THRIVE Evaluation Consortium: Year 1 Technical Report

THRIVE
TRANSFORMING HEALTH REGIONALLY IN A VIBRANT ECONOMY
GREAT LAKES BAY REGION

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Objective + Goals

The THRIVE Initiative aims to advance health and economic success for the 14 county Great Lakes Bay region. With leadership and fiduciary support from MiHIA, THRIVE is a transformational initiative to drive progress on both health and economic outcomes in our region. This process involves intervening at scale with evidence-informed efforts that include building collaboration and capacity of community organizations, with sustainable resources fueling individual intervention implementation and evaluation, a portfolio management process, a comprehensive overall evaluation, and a multi-level dissemination system.

Fundamental to the work of THRIVE is measurement of impact of this initiative. To that end, an Evaluation Consortium was formed to accomplish the necessary evaluation and feedback essential for THRIVE, while simultaneously improving capacity for population health and community success evaluation within MiHIA and across local universities, organizations, and researchers, building stronger partnerships among them and with state experts.

The initial charge of the THRIVE Evaluation Consortium was to increase evaluation capacity to the benefit of THRIVE and our region in three ways: 1) conducting critical next steps to take the evaluation from planning to action, 2) developing a multi-organization evaluation team with a shared vision for how evaluation data will inform THRIVE ongoing portfolio management and illustrate progress of programming, as well as the collaborative relationships that will be leveraged into the future, and 3) developing processes and methods that will support learning from the measurement and evaluation across THRIVE's participating partners, backbone organizations, and the Steering Team.

The THRIVE Evaluation Consortium has been focused on the following **OBJECTIVES**, with activities related to the first three included in this report:

1. Perform a technical review of the proposed THRIVE Macro-Metrics (and measurable corresponding specific metrics) created by regional leaders with recommendations for improvement (availability, potential gaps and barriers, potentially superior metrics).
2. Recommend how projected outcomes from the system modeling that informed the portfolio can be used to identify key assumptions and measure success.
3. Identify methodology and data sources for all proposed metrics, considering traditional and more unique approaches (i.e. specific process evaluations, GIS mapping, ethnography, etc.), and incorporation and expansion of the already existing dashboard.
4. Develop the overall reporting template, and plan for implementation and reporting to leadership and stakeholders, to include identification of roles of all individuals involved.
5. Conduct an evaluation of effectiveness of the backbone organization(s) in advancing THRIVE

To accomplish these objectives, we have engaged in the following **ACTIVITIES**:

1. Regular meetings (at a minimum monthly) of the entire Evaluation Consortium with activities to include planning, active work on objectives, assignment of work to individuals and small teams, and review and finalization of various work product
2. Regular meetings (at a minimum monthly) of the leadership team (Chair, Co-Chair, MiHIA leadership) to identify short term goals, work on specific tasks, and review processes for the Consortium.
3. Work by individual members and small teams to carry out specific tasks toward accomplishing goals
4. Coordination of work by outside partners for provision of needed data and information
5. Education of consortium members and stakeholders related to the metric development process generally and the dashboard and other tools specifically

Evaluation Consortium Team

Several organizations participated in concept review and input for the Evaluation Consortium and participated by committing individuals and resources including:

- Central Michigan University - College of Medicine, College of Health Professions (CMU)
- Saginaw Valley State University - College of Health Professions, School of Business (SVSU)
- Michigan State University - Axia Institute (MSU)
- University of Michigan - Department of Learning Health Sciences (UM-DLHS)
- Michigan Public Health Institute (MPHI)
- Public Sector Consultants
- Center for Health & Research Transformation (CHRT)

The current Evaluation Consortium membership includes:

