



**BEACON**<sup>™</sup>  
HEALTH SYSTEM



Community  
**BENEFIT**

2016 | REPORT

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# COMMUNITY HEALTH

## PRIORITIES

2016 - 2018



**Access to Healthcare /  
Uninsured**  
Programs: 5



**Diabetes**  
Programs: 3



**Violence / Safety  
/ Trauma**  
Programs: 4

### Factors of Well-Being



**Purpose**  
Interventions: 15



**Social**  
Interventions: 14



**Financial**  
Interventions: 7



**Community**  
Interventions: 12



**Physical**  
Interventions: 16



**Overweight /  
Obesity**  
Programs: 6

### Goals



Formulated: 73



Achieved: 38



In-Progress: 35



**Maternal / Infant  
Health  
Prenatal Care**  
Programs: 7



**Mental Health /  
Suicide**  
Programs: 6



# Letter from the Editors

In 2016, Community Health made tremendous strides in helping both our internal and external partners orient their work toward achieving more substantiated community benefit. To achieve this, we strategically improved several parts of the Community Health Needs Assessment process and increased our partner support in several ways:

We hosted an all-partner workshop celebrating their previous accomplishments, described the CHNA process, introduced new priorities, and explained our own higher accountability requirements under the ACA.

In partnership with enFocus, we began researching national and state standards for program efforts and then met repeatedly with our partners to craft more rigorous but appropriate performance indicators and measures for their local efforts.

Tithing report documents were redefined with standard formats and regularly scheduled due dates every partner was expected to utilize. This helped us intercept and resolve potential problems and enabled us to more easily assemble their results into the documents for the IRS.

We provided lots of compassionate accountability during individualized meetings with different partners to provide them with ongoing feedback on their reports until the content met our higher standards. Many partners have repeatedly thanked us for this individualized help, which has increased their capacity to understand and fulfill more stringent but similar grant funding requirements from other local, state and federal agencies.

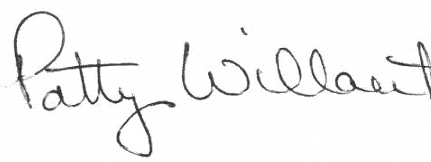
enFocus was hired to obtain and analyze hospital data to begin assembling a more comprehensive portrait across all the priority areas. Then we invited community partners from each priority area to join our team and enFocus in one of six focus groups. Their expertise helped us identify data that should be included in the larger population health analysis to formulate more informed solutions for improving community health.

There was a successful transition of systematic processes for reporting Community Benefit across Beacon. Likewise, opportunities were created to identify previously uncaptured Community Benefit work being provided within hospital departments.

In sum, Community Health is building a solid foundation on which to expand its outreach and improve health by supporting establishments and initiatives striving to achieve optimal community benefit. We realize and are committed to the value of developing the work done by one organization as well as in promoting the network building necessary to achieve collective impact. Thank you for having a shared vision to create change and being an essential part of achieving health outcomes for the identified priorities in our communities.



Patty Gremaux  
Director, Community Outreach  
Elkhart General Hospital



Patty Willaert, MPA  
Director, Community Outreach  
Memorial Hospital



Kimberly Green Reeves, MPA  
Community Benefit Investment  
Coordinator  
Beacon Health System

# Introduction

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Creating community health is at the core of Beacon Health System's mission, but it goes beyond just treating an illness. It's about prevention, health education, community outreach, innovative partnerships and dynamic services and programs that change behaviors, empower good decision making and ultimately improve well-being and quality of life. Community Health works with multiple organizations in a community health collaborative and uses data-driven, evidence-based and transparent practices to chart progress and measure health impact as a result of the Community Health Needs Assessment (CHNA).

The primary goal of our evaluation is to ensure that community benefit efforts are addressing targeted health needs and making a difference in the community. By analyzing the effects and results of the actions implemented, we can assess whether programs have achieved their intended impact on prevention, added value to the work of clinical transformation teams in the hospital, and made informed decisions when addressing the divergent health care needs of those needing it the most.

During the first year of the CHNA's three year cycle, Community Health worked towards integrating outreach efforts and hospital data to create population health solutions. For community outreach, population health represents community benefit

programs rightly focusing on the underlying causes of health problems, including the social determinants of health for vulnerable and at-risk community members. Hence, Beacon Health System's community outreach extends beyond the individual and focuses on health outcomes of an entire group, community, culture or institution.

This Community Health report includes:

- ▶ Community Health Needs Assessment Reports for Elkhart General Hospital and Memorial Hospital South Bend;
- ▶ An overview of the 2015 CHNA process conducted by Beacon Health System in Elkhart and St. Joseph Counties;
- ▶ Population health profiles of Beacon Health System community members served;
- ▶ A brief description of the programs' designs to create change;
- ▶ Changes in the target group as a result of the programs' (OUTCOME); and
- ▶ The effect of outcomes over time on a larger issue and/or the community as a whole (IMPACT).

Beacon Health System, established in 2012, is the region's most trusted partner and guide to creating and maintaining health and well-being.

Our award-winning partners – Elkhart General Hospital, Memorial Hospital of South Bend, Memorial Children's Hospital, Beacon Home Care, Beacon Medical Group – are powered by our more than 7,000 associates providing the best care possible to people of all ages. As the regional leader in childbirth, mental health, cancer, pediatrics, trauma, heart and vascular care, stroke, surgery, weight loss services and community health programs, Beacon Health System is helping our region achieve the highest quality of life.

In late 2014, planning and coordination occurred among Beacon Health System executives and the Community Benefit staff from both Elkhart General Hospital and Memorial Hospital of South Bend regarding each county's CHNA. Beacon Health System contracted with Holleran Consulting of Lancaster, Pennsylvania to facilitate the CHNA process including the gathering and vetting of secondary data from multiple sources; coordinating the online surveys of both key informants and community members at large; and compiling the final report for identifying the priority needs described in this report.

# Beacon Health System Organizational Alignment

## UTILIZATION OF HOSPITAL DATA

In 2016, Community Health hired enFocus to analyze the data of both Elkhart General and Memorial-South Bend Hospitals. We believe the data can enable us to be more informed and focused in our decisions on meeting the designated priority needs. Ultimately, the data will help us achieve the following three important goals:

- ▶ More thoroughly align and focus joint efforts between the hospitals and its community partners to improve our community's health and well-being.
- ▶ Identify areas where Community Health and clinical teams could collaborate and use resources more effectively for community benefit.
- ▶ Determine how Beacon Health System resources could be used more efficiently across its own organizations and health partners for regional benefit.

## PREDICTIVE ANALYTICS

Their findings and predictive analytic results appear in the introductions to each Priority Section of this report. The following regression results provide insight into the strength and direction of those local relationships, which can also be compared with national averages. All

of the predictions have a significance level of 95% and higher using IBM's Watson Analytics and R. This information will help focus our joint hospital and community outreach efforts to improve population health.

## ORGANIZATIONAL ALIGNMENT FOR PROVIDING COMMUNITY BENEFIT

As a community not-for-profit organization, our history confirms that we take seriously our responsibility to invest our resources and energies into understanding and meeting the health care needs of all members of our communities, especially the underserved. In order to ensure our organizational alignment with Beacon Health System's mission, vision, and values, we provide and support community programming that:

- ▶ Addresses one of the health priority themes identified in the most recent Community Health Needs Assessment.
- ▶ Promotes indicators of well-being – purpose, social, financial, community, physical health.

## HOW SUCCESS IS BEING MEASURED

Establishing goals and determining projected outcomes is an important part of the process. Goals convey the overall, broad intent of the program, focusing on who will be affected and what will change as a

result of the program or intervention. In order to accomplish the outcomes intended, the following steps were taken:

### Determine a Priority Focus

Define the general purpose of the priority as a result of the identified need and show the area of concentration set forth from the implementation strategy.

### Establish Indicators

Use metrics to help determine the impact of the priority on the community. They illustrate the progress that is being made so as to provide a quick view of the status of the priority.

### Create Goals and Activities

**Goal:** Describe in detail what the programs will accomplish. The goals show explicitly the impact the program is making towards the indicators.

**Activity:** State the program's services provided to the community. Shows how program efforts are related to the indicators and the priority focus.

### Identify Measures

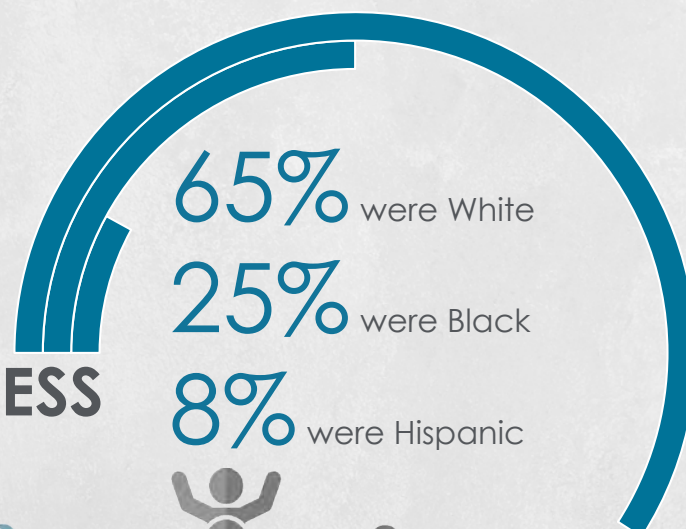
Illustrate metrics and the progress towards reaching the program's goal. This should be representative of improvement on the indicators depicted.

# Beacon Health System

## Connection with CHNA Priorities

Out of **124,216** visits in 2016:

\*For the purposes of this report, 'visits' are hospital entries where services are rendered as patients; they do not represent individuals.



### ACCESS



**23%** were under 20 years old and **34%** were over 50 years old.

### DIABETIC

32% HbA1C higher than 9

high

30% HbA1C between 7 and 8.9

medium

36% HbA1C between 5 and 6.9

low

3% HbA1C of under 5

extremely low

15% had HbA1C listed

# RISK

**86%**

of pregnant mothers were non-smoking



# INFANT HEALTH



**55%** were female



**45%** were male



# MENTAL HEALTH

**21%** of visits had depression diagnoses.

**12%** of visits had anxiety.

Of visits by those under 20, **19%** had depression and **7%** had anxiety.

Visits from those older than 50 were much the same - **22%** had depression; but **15%** are cited with anxiety.



