Maryland’s Health Enterprise Zones Addressing Social Determinants of Health

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“...the determinants of health are beyond the capacity of any one practitioner or discipline to manage...we must collaborate to survive, as disciplines and as professionals attempting to help our communities and each other.”

-Institute of Medicine, 1999
Complexity of Social Determinants
The Problem
Maryland 2015 Health Rankings

+3rd highest median household income
+2nd highest number of primary care physicians per capita
+6th lowest rate of smoking
  *outstanding medical schools
  *close proximity to Washington, DC and Federal agencies

-30th in Infant Mortality
-21st in cancer deaths
-30th in cardiovascular deaths
-42nd in disparity in health status
In Baltimore, even 5 miles makes a world of difference...

**Roland Park:**
- $90,492 in income
- 3.4% unemployment
- 83.1 year life expectancy
- 4.1/10,000 homicide rate

**Madison/East End:**
- $30,389 in income
- 14.4% unemployment
- 64.8 year life expectancy
- 46.3/10,000 homicide rate

Credit:
Lisa Cooper, MD, MPH, FACP
James F. Fries Professor of Medicine
Director, Johns Hopkins Center to Eliminate Cardiovascular Health Disparities
Johns Hopkins University Schools of Medicine, Nursing, and Bloomberg School of Public Health
Chronic Disease Burden

In Maryland, chronic diseases—such as heart disease, prediabetes, diabetes, hypertension—are the leading causes of death, disability, and health care costs, accounting for 70% of all deaths each year and 75% of all medical costs

(Anderson, 2010)
Obesity

• Almost two-thirds of Maryland adults are overweight or obese

• Between 2011 and 2015, there was no improvement in weight status among Maryland adults

• Obesity contributes to many health problems, including heart disease, stroke, diabetes, and some cancers

Sources: Maryland BRFSS, 2015; CDC, 2015
Hypertension

• Hypertension is a silent killer since those with hypertension often have no signs or symptoms

• 1 in 3 (33.1%) Maryland adults has hypertension

• 1 in 2 (68 million) US adults with hypertension do not have it under control, which could lead to heart disease and stroke

• Disproportionately represented among minority populations

Sources: Maryland BRFSS, 2015; CDC Vital Signs, September 2011
Diabetes

• According to the American Diabetes Association:
  – Every 17 seconds, someone in the U.S. is diagnosed with diabetes
  – African Americans are almost twice as likely to have diabetes than non-Hispanic whites

• 1 in 10 Maryland adults (10.4%) has diabetes

Burden of Heart Disease in Maryland

Heart Disease Rate by Quintile

- Less Than 5 Cases
- 32.5 - 148.9
- 149.0 - 191.1
- 191.2 - 229.6
- 229.7 - 279.1
- 279.2 - 1124.3
Infant Mortality Rate by Race and Ethnicity, Maryland and U.S., 2006 - 2015

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Data source: Maryland Vital Statistics Administration; Centers for Disease Control and Prevention, National Center for Health Statistics
Need for Focused Attention

We realize that the areas with the worst health outcomes and the most health disparities also cost the State the most money.
Mitigating Factors/Social Determinates

poverty, stress, race and racism, gender, living conditions, environmental conditions, unequal access to health care, lack of education, stigma, and culture and political are underlying, contributing factors of health inequities.
CDC Health Impact Pyramid
Factors that Affect Health

Examples
- Eat healthy, be physically active
- Rx for high blood pressure, high cholesterol, diabetes
- Immunizations, brief intervention, cessation treatment colonoscopy
- Fluoridation, trans fat, smoke-free laws, tobacco tax
- Poverty, education, housing, inequality

Check the Tarrant County Public Health Web site to learn more.
http://health.tarrantcounty.com
SB 234: Maryland Health Improvement & Disparities Reduction Act of 2012

- In 2012 SB 234, the Health Improvement and Disparities Reduction Act was signed into law, establishing the Health Enterprise Zones and providing $4 million per year to support the HEZs.

- As legislatively mandated, the purpose of establishing Health Enterprise Zones is to target State resources to reduce health disparities, improve health outcomes, and reduce health costs and hospital admissions and readmissions in specific areas of the State.

*Maryland Annotated Code, Miscellaneous Health Professions, Subtitle 14: Health Enterprise Zones, §20-1401 to §20-1407*
What are Health Enterprise Zones?

A designated local community with documented poverty, health disparities and/or poor health outcomes, where special incentives and funding streams are available to address poor health outcomes by using healthcare-level, community-level and individual level interventions.
Health Enterprise Zones

Eligibility Criteria

- An HEZ must be a community, or a contiguous cluster of communities, defined by zip code boundaries (one or multiple zip codes).
- An HEZ must have a resident population of at least 5,000 people.
- An HEZ must demonstrate greater economic disadvantage than the Maryland average:
  - Medicaid enrollment rate or
  - WIC participation rate
- An HEZ must demonstrate poorer health outcomes than the Maryland average:
  - A lower life expectancy or
  - Percentage of low birth weight infants
Health Enterprise Zones Eligibility Criteria and Data

Based on these criteria DHMH developed dynamic maps with data at the zip-code level.
January 2013 – Health Enterprise Zones Designation

Maryland's Health Enterprise Zones

Legend
1 - Anne Arundel County/Annapolis
2 - Dorchester and Caroline Counties
3 - Prince George's County/Capitol Heights
4 - St. Mary's County/Greater Lexington Park
5 - West Baltimore

Source: Maryland Department of Health & Mental Hygiene and Community Health Resources Commission, August 2013
At the time of HEZ implementation...