- Beth Bailey, PhD, Professor and Director of Health Services Research, Central Michigan University College of Medicine. Dr. Bailey serves as Director of the Evaluation Consortium
- Clare Tanner, PhD, Director, Center for Data Management and Translation Research, Michigan Public Health Institute. Dr. Tanner serves as Co-Director of the Evaluation Consortium.
- Michael Klinkman, MD, Professor of Family Medicine, University of Michigan, and Co-Director, Great Lakes Research Into Practice Network
- Tom Miller, Vice President Urban & Special Initiatives, Saginaw Future Inc
- Judith Ruland, PhD, Dean, College of Health and Human Services, Saginaw Valley State University
- Danilo Sirias, PhD, Professor of Management, Scott L. Carmona College of Business, Saginaw Valley State University
- Tracy Webb, Outreach Manager, Michigan Health Information Network
- Dimitrios Zikos, PhD, Assistant Professor of Health Administration, College of Health Professions, Central Michigan University

Additional involvement from MiHIA includes:

- Matthew J. Samocki, EdD, THRIVE Portfolio Director
- Catherine M. Baase, MD, Chair MiHIA Board of Directors
- Dallas Rau, THRIVE Executive Administrative and Operations Leader

Recommended Metrics

Over the course of the last year, the Evaluation Consortium met regularly to work on the development of an evaluation plan. We began by reviewing the evaluation metrics being used/proposed to evaluate each individual intervention, in order to develop an understanding of what is already being assessed and how the evaluation we are charged with will provide evidence of success at a more macro level. Next, we reviewed the macro evaluation metrics originally suggested by the regional leaders as part of the development of the THRIVE portfolio, and the system modeling that occurred, to see which of those were feasible and to develop a better understanding of what the community felt would be good indicators of success of the THRIVE Initiative. We then worked on developing a classification system that divided the possible metrics into general types, and formed separate work groups from the consortium members to work on researching appropriate metrics. Following this, the work groups reported back to the full consortium team with a list of possible metrics and the advantages and disadvantages of each. While this was occurring, we had assistance from graduate students from Central Michigan University who developed a master spreadsheet of all metrics that had been discussed along with all of those on the MiHIA dashboard, which also involved classifying the metrics into smaller categories. Finally, we had several meetings and communications to sort through all of this information and arrive at a final set of metrics recommended to provide an overall evaluation of the effectiveness of the THRIVE portfolio at improving health in the region.

The final proposed metrics are shown on the next several pages. We worked to have a mix of composite metrics that assess multiple constructs at once, and individual metrics that evaluate specific key indicators. While we were challenged by the fact that much of the existing data from which metrics can be drawn does lag in availability (up to four years in some cases), we worked to find a mix of fairly current leading indicators, and more comprehensive lagging indicators that will take a little more time to show an effect of the THRIVE Initiative. Finally, metrics considered had to be well-validated, widely used and accepted, and available at the county level with good comparison data.

Final Metric Classification

1. Overall Community Health
2. Health and Wellbeing
    a. Health and wellbeing outcomes
    b. Health drivers: Behaviors
    c. Health drivers: Health services
    d. Health drivers: Social Determinants
3. Economic Wellbeing
    a. Economic outcomes
    b. Economic drivers: Jobs and labor force
    c. Economic drivers: Regional attractiveness

Metrics: Overall Community Health

Category: Overall

The purpose of THRIVE is to change the health and economic landscape. A single overall metric can be used that cross-cuts health factors and economic drivers.

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
Healthiest Communities Overall Score	U.S. News and World Report	Annual, 2019 most recent	Well-respected measure that is a composite of 80 different metrics across 10 different health and economic categories; available for all regional counties with state and national comparison rates available	As it includes so many metrics, significant improvements in a few areas may be masked	Recommended by original steering team; Used by many organizations as an important health metric, Captures so many of the factors MiHIA/THRIVE are working to improve; Recently available data; Already a part of the MiHIA dashbaord