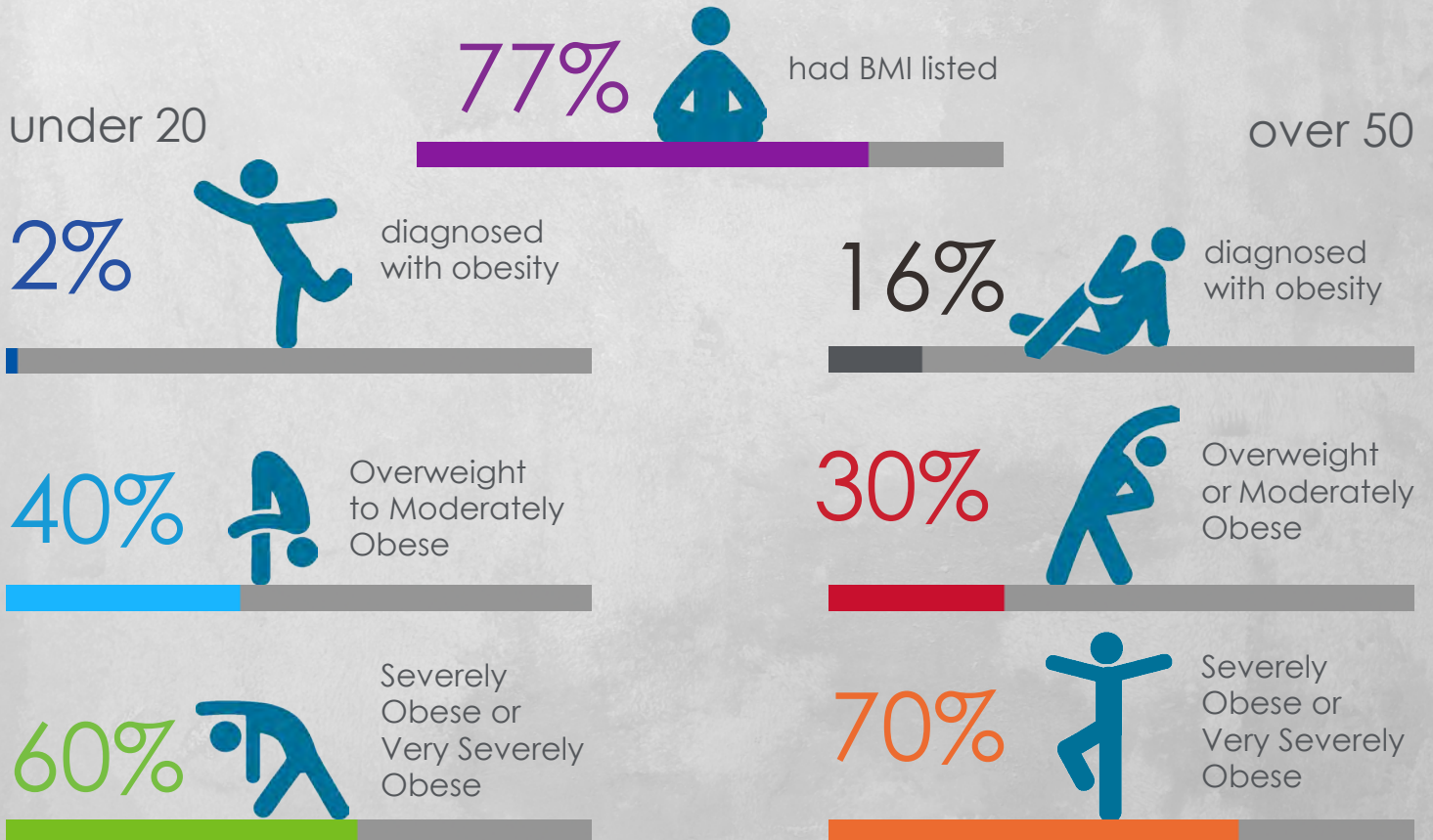
# GUN VIOLENCE

Of the **118** gun-related injuries, **44%** were assaults by gun, and **54%** were accidental shootings.

**86%** gun-related injuries were among males.

There were **799** assault injuries in 2016. Of these, **31%** were between 20-29 years old, and **26%** were between ages 30-39 years old.

# OBESITY



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Within each priority the following is included:

- Significant Health Need
- Predictive Analytics
- Program to Address the Need
- Outcome(s)

Elkhart General Hospital

COMMUNITY

HEALTH NEEDS

ASSESSMENT



REPORT

# Introduction

Elkhart General Hospital (EGH) is a not-for-profit hospital located in Elkhart, Indiana. The Main Hospital Campus is situated in the City of Elkhart beside the St. Joseph River. EGH is a full-service, 410-licensed-bed main hospital comprised of over 300 physicians representing more than 30 medical specialties. Nearly 2,000 employees serve in nursing, technical, administrative, and support capacities. We carry out that mission one patient at a time, one family at a time, and always put our patients' needs first. We measure our services to all our patients through a formal satisfaction survey process. The results of the survey are shared throughout the organization. The needs and wants expressed by our patients become our needs and wants, and together we continuously improve our quality of care.

EGH was awarded the 2016 Outstanding Achievement Award by the American College of Surgeons Commission on Cancer. EGH was one of a select group of 20 U.S. accredited cancer programs to receive this national honor for surveys performed January 1 through June 30, 2016.

EGH also became the first hospital in the state of Indiana to dedicate and display the Healer's Touch sculpture that recognizes the compassion, skill, respect, kindness, sincerity, relational experiences and excellence in nursing shown at Elkhart General Hospital every day.

For over 100 years, the highly skilled professionals of EGH have been providing comprehensive medical care to Elkhart and surrounding communities. EGH is a patient-first health care organization whose ongoing mission is to help create healthier communities throughout Michiana.

Elkhart General Hospital's Community Outreach Department has as its primary focus the promotion of health and well-being of individuals and families through education and the early detection and prevention of disease. This focus is facilitated through the promotion and reinforcement of healthy lifestyles and decision making, the prevention of disease development, especially those influenced by lifestyle choices, broad-based health education, health

screenings for early detection in high risk populations, and the detection of actual disease as early as possible for better long term outcomes and quality of life. The Community Outreach programs of Elkhart General Hospital have historically focused on the most vulnerable and underserved populations of Elkhart County, including low-income and working poor, cultural, racial, and minority populations, and youth. Through the years, EGH's Community Outreach Department has initiated, developed, and led long standing, robust, and productive partnerships with multiple like-minded community entities, including public health, education, faith communities, businesses, cultural and minority advocacy, and social services. These partnerships have resulted in vibrant, innovative approaches to long standing as well as newly emerging community health issues, with the ultimate goal of positively impacting the health status and quality of life for all Elkhart County residents.

## Elkhart County Community

Elkhart County, Indiana, was established in 1830, with the original county seat in Dunlap and was later moved to Goshen. Today Elkhart County has three growing cities, four towns, and 16 townships. Elkhart County is located in northern Indiana and borders the state of Michigan. The County is approximately 463.91 square miles in size. Elkhart County lies halfway between Chicago and Cleveland and is located near Interstate 80/90 and the Indiana Toll Road. Elkhart County's service providers have a history of actively forming

partnerships in an effort to meet the health needs of its residents. Elkhart County takes pride in offering its residents a great place to live and continually strives to establish new businesses and provide an entrepreneurial atmosphere.

Elkhart County is Elkhart General Hospital's (EGH) primary service area. According to the 2015 U.S. Census estimates, Elkhart County's population rose to 203, 474. The percentage of persons 65 years and older was estimated at 14%. Census data show 90% of Elkhart County residents are

White persons not of Hispanic descent; 15% are Hispanic/Latino; and 6 % are Black. In 2015, 7% of the total labor force was unemployed. The median household income (2015) of Elkhart County residents was \$47,913. The percentage of persons living in poverty was 14% .

EGH has historically defined its geographic primary market area as Elkhart County. For the purpose of the Community Health Needs Assessment (CHNA), the community served is defined as those persons residing in Elkhart County. As identified though

U.S. Census data, Elkhart County encompasses a mix of cultural, ethnic, and economic populations.

## CHNA Process & Methods

In March through August 2015, work began on gathering the community engagement and feedback essential to the integrity and validity of the CHNA process. Throughout the process, input was actively solicited and secured from persons who hold a broad knowledge of Elkhart County including public health, minority, cultural, and underserved populations; from the community members at large; and from the medical and health services fields. These key informants (n=60) provided input on community health priorities, barriers to accessing care, the impact of social determinants of health, and how to best address wellness in the community and underserved populations.

Additional input on perceived health priorities and barriers to accessing care was solicited from the community at large (n=510) through an online survey that could be accessed directly from home or through the free community service computer access located at Elkhart County Public Libraries. Consideration was given to ensuring the ease of access among Amish, Hispanic Latino, African American, and low-income populations. The survey, consisting of 50 questions, asked community members at large to provide input on access to health care, health status and behaviors, social constraints, and health-related community strengths and opportunities.

## Identifying and Prioritizing Significant Health Needs

In August and September 2015, several community health stakeholder meetings were held to review the results of 2015 Elkhart County CHNA secondary data report, the Key Informant Survey summary, and the community member survey. The purpose of these meetings was to review results and solicit input on Elkhart County community health priorities. These community health stakeholders include members of the Elkhart General Hospital Board of Directors, Beacon Health System leaders, key Elkhart County medical providers, Elkhart County community funders, and Elkhart County schools personnel. Discussion was focused on the priority needs, current dedicated resources for community health needs, resource constraints, and the viability of identifying community health needs for which all funders could collectively support. The following three health needs were selected as EGH 2016-2018 priorities:

- ▶ Access to Health Care/ Uninsured
- ▶ Maternal/Infant Health/ Prenatal Care
- ▶ Obesity/Overweight

## Community Health Needs Not Being Addressed and Rationale

While mental health was identified as a community health need through the key informant survey and community member survey, the Elkhart County suicide rate is lower when compared to St. Joseph County, Indiana as a whole, and the nation. Because of this, other community needs take precedent. Elkhart General Hospital does not intend to include diabetes in its Implementation Strategies due to limited resources to implement and effectively measure

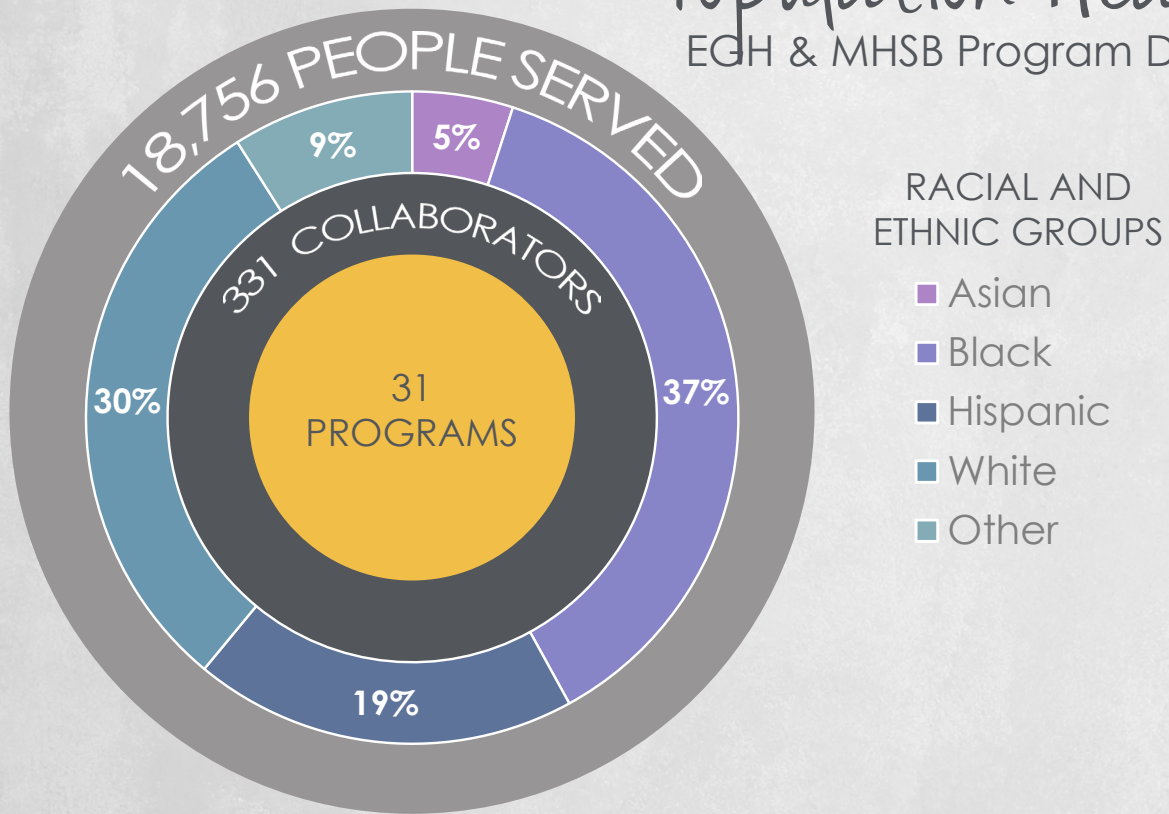
impact. Alzheimer's disease was found to be a potential community health need; however the data may be misleading due to a recent change in reporting. Further investigation is warranted to confirm the validity of this data point, so EGH does not intend to pursue Alzheimer's disease in its Implementation Strategies. Finally, immunizations for school-aged children were identified as a health need due to the number of children being removed from school due to noncompliance with state-mandated immunization schedules. EGH does not intend to make immunization a priority because of the numerous community resources already addressing this need.

