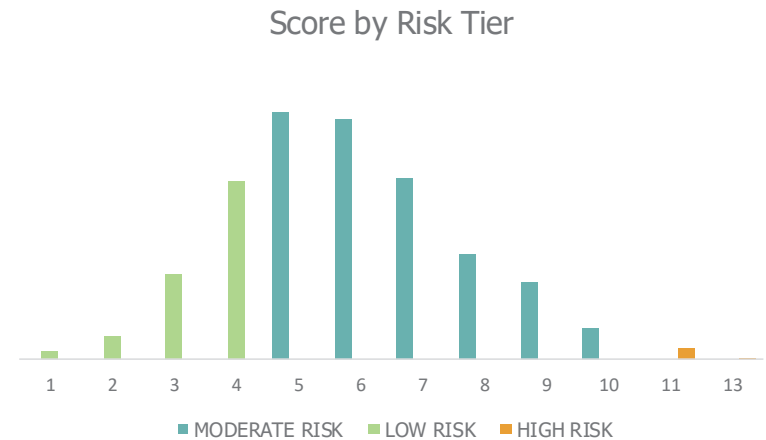
Average High Risk Patient

An average '**High Risk**' patient is often **similar to the overall patient panel**, though **older** (50+).

Most '**High Risk**' patients, however, struggle with multiple factors, including:
- **Multiple Medications**
- **Chronic Physical Disease:** Epilepsy, Hepatitis C, COPD, Hypothyroidism, and Hypertension
- **SUD:** Tobacco, Alcohol, and Stimulant Use Disorder
- **Severe Mental Illness:** Schizophrenia or Bipolar Disorder
- **SDOHs:** Housing Instability, Transportation, and Interpersonal Violence (Social Isolation) were top population concerns
- Frequent **ED Utilization** and **Hospitalizations**

Follow Up Thoughts

After the initial data pull and dashboard development, we were left with a few items to enhance clinical decision making:

- **Total Score Threshold** needs to be changed.
- **PHQ9 Threshold** is too low for a chronic MH population.
- **PC Visits** (high utilizers) are not common in our census.
- SDOH results need to be broken down **in a table** for more targeted interventions.

There were also some variables we thought **were missing** that might be helpful in predicting poor physical health:

- Average Blood Pressure (broken down by Systolic and Diastolic).
- HA1c levels
- Count of missed appointments
- Insurance, yes or no
- Income thresholds

Next Steps for the Model

1. **Predicting Physical Health Symptomology and Hospitalizations**
   1. Blood Pressure
   2. Blood Glucose Levels (HA1C)
   3. Lipid Panels
2. **Incorporating Preventative Health Tracking into the Model**
   1. Cancer Screening
   2. Vaccinations
3. **Measurement Based Care**
   1. DSMQ
   2. PHQ9 / GAD
   3. PROMIS / CCBHC Measures
4. **Health Disparity Analysis and Stratification**
   1. Socio-Demographic Indicators
   2. By County
   3. By PH, MH, and SUD Diagnosis

What Does This Look Like in Practice?

Burke

Care Management Model in Practice (Flow Chart)

All patients receive our suite of universal screenings to determine risk, most receive some form of care coordination, but few received targeted interventions and problem-solving assistance to improve their self-management behaviors.

Universal Screening
- Lab Panel (PH)
- PHQ9 (MH)
- SU Assessment
- AAFP (SDOH)