Metrics: Health + Well-being

Category: Health and Well-being Outcomes

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
Morbidity Ranking	County Health Rankings - Robert Wood Johnson	Annual, most recent data indicated as 2020, data from 2018	Validated and reliably collected metric; good summary measure that combines 3 self-health ratings and 1 objective health indicator (low birth weight); available for all regional counties with state and national comparison rates available; already part of the MiHIA dashboard	Improvements in one area may be masked by no change or a decrease in other areas	Metric used by many other organizations as a primary health indicator; Shorter lag time than some other indicators; Available by county with good comparison data
Mortality Rates	CDC-WONDER	Annual, most recent 2018	Reliably collected metric; available for all regional counties with state and national comparison rates available; Can be broken out for different causes of death (including deaths of despair), age groups, and racial groups, so will allow for an examination of whether disparities might be widening or narrowing for specific groups	Will actually be multiple metrics if break out different causes of death or different demographic groups; Not currently part of the MiHIA dashboard (but easy to access updated data from CDC)	Mortality rate was recommended by original steering team; Good global metric of health; Reasonable lag time; Available by county with good comparison data
Adults 20+ who are obese	CDC	Annual, most recent 2017	Validated and reliably collected metric; available for all regional counties with state and national comparison rates available; already part of the MiHIA dashboard	Data availability lags by as much as 3 years	Recommended by original steering team; Metric used by many other organizations as a primary health indicator; If we go with only one specific disease states, obesity makes sense to include given the high rates in the region, the improvement that can be expected, and the number of outcomes it can impact (especially heart disease and diabetes); Available by county and with good comparison data
Number of mentally unhealthy days in the past 30 days	CDC PLACES	Annual, most recent 2018	Reliably collected metric; fairly objective indicator of overall mental health in the region with significant implications for health	Data lags by as much as 3 years; will need to cull from 2 data sources - 6 counties are available through Michigan BRFSS and available on the MiHIA dashboard, remaining counties would need to be pulled from rates/estimates from County Health Rankings which use the national BRFSS and are not on the MiHIA dashboard.	Important wellness indicator that also impacts many aspects of health, and correlates with general health, negative health behaviors, and health care engagement; Significant issue in our region
HIgh blood pressure prevalence	Michigan BRFFS	20187-2019	Same as avove	Same as avove	Important health indicator that is a significant problem in the region

Metrics: Health + Well-being

Category: Health Drivers - Behaviors

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
Health Behaviors Ranking	County Health Rankings - Robert Wood Johnson	2021*	Validated and reliably collected metric; good summary measure that combines 9 different health behaviors; available for all regional counties with state and national comparison rates available; already part of the MiHIA dashboard	Improvements in one or a few health behaviors may be masked	County health rankings generally were recommended by original steering team; Metric used by many other organizations as a primary health indicator; Lags by 2 years or less; Available by county with good comparison data
Adults 20+ who are sedentary	County Health Rankings - Robert Wood Johnson	Annual, most recent 2017	Reliably collected metric; specific behavioral indicator with significant implications for overall health and specific health outcomes; available for all regional counties with state and national comparison rates; already part of MiHIA dashboard	Data lags by as much as 3 years	Physical activity was recommended as a metric by the original steering team; Provides a specific behavioral measure that correlates with many health outcomes; frequently used behavioral health measure
Adult smoking	CDCPLACES	Annual, most recent 2018	Reliably collected metric; specific behavioral indicator of a high rate negative health behavior in the region with significant implications for health	Data lags by as much as 3 years; will need to cull from 2 data sources - 6 counties are available through Michigan BRFSS and available on the MiHIA dashboard, remaining counties would need to be pulled from rates/estimates from County Health Rankings which use the national BRFSS and are not on the MiHIA dashboard	Important health behavior that impacts many aspects of health, and correlates with general health, other negative health behaviors, and health care engagement; Significant issue in our region
Annual opioid hospitalizations	Michigan Substance Use Data Repository	Annual, most recent 2017	Reliably collected metric; objective indicator of a significant negative outcome from a health behavior with major implications for health; focuses on a significant health issue in the region; already part of MiHIA dashboard	Data lags by as much as 3 years	Important health behavior that impacts many aspects of health, and correlates with general health, other negative health behaviors, and health care engagement; Significant issue in our region; can compare to all other counties in Michigan