## Making the CHNA Report Available

The Elkhart County Community Health Needs Assessment and Implementation Strategies Report were submitted to the Elkhart General Hospital Board of Directors for review and were approved in November 2015. These documents were subsequently made widely available to the community through posting on the Elkhart General Hospital website; through hard copies made available by request; through paper copy made available at EGH Administration; and through email transmission upon request. Elkhart General Hospital staff were also available to discuss the results of the CHNA and the 2015 implementation strategies in community forums requested.

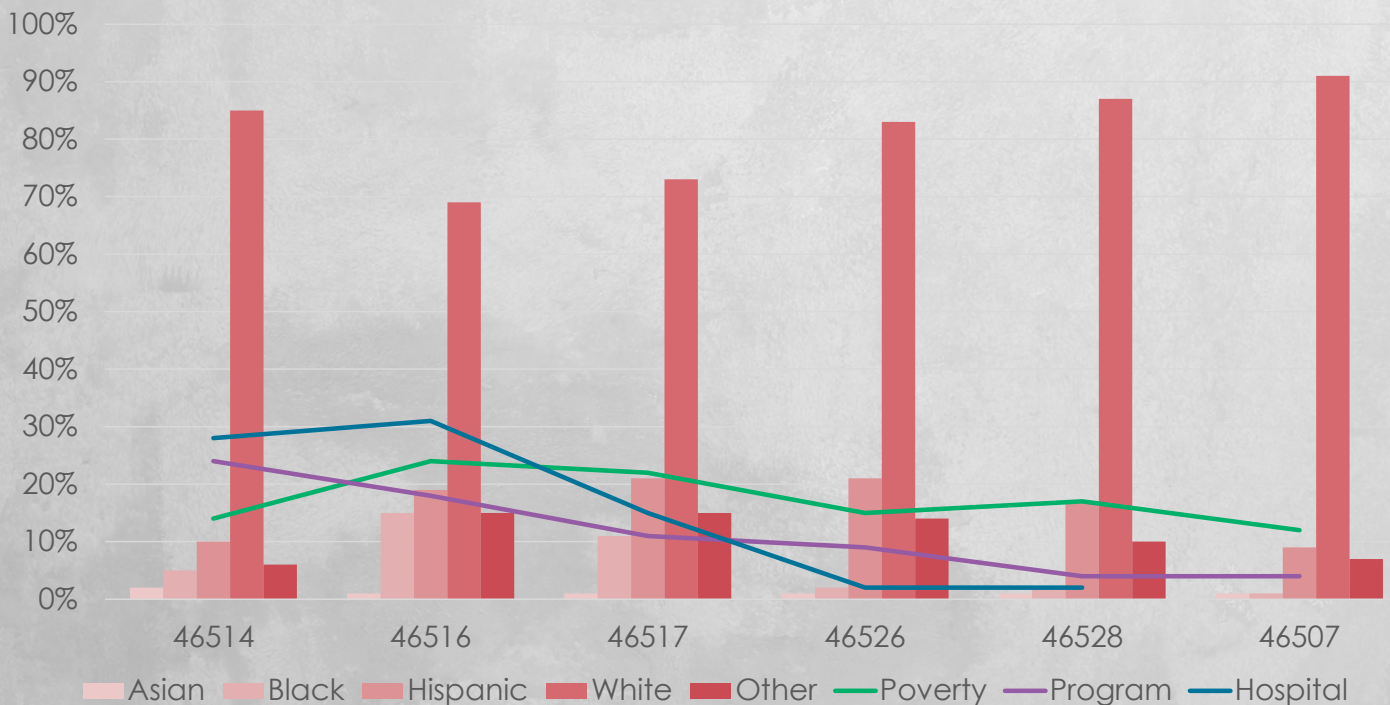
# Population Health

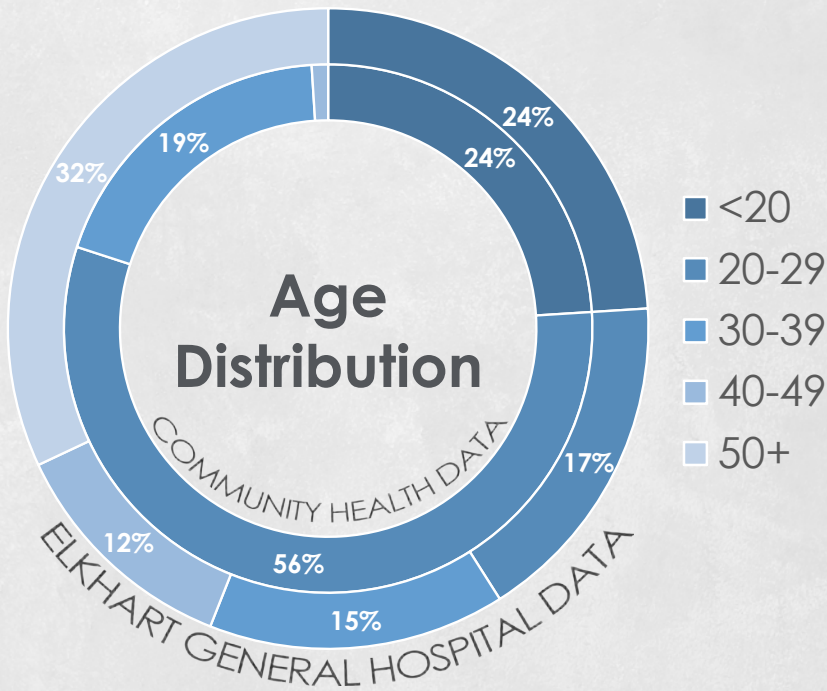
EGH & MHSB Program Data



## Elkhart General Hospital Data

Program Service, Hospital Service, Ethnicity, & Poverty Distribution by Zip Code  
 Source: City-Data.com - Census Estimated Data 2015

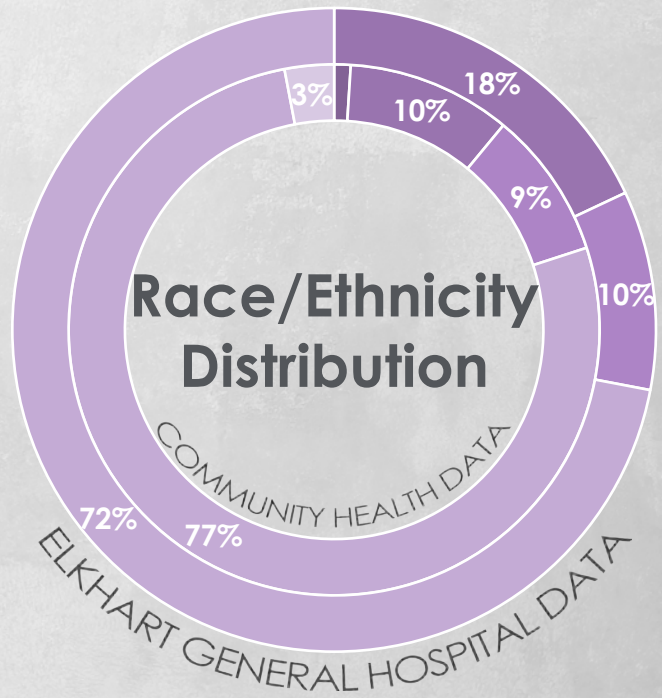




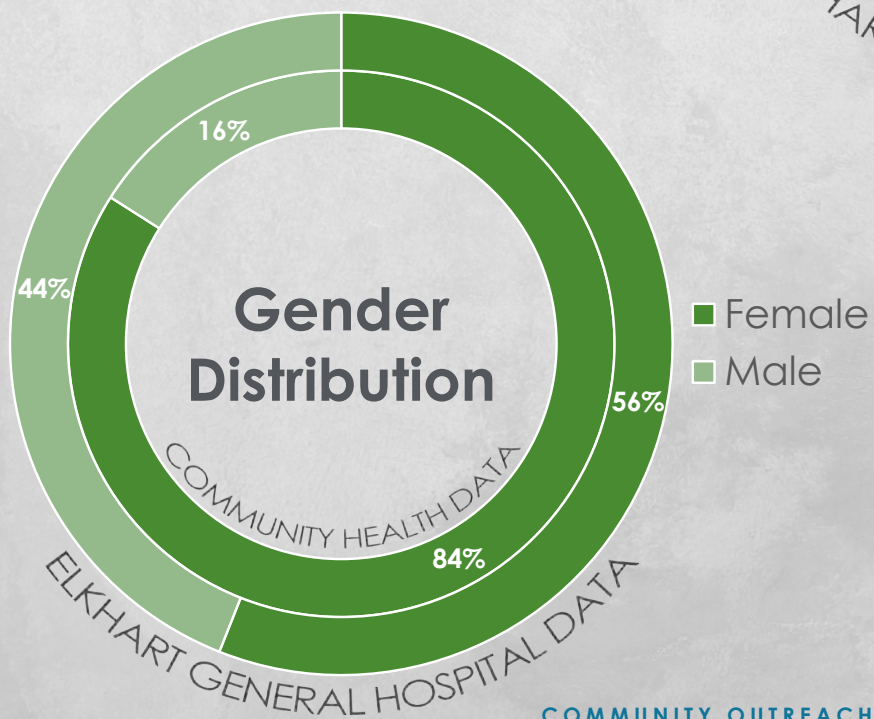
There are distinct differences in age distribution between Elkhart General Hospital and Community Outreach. Community Outreach's clients were largely between 20 and 29 years old (**56%**), while Elkhart General Hospital's clients were more likely to be over 50 years old (**32%**).

Distribution of racial and ethnic backgrounds is fairly comparable, with both Community Outreach and Elkhart General Hospital seeing more white and black clients: **72%** of Elkhart General Hospital clients are white, **18%** are black.