Stratify Risk
- Weekly Update
- Care Manager reviews and assigns

Care Coordination
- Follow up on referrals
- Review Screenings

Care Navigation
- Behavioral Interventions
- Transportation
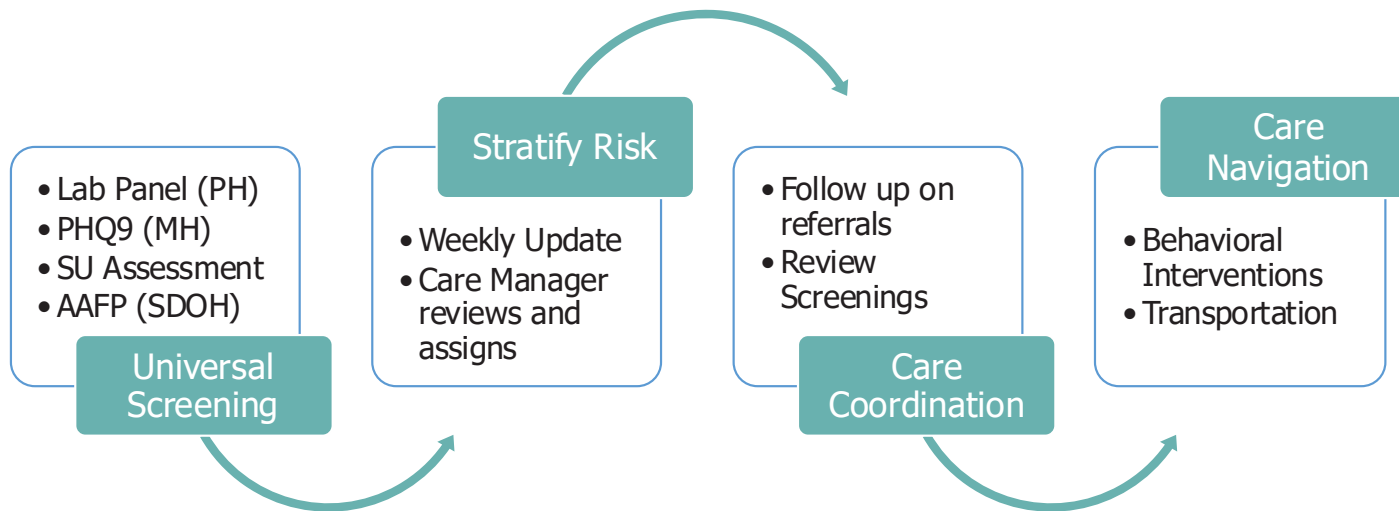
Low Risk: Universal Screenings

Tier 1 is focused on prevention, universal screenings, and routine follow through. This can include basic medication reminder calls, referral follow ups for specialist visits, and coordinating with internal Burke programs.

PHQ9 / CSSRS / Safety Plan — 1

SU Assessment — 2

AAFP (SDOH) — 3

DSMQ (Diabetes) — 4

5 — Care Coordination Referral Tracking

6 — Health Outreach and Diagnostic Education

7 — Insurance Verification

8 — Prescriber Visit

Moderate Risk: Care Coordination

Tier II is focused on reducing risk and monitoring adherence to treatment plan. Mostly care coordination, chronic disease management, and problem solving.

Idea

Primary staff that own the Care Coordination Referral Tracking system.

Success

An additional layer of support for nurses and case workers, educating the patient on diagnostics, medication, and benefits.

Research

Work is driven by the CC note and screening results. Monitoring hospitalization, referrals, and appointment attendance.

Business

Primary goal is reducing risk, so being proactive in monitoring patient symptoms is a priority. Monthly contact minimum.

High Risk: Care Navigation

Tier III is focused on high needs, high risk patients who need persistent and consistent support. This can look very similar to Care Coordination, but includes more frequent contacts, behavioral health interventions, and coordinating transport.

Overcoming Barriers to Self-Management

Coordination with MH caseworker, biweekly contacts for physical health needs, and medication adherence monitoring.

Behavioral Health Interventions, including SUD, as needed and as license allows.

Coordinate transportation for medical needs, dependent upon staffing priority and schedule.