Metrics: Health + Well-being

Category: Health Drivers - Health Services

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
Clinical Care Ranking	County Health Rankings - Robert Wood Johnson	2021*	Validated and reliably collected metric; good summary measure that combines 7 separate indicators of health care availability, being insured, preventable hospital stays, chronic condition monitoring, and preventive health care services received; available for all regional counties with state and national comparisons available; already part of the MiHIA dashboard	Improvements in one or a few indicators may be masked; does lag somewhat	County health rankings generally were recommended by the original steering team; Gets at many health service factors at once; This is a well established and respected metric; Good reference data available
Childhood immunization rates by 36 months	Anne E. Casey Foundation	Annual, most recent 2019	Good specific indicator of both childhood health protection due to receiving health care, and interface with health services more generally; available for all regional counties with state and national comparison data available; already part of the MiHIA dashboard	Lags by up to 2 years; is very specific so does not capture all aspects of pediatric health services	Metric used by some organizations as a good proxy for pediatric health services; lag time not unreasonable; Good comparison data; Would have liked to include a comparable metric for adults having a regular provider or getting annual wellness exams, but there seems to be a lack of good indicators avaiable for all of our counties
LeapFrog Hospital Safety Grade	The LeapFrog Group	Semi-annual, most recent second half of 2019	Increasingly recognized indicator of hospital safety; composite rating based on 28 CMS established safety related performance measures; recent information available; includes most hospitals in the region which can be compared to others across the state and nationally	Hospitals do self-report their metrics so could be some bias; not currently part of MiHIA dashboard, but easy to access	Recommended by original steering team; Good global and recent measure of facility safety
HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems)	Centers for Medicare and Medicaid Services	Quarterly - most recent data through December 2019	About the only highly standardized national measure of patient rating of their healthcare; all regional hospitals are typically included and data is available for state and national comparisons; little lag time as available within a year of reporting	Not part of the MiHIA dashboard, but easy to access	Recommended by original steering team; Good global and recent measure of patient satisfaction with healthcare

Metrics: Health + Well-being

Category: Health Drivers - Social Determinants

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
% households in suboptimal housing	American Community Survey	2015-2019	This metric includes both housing quality and housing affordability in one measure: both of which are a determinant of health and well-being.	As a five year moving average, this metric will not respond quickly to change. Since it is available down to census tract, it does measure variation across places.	Recommended despite drawbacks as perhaps the best metric in the domain of housing.
Food insecurity	Feeding America.org	Annual, most recent 2018	Overall and childhood rates available; based on CPS Food security supplement. This metric was adopted by WIN.	Data are 2 years old; moreover they are estimates based on a statistical model in which parameters are based on predictors of food insecurity at the state level. In that sense, the estimates might not provide unique information over and above what is in the statistical model.	We summarize this information as one possibility for comparing estimated insecurity across the region. However, it may be less useful for tracking change over time for the following reasons; some of the underlying data are based on the ACS which as described above are 5 year moving averages, estimation depends on underlying empirical associations with other data (unemployment, income, race, etc.), so may not really be a unique data point on hunger.
Households without a vehicle	American Community Survey	2015-2019	Transportation impacts health in a number of ways: 1) access to reliable transportation enables participation in economic and social aspects of community and enables access to medical care; 2) commuting alone (thus impact on the environment); 3) active transportation (walking and bicycling promote active lifestyle)' and 4) safety. With this metric we elevate the first dimension of transportation because of THRIVE's emphasis on the interrelationship between health and economic vitality.	A five-year moving average - this will not respond quickly to change. Also, this leaves out important dimensions of how transportation impacts health (see right). Also, access to vehicles may be less important in areas with strong public transportation.	Populations in this region are heavily dependent on motor vehicles.

Metrics: Economic Well-being

Category: Economic Outcomes

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
Median income	American Community Survey	2015-2019	Income is related to health, well-being, and other social determinants.	Small area estimation means the measure uses statistical modeling (incorporating other data items and data from outside the area), and therefore might not be completely accurate, and might not represent local change as well.	Based on relevance, granularity, and reasonable timeliness, we recommend the measure despite drawbacks. If measures are being reduced, I would prioritize poverty rate over income.
% ALICE households	United for ALICE.org	Metric is produced annually, most recent data year = 2019. Some components of the measure may be 5 year moving averages for smaller counties.	Relates income to ability to meet basic needs - using county specific data	Data can be tracked over time, it appears in smaller counties, underlying data might be 5 year averages, will not represent near term change well.	Shows the number of households that are struggling economically - which is related to health and other outcomes.
Children in poverty	American Community Survey	2015-2019	Granular and reasonably timely.		It is possible to see trends in this data element from year to year. Poverty is associated with many health and well being outcomes. This measure is part of several health measure sets including CHR&R, WIN, and City Health Dashboard.