- Asian
- Black
- Hispanic
- White
- Other



Both Community Outreach and Elkhart General Hospital are closely tied along the gender lines. Community Outreach saw far more female clients, **84%**, compared to Elkhart General Hospital's **56%** female clientele.



# Acknowledgements

This report and all of our work in the community would not be possible without the support and effort of our community partners. We truly value the opportunity to continue to build relationships with them, and would like to thank them for all that they do - for the community, and for their collaborative experience.

Beacon Navigators



The Bariatric & Metabolic  
Institute of Elkhart County



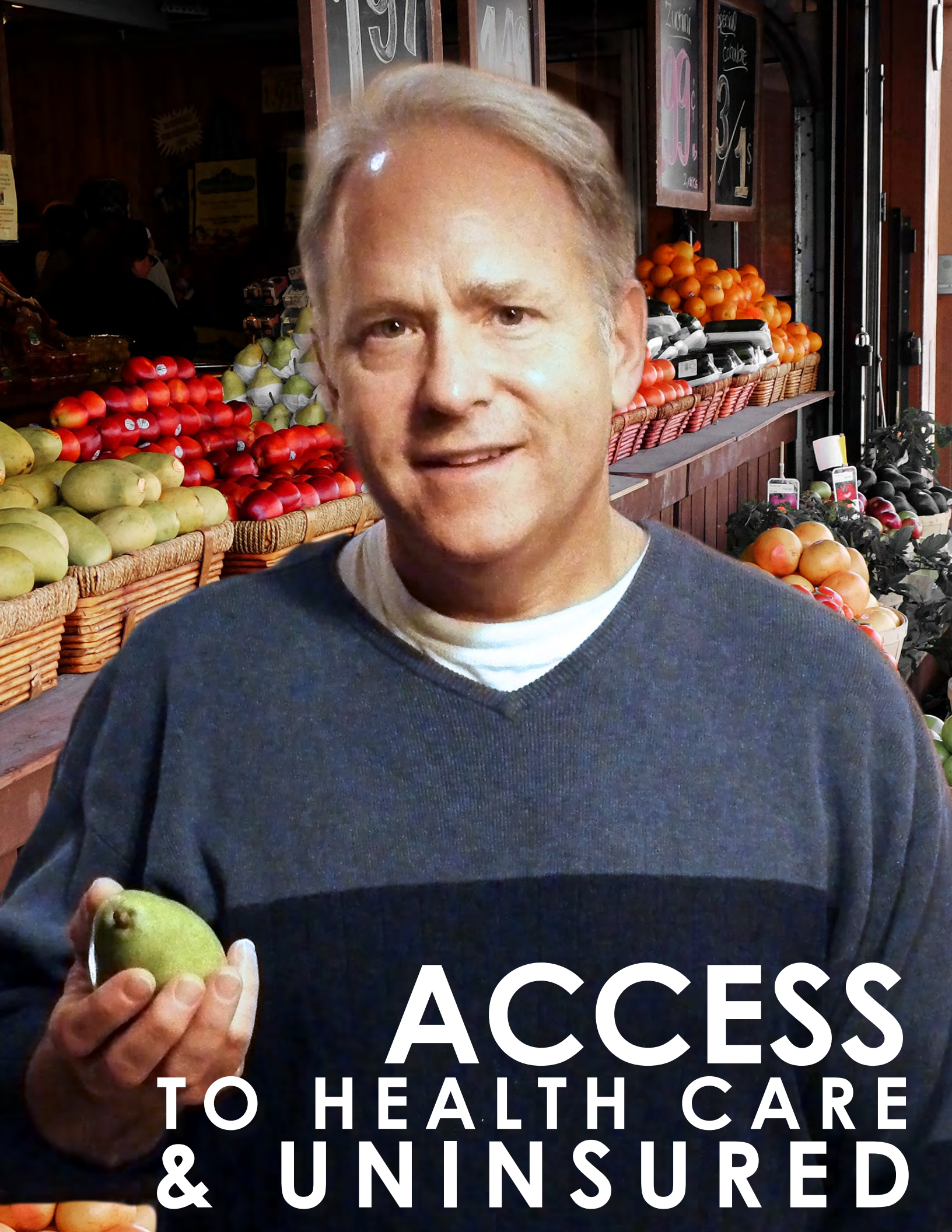
DAME TU MANO



Special thanks to Freepik and [www.flaticon.com](http://www.flaticon.com)

**COMMUNITY OUTREACH**  
[www.beaconhealthsystem.org/chna](http://www.beaconhealthsystem.org/chna)  
574.524.7503 | 574.524.7500





**ACCESS  
TO HEALTH CARE  
& UNINSURED**

# Significant Health Need

Residents of Elkhart County are more likely to be uninsured (20.8%) when compared to St. Joseph County (14.5%), Indiana (14.2%), and the nation (14.8%). The ratio of primary care providers (PCP), dentists, and mental health providers to residents is worse in Elkhart County than in St. Joseph County, all of Indiana, and the national benchmark. Access to health care and access to health coverage continue to be identified as community health priorities in Elkhart County.

**Priority Focus 1:** Ensure all members of the community have access to health insurance

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that apply to this CHNA priority. These predictive analytics suggest targeting specific age groups to improve enrollment in insurance:

### Age 16-29

- ▶ Males of Asian, Hispanic, White, or Other ethnicity/race have a 39% chance of being uninsured; for Black males, the chances are 46%.
- ▶ Hispanic females have 24% chance of being uninsured; Black or other females have a 22% chance of being

uninsured

### Age 29-43

- ▶ Males of Asian, Hispanic, White, or Other ethnicity/race have a 32% chance of being uninsured; for Black males, the chances are 40%.
- ▶ Females of White, Hispanic, or Asian ethnicity/race have 20% chance of being uninsured

### Age 43-60

- ▶ Hispanic patients have a 24% chance of being uninsured; for black males, the chances are 21%



# Program to Address This Need

Goals: ✔ Achieved: 0 ➤ In-Progress: 2

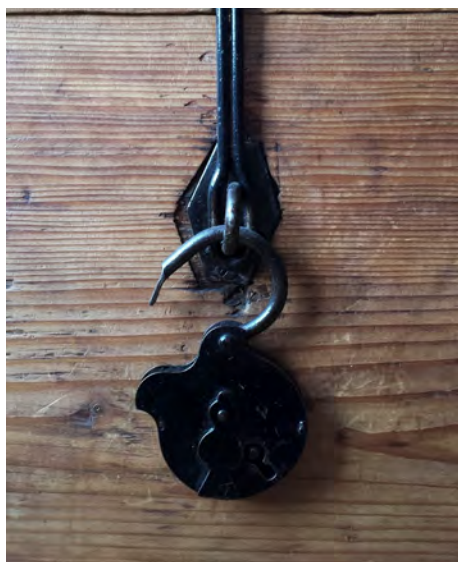
## Beacon Health System Navigators and Covering Kids & Families Partnership

Beacon Health System Navigators provides outreach-based, free enrollment and advocacy services for low-income and/or eligible Elkhart County residents through the Elkhart General Hospital (EGH) health coverage enrollment efforts. Elkhart General Hospital also funds a contracted enrollment Indiana Navigator enrollment position through a collaboration with Covering Kids & Families, an entity of United Health Services. EGH dedicated a full-time equivalent Indiana Navigator position to outreach and enrollment, as well as a pool of additional Indiana Navigator staffing hours dedicated to enrolling eligible Elkhart County residents. EGH heavily promotes enrollment services through robust outreach to target catchments of low-income individuals, including at homeless shelters, workforce development events, job fairs, women's shelter, Title I schools events such as kindergarten round up and school physicals, and through electronic communication with families of schoolchildren through schools' online weekly school newsletters.

### Outcomes

In 2015, EGH assisted 439 Elkhart County residents in applying for health coverage assistance through

the Affordable Care Act, the Healthy Indiana Plan, and Medicaid. In 2016, EGH assisted a total of 866 Elkhart County residents in applying for health coverage assistance, with 322 utilizing the Beacon Navigators and 544 using Covering Kids & Families. Furthermore, a total of 558 "assists" for Elkhart and St. Joseph Counties together occurred with applicants and successful enrollees. Ideally, measurement of progress toward achieving this outcome tracked through numbers of Elkhart County residents who were converted from eligible but uninsured to insured status. In assisting these individuals with coverage application processes, the disposition of the type of coverage



in which the individual ultimately enrolled is unknown, due to a numbers of factors including, among others, the inability to select a specific program at time of appointment, missing or incomplete documentation verification, need to follow up with established clinical or prescription

providers to confirm participation in specific plans, and inability to commit to specific plans due to affordability issues. In addition, as part of their agreement with the Indiana Department of Insurance, Indiana Navigators are advised against collecting information on applicants; therefore, demographic information for 2016 coverage appointments is not available. Beacon Health System's health insurance tracker database has been updated to appropriately track the success of enrollment efforts starting in 2017.

## MOVING FORWARD

EGH data show 1,771 patients enrolled in insurance and 2,266 chose PCPs in 2016, but there has been no way to determine how many of those new enrollees included the 866 individuals helped by Community Outreach's programming. The redefined data collection is going to help measure the anticipated health status of offering these services to the community.

Since wellness begins with having a PCP who gathers baseline clinical data for monitoring improvements or declines in health status, helping individuals choose a PCP is critical for promoting health and wellness. The hospital data highlighted the size of this need compared with the number of uninsured and should be an emphasis over the next two years.

The predictive analytic suggestions provide valuable information for generating strategies to increase both enrollment and PCP selection.

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# MATERNAL/INFANT HEALTH & PRENATAL



# Significant Health Need

Multiple health measures from the 2015 Elkhart County CHNA support the issue of prenatal care coordination as a community health priority. These measures include the reported rates of first trimester entry into prenatal care overall as well as first trimester entry into prenatal care for African American mothers; low birth weight infants; and smoking rates in pregnant women. Research has clearly shown a positive correlation between late entry into prenatal care and adverse birth outcomes. The termination of the County's prenatal care coordination program magnified the urgency of

prioritizing perinatal health care as an EGH health need. To face those challenges and meet this need, Community Health has created this focus area and indicators to assess progress over time.

**Priority Focus 1:** Provide active case management for pregnant mothers during and after pregnancy

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that apply to this CHNA priority. These predictive analytics from EGH data suggest

targeting smoking and Primary Care Provider status to improve Maternal/Infant Health.

### Maternal Charges

➤ Having a PCP correlated with fewer charges by up to \$1,542

### Infant Charges

➤ An infant staying in the NICU was shown to have increased charges of \$3,189 per day

### Birth weight

➤ Mothers who smoked were correlated with a 0.18 kg decrease in infant birth weight

## Program to Address the Need

Goals:  Achieved: 6  In-Progress: 0

### PRENATAL CARE COORDINATION PROGRAM

Prenatal Care Coordination addresses infant mortality by working with many of the most at-risk women in Elkhart County. The program provides support, resources, referrals, and appointments with OB Offices. We address psycho-social issues that affect the pregnant woman, decreasing the likelihood of a low or very low birth weight baby, reducing tobacco use, ensuring prenatal visits and a safe place for baby to sleep. This program uses social workers.