Targeting NMDOH Needs

Transportation
- CM Transport
- Medicaid / Public Transit

Housing / Utilities
- Supported Housing
- Utility Assistance

Employment / Income
- SSI / SSDI / SNAP
- Employment Assistance

Healthcare Access
- Insurance Qualification
- Patient Assistance Program (Medication)
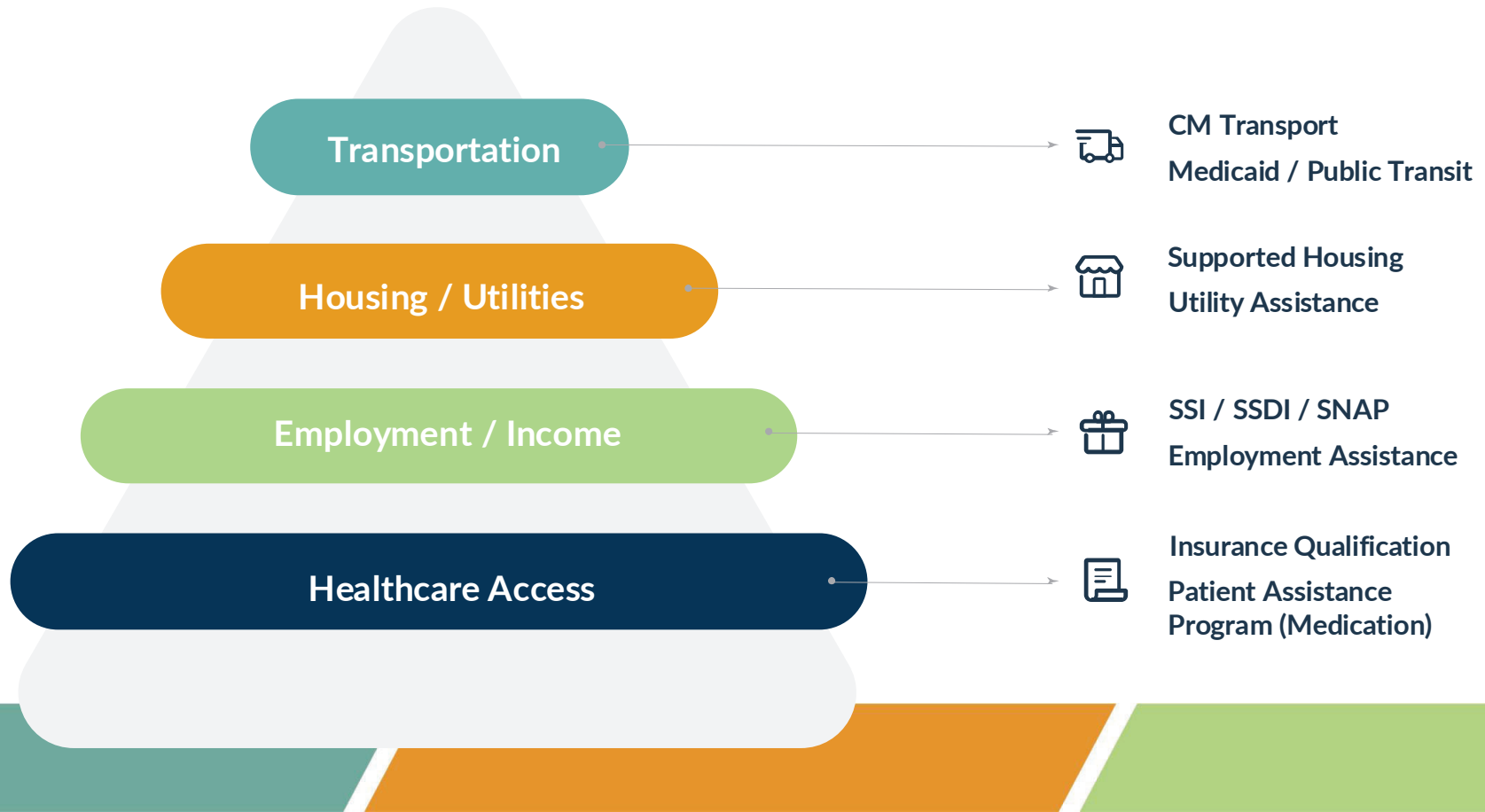
High Risk Patient Profile

Our current caseload is able to manage 50 high risk, high needs individuals with two Care Managers. These individuals are experienced, Master's Level Social Workers who primarily use Illness Management and Recovery to guide interventions.