Metrics: Economic Well-being

Category: Economic Drivers: Jobs and Labor / Regional Attractiveness

Jobs + Labor Force

Regional Atttractiveness

MEASURE	SOURCE	TIMELINESS	ADVANTAGES	DRAWBACKS	RATIONALE
Unemployment Rate	BLS	Monthly	Timely data at the county level. Employment is related to physical and mental health. Unemployment is related to unhealthy behaviors (diet, activity, substance use).	Doesn't include people not in the labor force, does not address whether jobs are 'good'.	The drawbacks can be addressed by including additional metrics. The timeliness and granularity are very helpful. Also part of the WIN metric set.
Civilian Labor Force Average Annual number	American Community Survey	2015-2019	Timely data at the county level.	This is not labor force participation rate, but raw number. So it doesn't relate labor force participation to the non-institutionalized population.	Despite drawback, it is more granular and timely than rate data. This metric would be impacted by underlying trends - including out-migration, institutionalization, and dropping out of the labor force for various reasons. All those underlying trends are of interest to THRIVE.
Third grade reading proficiency	Anne E. Casey Foundation	Annual, 2019 most recent	Available locally and on a reasonably timely basis (2019/2020 data are not available due to COVID)		A child not reading by third grade will fall behind in all subjects - a key developmental indicator and important for continued educational success.
High school graduation	Anne E. Casey Foundation	Annual, 2019 most recent	Available locally on a timely basis		A core education metric available in a timely way at a local level. Note we also suggest 'some college', as in today's economy high school is not generally regarded as sufficient to obtain a good wage/salary.
Some college education	County Health Rankings - Robert Wood Johnson	2015-2019		For communities smaller than 20K, only available thru ACS in 5 year averages. Will be hard to monitor trends.	The relationship between higher education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles. Having an educated workforce is important for THRIVE's economic goals.
Migration	Census (derived from ACS)	Available county to county (5 year averages small counties, larger counties may have more recent/annual data)	Data could be aggregated to produce 3 measures for each county: 1) net migration from/to elsewhere in THRIVE region 2) net migration from/to elsewhere in Michigan 3) net migration from to outside of Michigan (one can also look at inward and outward migration separately, and use the mapping tool on the census website)	Less than timely	This relates to core aspects of the simulation modeling: in combination with civilian labor force data, it may indicate whether new jobs are attracting migration from elsewhere in Michigan to fill the new jobs; also outmigration indicates low regional attractiveness.