### Outcomes

The Prenatal Care Coordination program reached all its goals. The overarching goal of Prenatal Care

Coordination is for pregnant women to have a healthy pregnancy where they feel supported, educated, assisted, and functional. This applies to the health and wellness of both the child and the mother. In 2016, the percentage of mothers who received prenatal care in the first trimester was 73.7% compared to 73% in 2015. Additionally, of the 308 mothers enrolled, 91 were smokers (29.5%) - 86 of the 91 reduced or quit (94%). Of the 154 live births, 5 were less than 37 weeks (3.24%). There was also a decrease in the percent of infants born to mothers who weighed less than 2500 grams to 3.89% - total of 6 births. The percentage of mothers who were breastfeeding at the hospital at the time of discharge during in 2016 was 84.4%. Mothers who reported practicing safe sleep at time of postpartum encounter was 88%. 100% of all moms are given education; and those not practicing safe sleep are offered more education and a free Pack-N-Play; this is verified through

the Mother-Baby visit. Prenatal Care Coordination would like to have more clients contact them earlier to be assisted with getting into OB care within their first trimester, but that doesn't always happen. This has been a problem for many years.

### MOVING FORWARD

According to EGH data, they are already achieving one IN and Healthy 2020 goal for low birth weight. It is inappropriate to attribute this achievement to one organization, but the fact that Prenatal Care Coordination has achieved all their program goals indicates the extent of their influence on the 66% of in-program mothers, who deliver their babies at EGH.

The predictive analytics also relates improvements in infant health to increasing mothers' selection of a PCP, which further increases the cross-priority need for improving those efforts.



# OVERWEIGHT/ OBESITY

# Significant Health Need

Currently Elkhart General Hospital engages in multiple efforts aimed at addressing obesity. In March 2015, Elkhart's Youth and Community Center, formerly known as the Elkhart YMCA, a magnet health and fitness facility with which EGH has historically partnered with in obesity prevention and reduction initiatives, abruptly announced its imminent closing due to lack of funding for critical infrastructure needs, and other concerns. A regional redevelopment plan unveiled in September 2015 proposes massive changes to the downtown area of Elkhart known as the Market District.

The anticipated impact of the redevelopment of the Elkhart Youth and Community Center is the resurgence in community-based fitness opportunities for Elkhart residents, including seniors,

school-age, disabled, and low-income and minority populations, which is expected to ultimately manifest as reductions in obesity and overweight rates in Elkhart residents. At present, the EGH IS for the CHNA identified health priority of obesity cannot be measured until the planning, review, and favorable award of funding is complete.

**Priority Focus 1:** Obesity Education and Case Management

**Priority Focus 2:** Community Development and Engagement

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that apply to this CHNA priority. These predictive analytics identify specific visits by

gender and ethnicity/race categories needing support to reduce obesity:

### Charges

- ▶ Charges were increased by \$578 for each additional year of age
- ▶ Being male correlated with having charges \$6,392 higher than females

### Body Mass Index

- ▶ Black patients were correlated with having a BMI 2.43 units higher than White patients
- ▶ White patients were correlated with having a BMI 3.74 units higher than Hispanic patients
- ▶ Female patients were correlated with having a BMI 2.33 units higher than male patients
- ▶ BMI decreased by 0.13 units for each additional year of age.





# Programs to Address This Need

Goals: ✔ Achieved: 1 ➤ In-Progress: 3

## BARIATRIC AND METABOLIC INSTITUTE

The Bariatric and Metabolic Institute provides free behavioral classes to program participants every three weeks with the classes focusing on various topics pertaining to behavioral modification to help with weight loss. Topics included: cravings, goal setting and motivation, emotional eating, getting support, identifying and changing unhealthy eating habits, how the media affects our body image, managing stress, mindful eating, positive thinking, preventing relapse, and cognitive restructuring.

### Outcome

Of the total 446 patients starting the New Directions program in 2015, 137 participants, or 30.7%, completed at least 12 weeks in the program. The significant percentage of program attrition reinforces the challenges of long term weight management. Average BMI rates for 137 persons who completed the program through twelve weeks, with the inclusion of the behavior education sessions as part of their plan compliance, show the following outcomes:

Total Patients:	Average BMI:
137	Start of 12 week: 42.3
137	12 week: 38.3
95	24 week: 35.6
57	36 week: 34.1
28	48 week: 33.3

Total number of patients who started medical weight loss for 2016 was 469.

Average BMI did change much from start BMI (45.4) to 48 weeks BMI (45.2).

## DAME TU MANO (“GIVE ME YOUR HAND”)

Dame Tu Mano (DTM) is Elkhart General Hospital’s Hispanic Latino health improvement outreach program. The program’s focus is a broad-based community health empowerment effort to address the health needs of the nearly 31,000 Hispanic Latinos in Elkhart



County. To address obesity Dame Tu Mano provides information, resources, and referrals on obesity, weight loss, and nutrition for the Hispanic and Latino communities. Health promotion and educational messages are offered via print, radio, and social media, and through educational summits and community screenings. In addition, daily (Monday through Friday) radio segments on two Spanish language radio stations (LaMejor – Goshen; Sabor Latino – SB) provide info on various health issues/topics. Combined listenership is 40,000 Hispanic Latinos in Michiana region.

### Outcome

Daily segments result in numerous

phone calls, requests, and social media reaches. There are 1,490 followers on the DTM Facebook page, 815 assistance request calls were made to DTM phone line, and 431 packets/resources were mailed to address health-related topics. There are also ongoing, interactive partnerships with many organizations including Heart City Health Center, La Mejor and Sabor Latino radio stations, and multiple Hispanic latino-owned businesses. Pre-/post survey data for participants (n=25) showed the following changes after six months in the program:

- Mixed results in establishing regular exercise habits
- More days spent exercising at least 30 minutes to raise heart rate
- Daily servings of vegetable and fruit decreased
- Consumed fewer daily servings of high fat food
- Fewer people overate because of stress

## MOVING FORWARD

The program data from 2016 shows the difficulty in getting clients engaged in long-term weight loss. It is also difficult to accurately portray the full extent of the need because of inconsistent BMI reporting across age categories in the hospital data. In order to achieve definitive outcomes and impact over time, strategies should be re-evaluated. It may also be helpful to choose specific target audiences to focus upon—for example those in the >50 age group, who appear to represent the bulk of the obesity visits to EGH.

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Within each priority the following is included:

- Significant Health Need
- Predictive Analytics
- Program to Address the Need
- Outcome(s)

Memorial Hospital of South Bend

# COMMUNITY HEALTH NEEDS ASSESSMENT



# REPORT

# Introduction

Memorial Hospital is a non-profit, community-owned health care provider located in St. Joseph County, IN that has been serving the local diverse population since 1894. As reflected in our mission statement, Memorial is dedicated to improving the well-being for the people of our community, with well-being defined broadly across five dimensions: physical/cognitive, social-emotional, financial, purpose, and community. This holistic approach has made it possible for the hospital to positively affect thousands of families and individuals across the lifespan in our community by intentionally building a culture of continuous improvement, innovation, and community service. MHSB is not only recognized nationally as a leader

in providing high quality care, but also as a leader offering new approaches to patient satisfaction and customer service that make us distinctive. Memorial Health and Lifestyle Center as well as HealthWorks! Kids' Museum are also part of MHSB's extended system.

Various groups have recognized these competencies in recent years, such as the American Hospital Association's Foster G. McGaw Prize for Excellence in Community Services, the VHA Leadership Award in 2006, citation as a Thomas Reuter's Top 100 Hospital, Jackson Health Review's top ten Hospital's Charitable Service Award, and membership in Health Grade's Top 5% Safest Hospitals.

In addition to St. Joseph County, MHSB's service area includes patients

from surrounding counties in Indiana and Michigan. The pediatric emergency transport program serves 18 counties and our MedFlight helicopter covers communities within a 150-mile radius.

For more than 20 years, MHSB has been reinvesting 10% of its annual bottom-line into programs and services that support social service agencies and community organizations serving at-risk and vulnerable families and children. The Community Health Enhancement (CHE) department is responsible for executing these community outreach efforts, which support a wide array of effective, evidence-based and fiscally responsible programs targeting medically underserved, disadvantaged and minority populations in St. Joseph County.

## St. Joseph County Community

Established in 1830, SJC, Indiana has become the fourth largest county in the state of Indiana. The county spans 467 square miles, which includes a comfortable mix of rural cultural heritage and urban amenities. SJC is also the regional center for higher education, with more than eight colleges and universities, including but not limited to the University of Notre Dame, Indiana University South Bend, Ivy Tech Community College, Purdue University, Holy Cross College, Bethel College and St. Mary's College

The heart of MHSB is located within a mile of the University of Notre Dame, ten miles south of the Michigan state line, and forty miles east of Lake Michigan. Through the years the environment of South Bend, the largest city in St. Joseph County, has changed from a focus on manufacturing (Studebaker, Bosch, and Uniroyal) to health, education and customer services.

According to the U.S. Census, the

population for St Joseph County in 2015 was estimated at 268,441 individuals. In 2015 the racial statistics in the County are 81% Caucasians, 13% African America, 8% Hispanic and 2% Asian. As expected, with an area well-saturated with post-secondary educational institutions, the county has higher than would be projected educational levels; 88% of the population are high school graduates, and 27% have a bachelor's degree or higher. The median household income was \$46,881; persons below the poverty level accounted for 17 % of the population; while the poverty rate among children under 18 was 25%. This need is even more pronounced in South Bend, the county seat where the median household income in 2015 was estimated at \$34,523 with 28% of the residents living below the poverty level.

The population mix in surrounding counties is diverse and includes large numbers of first-generation European, African, Middle Eastern immigrants,

African Americans, Asians, Hispanics, and Amish. MHSB makes a special effort to focus on those populations with the highest unmet needs, specifically those persons who are known as vulnerable, through chronic diseases, lower-income and poverty, members of a minority population and/or the uninsured.

### CHNA Process & Methods

Community engagement and feedback are essential to the integrity and validity of the SJC CHNA process. Therefore, input was actively solicited and secured from three sources:

- ▶ Key informants (n=44) who hold a broad knowledge of the interests of SJC, including public health, and minority, cultural, and underserved populations
- ▶ Community members at large

(n=543) representing 267,618 SJC residents

- ▶ Community Health Advisory Council representing health services, k-12 and higher education, faith-based, political, and public and social services fields.

The first stage of assessment was seeking to gather input from key informants. Organizations invited to provide input included the following: Samaritan Counseling Center; MDWise, a Medicaid Managed Care entity; Harper Cancer Research Institute University of Notre Dame; Junior League of South Bend; Bridges Out of Poverty; City of Mishawaka Fire Department; Memorial Family Residency Program; YMCA of Michiana; Hope Ministries, which serves homeless families; Goodwill Industries; Imani Unidad, a not-for-profit organization providing counseling to minorities and persons with HIV; Saint Mary's College; Bike Michiana Coalition; and Healthy Families of St. Joseph County.

Second, we conducted an online CHNA survey in March through August 2015, which was also available at public libraries, apartment facilities, and churches. The survey, consisting of 50 questions, asked community members at large to provide input on access to health care, health status and behaviors, social constraints, and health-related community strengths and opportunities. Results provided insight in the following four areas: barriers to accessing care, the impact of social determinants of health, resource utilization and underserved populations.