Tri-Morbid (PH, MH, & SUD)

Frequent Hospitalizations

High # of Medications

Frequently Misses Appts.

High Persistent PHQ9 (21+)

Multiple Negative SDOHs

Targeted Intervention: Transportation

While Burke has a robust Consumer Benefits Program (for benefits applications), Supported Housing and Supported Employment, and network for adequate care coordination, **there is still a dearth of transportation options** in our region.

We decided to programmatically reduce this barrier by creating **"Transportation Thursdays"** at our Angelina ICC.

On Thursdays, Clinical Pathologies Laboratory (CPL) has a Nurse, LVN stationed in our pod to complete blood draws and send for analysis same day. As this is one of the major aspects of care coordination and follow up with our patient population, we decided to begin assigning a Care Manager to transport and schedule transport requests for Thursday morning – and some afternoons.

We have had considerable success from this schedule revision.

Identifying Problems for Quality Improvement

QI Project: Measurement Based Care for Type II Diabetes

Focus is on individuals diagnosed with Type II Diabetes or at-risk, as indicated by risk stratification process or Physician Assistant. Goal is to better measure care for self-management behaviors, not strictly governed by a pharmacological intervention.

Primarily use the DSMQ to understand, monitor, and manage those newly diagnosed.

Identify
Determine at time of initial evaluation if at-risk or newly diagnosed.

Intervene
Provide diagnostic education, materials, and community resources.

Monitor
Utilize the DSMQ to guide further self-management behavior.

Manage
Promote healthy living and follow up every three months.

QI Project: At-Home Healthcare Access for Hypertension

Focus is on individuals diagnosed with Hypertension and uninsured, as indicated by risk stratification process or Physician Assistant. Goal is to reduce barriers to healthcare access by delivering self-managed services at home.

Primarily guided by self-monitoring, digital blood pressure cuffs to guide maintenance of symptoms

Identify
Determine at time of initial evaluation if uninsured.

Intervene
Nurse provides education and calendar on blood pressure cuff.
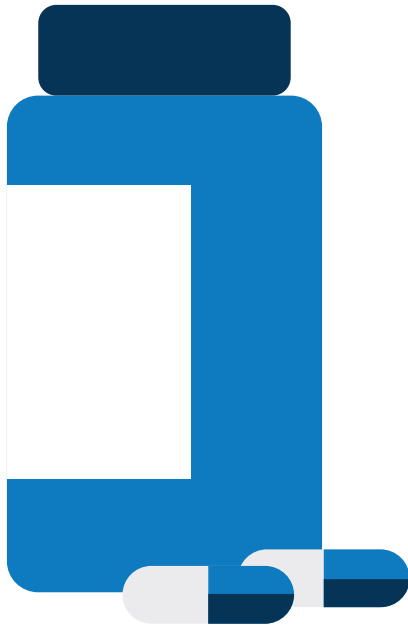
Monitor
Care Manager follows up weekly for the first month to promote habit of tracking.

Manage
Follow up monthly afterward if compliant to reinforce behavior.

Tracking Outcomes

01 Medication Adherence
Short-term outcome, tracking consistent medication compliance across the project.

02 Self-Management Behavior
Medium-term outcome, based upon self-report from the DSMQ, to see if diagnostic education and behavioral interventions improve coping skills.

03 Reduced Physical Symptoms
Medium-term outcome, examining if there is a reduction in blood pressure and blood glucose levels.
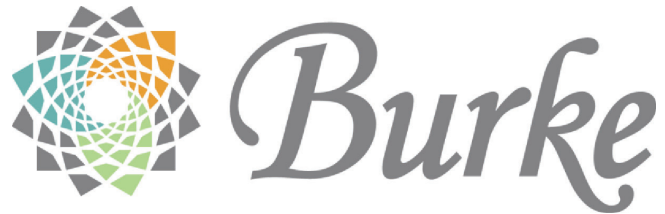
Thanks for listening! Any questions?

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