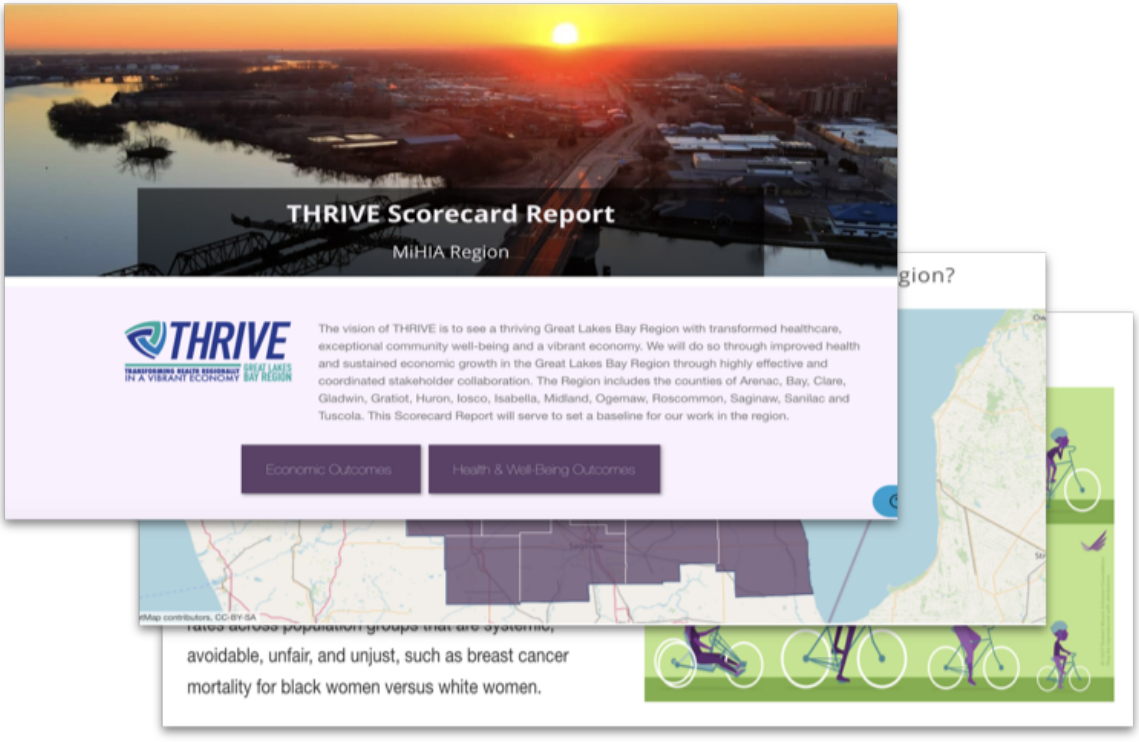
Availability of Data: MiHIA Dashboard

As part of the work of the Evaluation Consortium the past 18 months, effort was devoted to accessing the data for the final Overall THRIVE Evaluation Metrics. The decision was made to make all of the metrics available as part of MiHIA's Health Dashboard 4.0 (accessed at http://dashboard.mihia.org/).

Overall, Dashboard 4.0 creates a common place for health-related regional data to be obtained, allowing individuals quick access to information about health status and quality of life for communities throughout the Great Lakes Bay Region.

The THRIVE Scorecard is an additional element of Dashboard 4.0 that provides annual data for all of the final Overall THRIVE Evaluation Metrics. Tutorials are available within Dashboard 4.0 to guide access and use of specific data points, which are available by year, and in many cases by individual county/census tract, and other subpopulation groups.

A special Focus on Equity page includes tools to examine specific data related to potential disparities. Reports, including graphs, tables, and maps, can also be generated and some have been prepared in the pre-populated Maps Collection. These data will be updated automatically whenever new data become available for each metric, and will be the basis for regular reports generated by the THRIVE Evaluation Consortium.



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Plan for use of data

The data analysis plan will take the general format of comparing metrics from before the implementation of THRIVE to years after the implementation of THRIVE. As only aggregate data will be available, these analyses will be largely descriptive. However, inferential statistics including modeling will be used whenever possible.

Specifically, the analysis plan will include:

1. Comparisons of overall values for each metric for a period of years prior to THRIVE with overall values for each metric for a period of years after THRIVE implementation. Patterns over all metrics and within subsets of metrics will also be examined.
2. Trend analysis to look at changes in metrics year over year, with particular focus on points of larger change and how that aligns with THRIVE work being done, as well as alignment with other community and societal changes.
3. For the metrics where this level of detail is available, subgroup analyses will be performed to identify whether specific disparities (by race/ethnicity, socioeconomics, location) are being widened or narrowed following the implementation of THRIVE.

Given the availability of the evaluation metrics on the MiHIA Dashboard, anyone will be able to descriptively compare metrics prior to and after the implementation of THRIVE interventions. However, the Evaluation Consortium will provide a complete and detailed analysis at least annually (and potentially semi-annually as appropriate), resulting in a report that will include all analyses, a narrative summary, and tables, graphs, and other visuals to detail the progress and success of THRIVE in meeting overall objectives.