Third, in September and October 2015, advisory council meetings were held to review the results of Holleran's 2015 St. Joseph County CHNA secondary data report, the Key Informant Survey summary, and the community member survey. The purpose of these meetings was to review results and solicit their

input on SJC community health priorities. These community health stakeholders included members of the Memorial Hospital South Bend Board of Directors, Beacon Health System leaders, medical providers, community program directors and managers, South Bend Community School Corporation personnel, and higher education personnel. Discussion was focused on the priority needs, current dedicated resources for community health needs, resource constraints, and the viability of identifying community health needs that could be collectively supported.

### IDENTIFYING HEALTH NEEDS

After collecting all the primary data, we created a Priority Setting Worksheet that also included secondary data depicting population and household statistics, education, and economic measures, morbidity and mortality rates, disease incidence rates, and other health statistics. All of the data was inserted into separate columns and assigned unique weighted percentages based on several factors (e.g., sample size): Key Informants (20%); Community Members at Large (40%); Advisory Council (20%); Secondary Data (20%). Each row in the worksheet represented the 19 potential health and social issues listed in the CHNA. We then tabulated a total score for each issue (ranging from 0 -100%). The following six issues emerged with a score greater than 80% – and were selected as MHSB's 2016-2018 priorities. The first three were also designated priorities from 2013 through 2015.

- ▶ Access to Health Care/ Uninsured
- ▶ Diabetes
- ▶ Maternal/Infant Health/Prenatal Care
- ▶ Mental Health/Suicide
- ▶ Obesity/Overweight
- ▶ Violence/Safety/Trauma

### COMMUNITY HEALTH NEEDS NOT BEING ADDRESSED AND

### RATIONALE

Of the remaining thirteen (13) issues, nine (9) were scored at zero and four (4) cancer, education, poverty, and substance/ alcohol abuse were scored from forty (40) to sixty (60) percent. MHSB does not intend to include them in its Implementation Strategy due to other community health needs taking precedent, limited resources, and the recognition that these needs are being addressed by other organizations within the community.

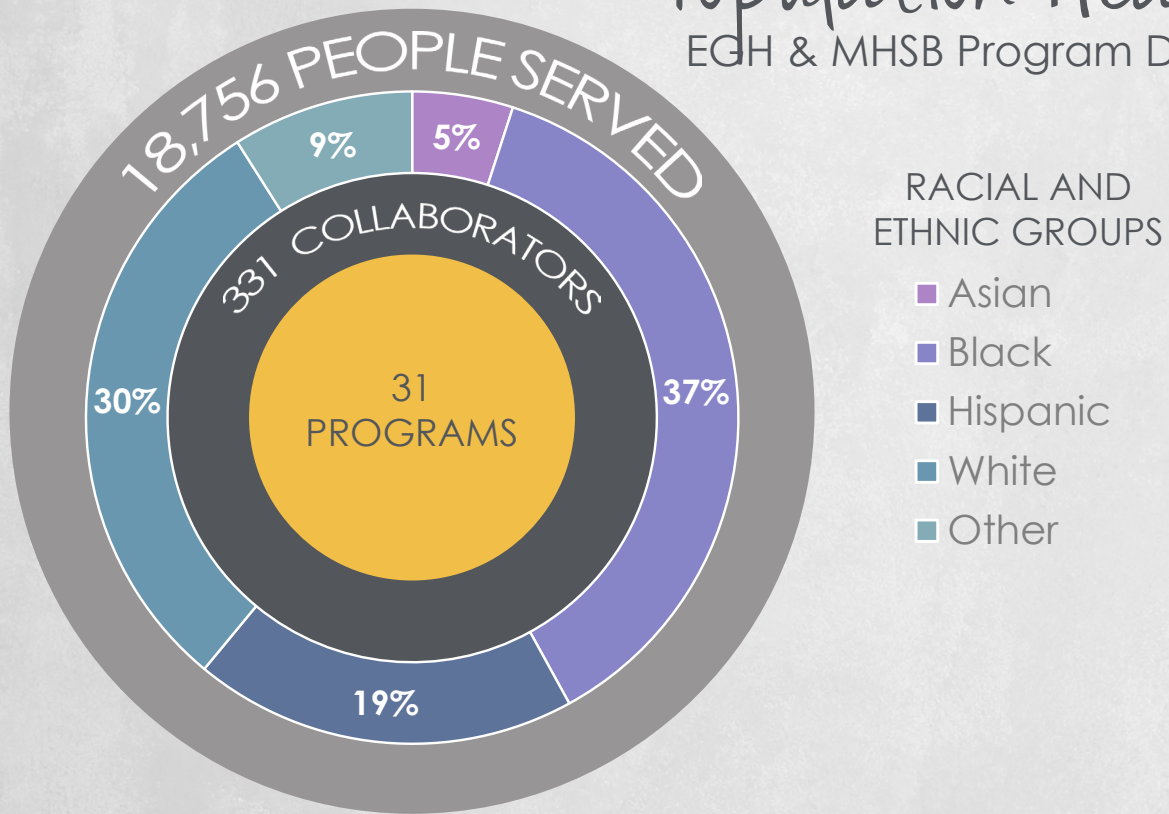
## Making the CHNA Report Available

In 2015 the St. Joseph County Community Health Needs Assessment and Implementation Strategies Report were submitted to the Memorial Hospital South Bend Board of Directors for review and were approved in November 2015. The CHNA results were made widely available by posting them on MHSB's website <https://beaconhealthsystem.org> (formerly <https://qualityoflife.org>) and attainable in paper-copy upon request. It was subsequently made widely available to the community in the following ways: hard copies were made available for MHSB Administration, email transmissions were completed upon request, and it was also presented and available to St. Joseph County's Health Department Board. MHSB staff were also available to discuss the results of the CHNA and the 2015 implementation strategies in community forums.

Community Health Enhancement will continue to lead and engage in active community dialogues to measure and ensure movement toward goals as MHSB's Implementation Strategy is executed. We also intend to continue helping support other community needs that emerge from key community leaders and stakeholders, community members at large, and prevalence of health indicators.