**Affordable Care Act**
- First enrollment period ends

**Global Budgets**
- Maryland All Payer model – payment reform/delivery system reform
- Emphasis on care coordination and
- Community clinical linkages

**Medicaid Expansion**
Health Enterprise Zones: Programmatic Elements

- **Operational Model:**
  - Coordinating Organization Manages Program
  - Hospitals, Clinics, CBOs, FQHCs
  - Application must target investments to the community
  - Must involve target audience and local assets
  - Metrics must measure change in specific outcomes

- **Maryland Department of Health and Mental Hygiene:**
  - Prevention and Health Promotion Administration: Chronic Disease
  - Office of Minority Health and Health Disparities: Cultural competency training
  - Virtual Data Unit: Clinical data, CRISP data, data analysis
  - Office of Population Health: Loan Repayment and Income Tax Credit

- **Community Health Resources Commission:**
  - Fiscal Oversight
Health Enterprise Zones Logic Model

**Strategy 1: Increase care capacity** (defined as available clinical care visit appointment slots).
*People without primary care now get that care*
Measurement: added providers, added FTE of providers, added new visit slots, *(capacity)*; proportion of new capacity that is being used, visits/hour for new providers *(productivity)*
Reach: Small

**Goal:** Reduce Potentially Avoidable Utilization (PAU)
Measurement: ED visit rates, hospital admission rates, readmission “rates” *(outcomes)*

**Strategy 3: Increase patient self-management ability** (education, home visits, case managers, CHW).
*People who get care stay healthier at home*
Measurement: added workers and FTE of workers, available caseload *(capacity)*; Proportion of available caseload that is filled, encounters per worker *(productivity)*; Quality metrics for workers if such exist.
Reach: Small to Medium

**Strategy 2: Increase care quality** (defined as NQF or similar metrics).
*People in primary care get better care*
Measurement: NQF or equivalent metrics
A) Provider guideline adherence metrics *(quality)*
B) Patient disease control metrics *(outcomes)*
Reach: Medium

**Strategy 4: Community-wide enabling interventions.**
This includes healthy food access, safe exercise, and any other intervention where users cannot be counted.
Reach: Large, but impact may be small

**Domains and Timing:**
Year 1: Hire providers/workers *(cap)*
Year 2: Fill capacity *(productivity)*
Year 3: Assure quality
Year 4: Demonstrate outcomes
Early Successes
All-Cause Unplanned Readmission Rates, 2012-2015

Source: HSCRC data prepared by the CRISP and the DHMH VDU.
Prevention Quality Indicators (PQI) Chronic Composite, 2009-2015

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Source: HSCRC data prepared by the CRISP and the DHMH VDU.
Prevention Quality Indicators (PQI) Acute Composite, 2009-2015

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Source: HSCRC data prepared by the CRISP and the DHMH VDU.
## Prevention Quality Indicators (PQI) Overall Composite, 2009-2015

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Source: HSCRC data prepared by the CRISP and the DHMH VDU.
Trend in Total Discharges per 1,000 Residents for HEZ, HEZ-eligible and Non HEZ Zip Codes, 2010-2015

HSCRC data prepared by the Johns Hopkins Center for Health Disparities Solutions
Trend in Discharges for HEZ-related Conditions per 1,000 Residents for HEZ, HEZ-eligible and Non HEZ Zip Codes, 2010-2015

HSCRC data prepared by the Johns Hopkins Center for Health Disparities Solutions
Trend in Preventable Discharges per 1,000 Residents for HEZ, HEZ-eligible and Non HEZ Zip Codes, 2010-2015

HSCRC data prepared by the Johns Hopkins Center for Health Disparities Solutions
Trend in Readmissions per 1,000 Residents for HEZ, HEZ-eligible and Non HEZ Zip Codes, 2012-2014

HSCRC data prepared by the Johns Hopkins Center for Health Disparities Solutions
Sustainability of Health Enterprise Zones

The Robert Wood Johnson Foundation has provided a one-year grant to support an HEZ sustainability planning process, which includes:

- HEZ Sustainability Summit, held on November 3, 2016
- Development of HEZ-specific promotional videos
- Development of an HEZ sustainability plan, which will
  - Identify sustainability approaches and strategies
  - Include action plans by strategy, and
  - include a summary of program successes, lessons learned, and specific recommendations for implementation in other communities and populations.
One should be able to see that things are hopeless and yet be determined to make them otherwise

-F. Scott Fitzgerald
What is Public Health?

Protecting Health, Saving Lives—Millions at a Time