# Population Health

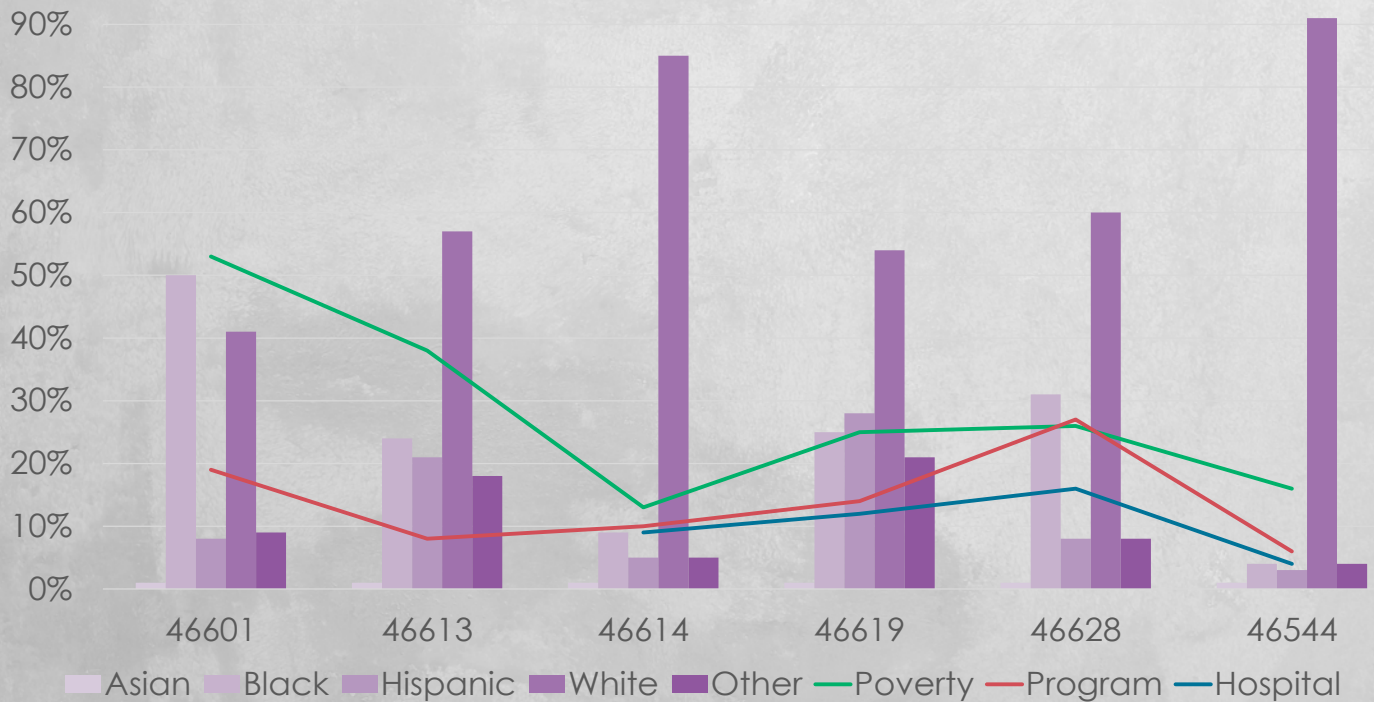
EGH & MHSB Program Data

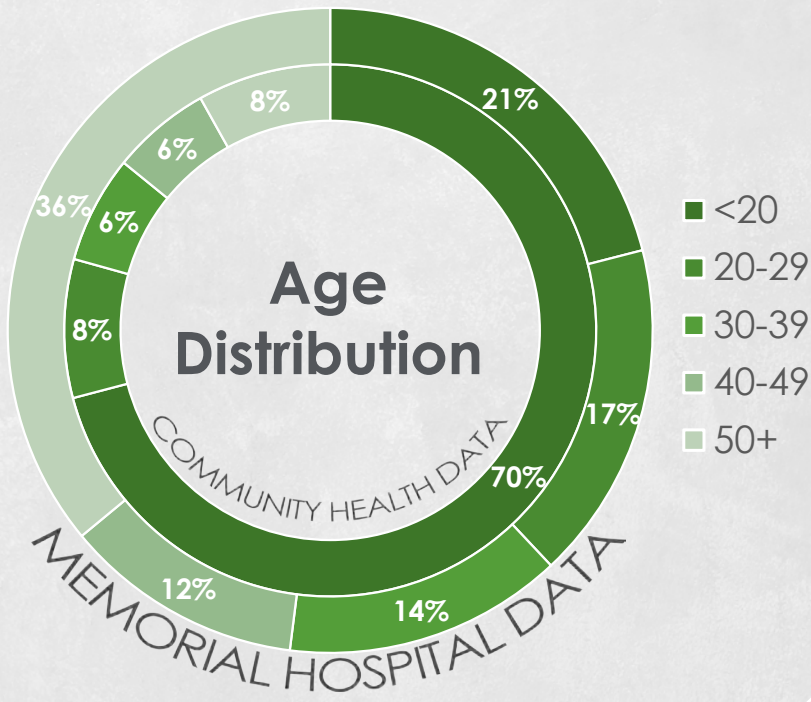


## Memorial Hospital Data

Program Service, Hospital Service, Ethnicity, & Poverty Distribution by Zip Code

Source: City-Data.com - Census Estimated Data 2015

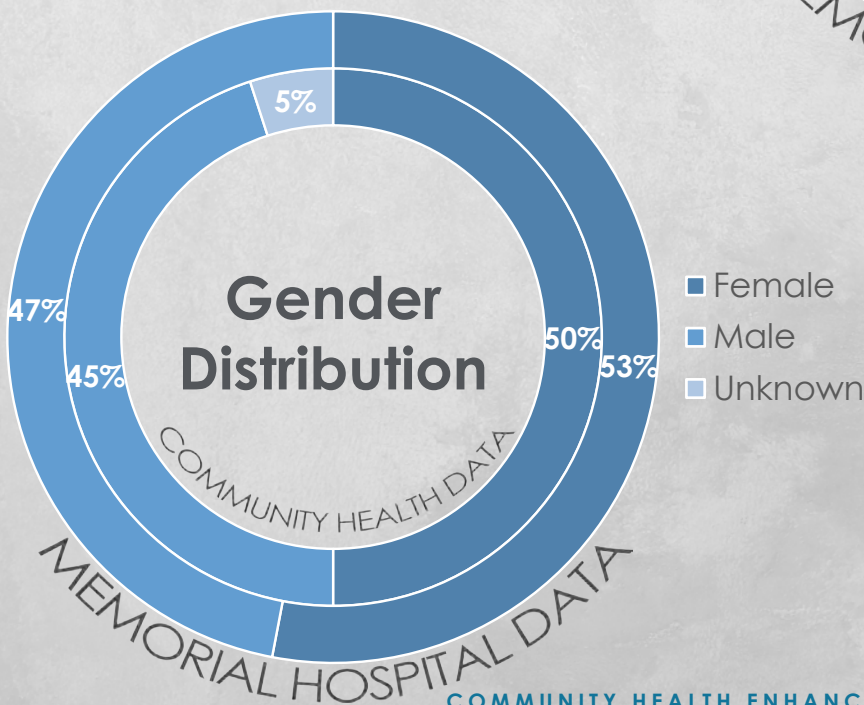
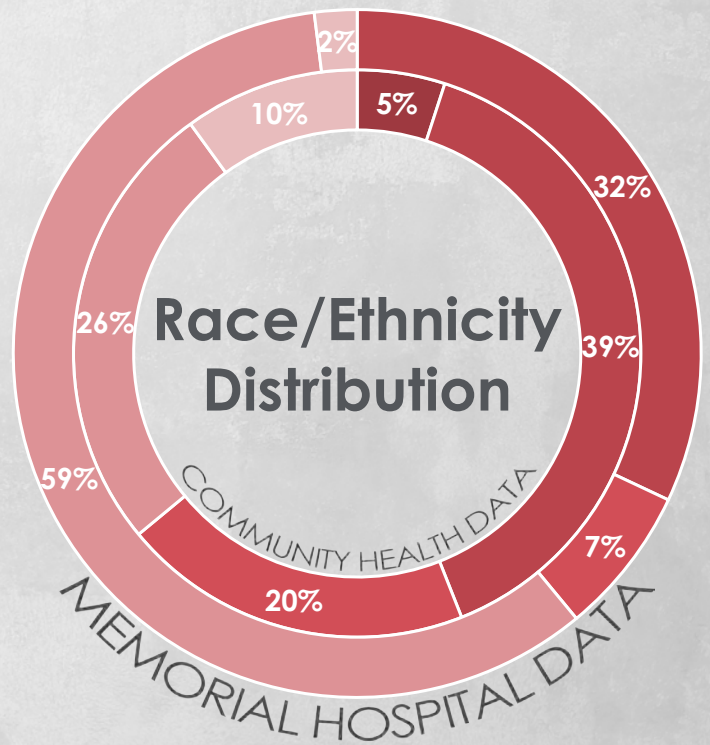




There are distinct differences in age distribution between Memorial Hospital and Community Health. Community Health's clients were largely under 20 years old (**70%**), while Memorial Hospital's clients were more likely to be over 50 years old (**36%**).

Distribution of racial and ethnic backgrounds is fairly comparable, with both Community Health and Memorial Hospital seeing more white and black clients: **59%** of Memorial Hospital clients are white, **32%** are black.

- Asian
- Black
- Hispanic
- White
- Other



Both Community Health and Memorial Hospital are closely tied along the gender lines. Community Health saw slightly fewer female clients, **50%**, compared to Memorial Hospital's **53%** female clientele.

# Acknowledgements

This report and all of our work in the community would not be possible without the support and effort of our community partners. We truly value the opportunity to continue to build relationships with them, and would like to thank them for all that they do - for the community, and for their collaborative experience.



Leeper Park/Madison  
Primary Center

St Adalbert's Catholic  
School



Beacon Navigators

Friends of the Juvenile  
Justice Center







**ACCESS  
TO HEALTH CARE  
& UNINSURED**

# Significant Health Need

While the arrival of the Affordable Care Act (ACA) provided many St. Joseph County (SJC) residents with needed health coverage, a large segment of our county continues to fall through the cracks for myriad reasons including ineligibility due to lack of legal residency status, the unaffordability of Indiana ACA Marketplace programs for eligible persons, and the increasing trend of high-deductible employer-sponsored plans that are creating delays or barriers for insured persons to utilize health care at an appropriate time.

MHSB data from January through December 2016 indicate more than 5500 patients are uninsured, but those unsure or without a Primary

Care Provider (PCP) outnumber the uninsured by almost 2:1, which hinders the completion of routine wellness visits and could lead to higher demand for ED services when ill. This confirms the need for prioritizing Access to Care among their patients and in the community.

**Priority Focus 1:** Ensure access to health insurance, education and self-management skills

**Priority Focus 2:** Provide screenings and education

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that

apply to this CHNA priority. These predictive analytics suggest programs target specific age groups, regardless of race/ethnicity to improve Access to Care:

Age 19-31

► Males of Black, Hispanic, or Other ethnicity/race have a 52% chance of being uninsured; for Asian or White males, the chances are 31%.

► Females age 19-31 have 20-27% chance of being uninsured, depending on race/ethnicity

Age 31-46

► Any male has a 40% chance of being uninsured; for any female, chances are 20-21%

# Programs to Address the Need

Goals:  Achieved: 4  In-Progress: 5

## AGING IN PLACE (AIP)

AIP programming helps seniors in low-income housing remain productively and successfully independent by providing them with caring and holistic services so they can continue to be a rich part of the community and society. The AIP program provides a variety of services that support Access to Care, including: health oversight, medication adherence, assistance in connecting participants to a primary care physician and other health resources. The program is hosted at three South Bend sites (Robertson's Apartments, Monroe Circle Community Center, Heritage Place at LaSalle Square).

## Outcomes

Pre- and post-Intervention packets consisting of a demographic questionnaire and Morisky Medication Adherence Scale were distributed to participants in December of 2015 and August 2016. In addition, attendance logs from November 2015 through October 2016 were reviewed to assess health education participation in the following activities:

- Physical Health Seminars
- Nurse Visits
- eSeniorCare Medical Workshops

During that time period, 77% of the 115 AIP residents reported having a primary care physician compared to 71% in 2014 (no data from 2015). Additionally, 48% were engaged in health education services, a 15%

increase from the previous year. The activities/events listed above were all provided on a weekly basis, with the exception of the physical health seminars which occurred monthly. An average of six residents participated in the physical health seminars consistently. Nursing visits that addressed health concerns and blood pressure checks on average could expect ten residents. Every week from November 2015 through August 2016, the University of Notre Dame hosted eSeniorCare medical workshops to help residents electronically monitor their medication adherence. Twenty-six (26) participants attended those workshops where they were trained on the importance of using the adherence component of the application on their tablets and setting health goals.

## BEACON HEALTH SYSTEM NAVIGATORS and COVERING KIDS & FAMILIES PARTNERSHIP

In 2016, Beacon Health System (BHS) and Covering Kids & Families of North Central Indiana (CKF), an entity of United Health Services, developed a plan to provide access to coverage for a wider range of potential patients prior to presenting at any Beacon facility. Memorial Hospital of South Bend's Implementation Strategy for addressing access to health coverage is to continue to provide outreach-based, free enrollment and advocacy services for low-income and/or eligible St. Joseph County (SJC) residents. CKF heavily promoted SJC enrollment services through robust outreach to target catchments of low-income individuals. In-reach efforts included enrollment awareness and health coverage education at multiple access points throughout BHS overall, including the emergency room, patient accounts, health information management, cashier's office, social services, physicians' practices, and other sites. Due to our agreement with the Indiana Department of Insurance, Indiana Navigators were advised against collecting additional information (e.g., demographics) on applicants.

### Outcomes

In 2016, Beacon/CKF assisted 709 St. Joseph County residents in applying for health coverage assistance through the Affordable Care Act, the Healthy Indiana Plan, and Medicaid. In 2015, this figure was 242. Furthermore, a total of 558 "assists" for Elkhart and St. Joseph Counties together occurred with

applicants and successful enrollees. Although we provided assistance to these individuals during the application processes, we were unable to verify whether an individual ultimately enrolled due to such factors as the inability to select a specific program at time of appointment, missing or incomplete documentation verification, need to follow up with established clinical or prescription providers to confirm participation in specific plans, and inability to commit to specific plans due to affordability issues. Beacon Health System's health insurance tracker database has been updated to appropriately track the success of enrollment efforts starting in 2017.

Now the BHS/CKF threefold access to coverage process includes education about health coverage, how to get it and how to use it. As a result, these steps will maximize the number of individuals who desire healthcare and treatment to have approved insurance in place, thereby reducing charity care and mitigating losses.

While this is a time consuming and specialized process, requiring a variety of specific actions, it is clear that a large number of uninsured will qualify and will use their coverage once educated, enrolled and approved. Without this assistance, the enrollment and approval process is laborious, confusing and difficult to manage through multiple stages that require resources to consistently monitor.

## ENFOCUS ASTHMA PILOT

The South Bend Fire/Emergency Medical Services (EMS) Department and enFocus identified and studied an innovative response to frequent but unnecessary utilizers of the health system known as Mobile Integrated Healthcare (MIH). MIH is used by communities across the U.S. to leverage

existing EMS infrastructure and extend care into patients' homes by proactively coaching patients on managing their chronic health conditions. This pilot with Beacon Health System specifically aims to address the inaccessibility of healthcare among low-income, at-risk residents of South Bend, who suffer from asthma and other respiratory conditions, and disproportionately call paramedics to administer bronchodilator medications. The program supports the training of a Paramedic to proactively engage patients, discuss personal healthcare plans, provide navigation to physical health resources including United Health Services, and coach self-management to prevent future exacerbations and the need for emergency intervention.

### Outcomes

The target population was identified through data analysis of South Bend Fire/EMS Department's run report information. Results showed bronchodilators make up 26% of all medications administered by EMS during ambulatory rides indicating a disproportionate number of incidents related to respiratory distress. When the location of incidents related to bronchodilators was geospatially mapped, it was found there are hotspots of bronchodilator administration on the West and South sides of South Bend, particularly impoverished areas of South Bend. Through this analysis, the population we aim to serve lives in the West or South sides of South Bend and suffers from a chronic respiratory disease including COPD and asthma. Once enrollment begins, criteria will be linked to multiple utilizations of emergency services (at least twice in a 6-month period) due to a chronic respiratory disease, including COPD and asthma.

A community paramedic has just completed training offered by the Hennepin Technical College

Community Paramedic Program. This 6-month online course is recognized by Minnesota State Government as proper certification and training of community paramedic. No other state government has approved such an innovative course.

Over the next 12 months, the plan is for the paramedic to provide monthly home visits for up to 40 individuals suffering from respiratory issues that require bronchodilator medication and have a history of over-utilizing emergency services. These home visits, paired with increased education and local healthcare navigation, are expected to stabilize health indicators such as expiratory air peak flow and shortness of breath, as well as increase insurance coverage rates, increase the number of patients enrolled with a primary care physician (PCP), and decrease the number of requests for emergency medical services (EMS) related to non-urgent respiratory distress issues.

## NORTH CENTRAL INDIANA SICKLE CELL INITIATIVE (NCISCI)

This initiative raises awareness of sickle cell disease and trait through education and screening that help reduce the incidence of this painful and sometimes deadly disease. Both the Health Coordinator and Educator provide newborn screening follow-ups, referrals, counseling sessions, home and clinic visits with families on additional topics such as, the dangers of secondhand smoke and

getting insurance. Care coordination with school nurses, families, coaches, students, pediatricians, and hematologists is also provided for the purpose of ensuring individuals with sickle cell disease become supported by a continuum of care.

## Outcome

The total number of families and individuals who received case management, counseling, education, and/or testing was 3,329. Additionally, radio broadcasting offered education to a broader audience of 10,000 listeners. This year a tracking system was also developed and implemented for sickle cell clients entering the hospital to ensure clients' needs are met and optimal service is provided. The NCISCI further works with local agencies and universities to plan and execute conferences. In 2016, conferences were held in Elkhart and Lake Counties. In addition to these individual program outcomes, Community Health has been able to scale its work toward a larger audience. The NCISCI is in the process of increasing its educational sessions and sickle cell trait testing opportunities to St. Joseph County and 29 surrounding counties. Planning for grand rounds in Memorial Hospital of South Bend and a conference in Allen County is underway and will take place in 2017.

## MOVING FORWARD

MHSB data shows 1113 patients enrolled in insurance and 1448 chose PCPs in 2016, but there has been no way to determine how many of those new enrollees included the 709

individuals helped by Community Health's programming. New data collection methods implemented in 2017 should help more accurately measure the effectiveness of their efforts. If effective data tracking methods are maintained regularly, they should yield better outcomes in the future.

Since wellness begins with having a PCP gather baseline clinical data for monitoring improvements or declines in health status, helping individuals choose a PCP is critical for promoting health and wellness. The hospital data highlighted the size of this need compared with the number of uninsured and should be an emphasis over the next two years.

With the predictive analytic suggestions provided, it is possible to generate innovative strategies for increasing both enrollment and PCP selection across all of these programs. In fact, the diverse programming described here actually opens a wider door of access to potential Access to Care clients. For example, when the enFocus pilot obtains the funding needed to provide care to residents with asthma, they will spend more time in homes talking with family members and can inquire about PCP and insurance connections. The same potential exists with Aging in Place, which regularly operates in several apartment buildings where casual conversations by program directors can open the door for inquiry into whether these needs exist. Wherever relationships are already established and communication networks exist individually or within community groups, there is an opportunity to dialogue and encourage people to make decisions about insurance and PCP connections.

# DIABETES



# Significant Health Need

Results from the key informant survey show that in both Elkhart and St. Joseph counties, the fourth most pressing health concern is diabetes. Data shows 20% of SJC respondents reported having been diagnosed with diabetes, compared to fewer than 8% in Elkhart County. In SJC the percentage of respondents with diabetes, pre-diabetes, or gestational diabetes has increased from 2012 community member survey responses. Approximately 49% of diabetic respondents in SJC maintain an A1C level of 7% or below, compared with 37% in Elkhart County. To face

those challenges and meet this need, Community Health Enhancement has created these focus areas and indicators to assess progress over time.

**Priority Focus 1:** Diabetes disease management

**Priority Focus 2:** Diabetes prevention

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that apply to this CHNA priority. These predictive analytics suggest targeting

specific demographic factors to improve care for diabetic visits:

- Each year of age increased charges by \$334
- Each Body Mass Index unit increased charges by \$276
- Male charges on average were \$2,899 higher than females
- Males are 1.22 times more likely to have complications than females
- Blacks are 1.21 times more likely to have complications than Whites

# Programs to Address the Need

Goals:  Achieved: 3  In-Progress: 4

## HEALTHY DIABETICS (HD)

The program purpose is to reduce hospitalization and teach self-management skills to high risk clients who suffer from diabetes. The program focuses on behavior changes and is taught by community health workers (CHW) using culturally relevant information to enhance the client's knowledge. The community health workers provide case management, utilize hands-on teaching techniques, and focus on establishing a trusting relationship with clients and their families. HD has also partnered with the Food Bank of Northern Indiana to reduce food insecurities by offering two cooking demonstration sessions per month to its clients. The amount of face-to-face contact between the

CHW and a client helped prove that care coordination reduces the need for hospitalizations in the high risk population served by the program.

Healthy Diabetics applied for and was approved by the National American Diabetes Association to be recognized and certified as the only diabetes program in the country that includes CHWs as part of the continuum of care. In 2016, the program helped diabetics at two different locations: patients at Centennial clinic, a Beacon Medical Group site; other clients came to their HD clinic on Memorial Hospital's campus.

during the first six to nine months in the program was effective in helping lower HbA1c levels in high risk clients who enter with scores greater than 9.0. Paired-samples t-tests for each site supported this change by showing the decreases were statistically significant at both locations.

To determine if these lower scores were maintained or decreased even further over time, a repeated measures ANOVA analysis of mean scores from all clients with initial scores and three in program tests (n=142) showed stability across time and this trend existed at both locations.

The program also achieved its second goal by helping clients (regardless of insurance status) reduce ED visits and charges. Compared with clients' total ED visits and charges for the year prior to entering the program, post ED visits for the total sample

## Outcomes

The program met the goal of lowering HbA1c levels at both locations. Results suggest work

from both sites dropped by 81.6%; ED charges decreased by 88.6%. Both bad debt and charity write-offs associated with ED charges dropped by 97.7%.

## HD DIABETES PREVENTION PROGRAM

This program is based on the Center for Disease Control’s model of helping individuals avoid early onset of diabetes.

### Outcomes

A Diabetes Prevention Program was developed and aired on the Spanish radio station Sabor Latino every Friday over a two month span. The audience participated by phone; information was not collected to determine whether outcomes were met. Other programs in a classroom setting were provided for English speaking clients. All of the participants in the program reported exercising 150 minutes per week. Two months of operation did not lend enough time to achieve outcomes. Overall, if the program were to continue it would be on target for meeting objectives.

## YMCA-DIABETES PREVENTION PROGRAM (DPP)

The YMCA City of South Bend’s Diabetes Prevention Program (DPP) helps those at high risk for developing type-2 diabetes (i.e., overweight with pre-diabetic conditions) to adopt and maintain more healthy lifestyle habits, and prevent the onset of the disease. The YMCA’s DPP is part

of a four-year partnership with the Center for Disease Control’s National Diabetes Prevention Program, and is considered a national leader in the effort to combat this growing epidemic and curb the devastating effects that diabetes is having on individuals and our country as a whole.

### Outcomes

Forty-two percent of participants are reaching their goal of 150 minutes of activity per week. There are 10 of the 45 participants who have not reached session 5, where physical activity is introduced as part of the program. They currently have 6 of 45 (13%) participants who have reached their 7% weight loss goal. 27 participants are still in the 16 weekly core sessions. None of the participants have completed the full 12 month program at the time of this report, but their progress and weight loss continues. One challenge with the national YMCA’s data analysis methods is that any participants who drop out after attending four classes are still included in the averages calculated for the cohort.

Tackling prediabetes is a monumental challenge, for the individuals as well as organizations. They have struggled with finding participants ready to make a long term, lifestyle change. Factors contributing to low success rates were: lack of participant commitment to the program, lack of medical referrals, their internal focus on quantity vs. quality of participants, and low numbers of qualifying participants via bloodwork. However, the YMCA is confident in the strength and quality of our program curriculum and the staff leading the cohorts, as we have seen that committed participants flourish in the program.

## MOVING FORWARD

The hospital data show the extent of our community’s problem with diabetes, both in general health status and use of the ED. Over time, for example, HD has been increasingly working with the aged—yet they continue to produce consistent and significant results with clients whose initial HbA1cs are in the highest risk group. As diabetes continues to make gains in our community, it is obvious that programs like Healthy Diabetics and preventative programs like the YMCA are needed.

MHSB data showed 32% of the 1,175 diabetic visits with recorded HbA1c levels were in the highest risk category (>9.0). The needs of this group will now be addressed in 2017 by the Beacon Nutrition and Wellness Team after the HD program ended. The YMCA’s Diabetes Prevention Program will also continue helping those at high risk for pre-diabetes achieve their physical activity and weight loss goals over a twelve month period.

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**MATERNAL/INFANT  
HEALTH & PRENATAL**

**CARE**

# Significant Health Need

Multiple health measures from the 2015 CHNA support the issue of maternal/infant health/prenatal care as a community health priority. The teenage birth rate is higher in SJC (28.4) than the nation overall (26.5). Both St. Joseph and Elkhart counties have low first trimester prenatal care rates among Black/African American residents (approximately 50%). Infant and neonatal mortality rates are likewise higher in SJC (8.7 and 6.7, respectively) when compared to Indiana and the nation. Several perinatal health indicators were also noted, including smoking rates during pregnancy; and low birth weight.

Unfortunately, an earlier program - Prenatal Care Coordination - was terminated in July 2015 due to reductions in state funding. This action directly impacted approximately 250 low-income pregnant women per year. In addition to Community Health providing prenatal care for low-income vulnerable and at-risk mothers and babies through a new Perinatal and Infant Health Project (PIHP), this

has created a clear need to collaborate with other local public health services to address prenatal care. To face those challenges and meet this need, Community Health Enhancement has created these focus areas and indicators to assess progress over time.

**Priority Focus 1:** Provide active case management for low-income pregnant mothers and infants during and after pregnancy

**Priority Focus 2:** Diabetes management during pregnancy

**Priority Focus 3:** Sexual health education

**Priority Focus 4:** Identify variables that decrease infant mortality

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that apply to this CHNA priority. These predictive analytics from MHSB visit data further confirm the need for targeting smokers and providing more support for Black mothers. They also suggest that C-sections are linked with

pre-term and low-weight births.

### Charges

- ▶ An infant staying in the NICU was shown to have increased charges of \$4,350
- ▶ Mothers who delivered by C-section had higher charges of \$4,446

### Birth weight

- ▶ Mothers who smoked correlated with a 0.23 kg decrease in infant birth weight
- ▶ Mothers who delivered by C-section were correlated with a 0.33 kg decrease in infant birth weight
- ▶ Black infants correlated with a 0.14 kg decrease in birth weight compared to White Infants

### Gestational Age

- ▶ Black mothers had a 10.6 day decrease in gestation compared to White mothers

### Premature

- ▶ Black infants were 2.39 times more likely to be premature than White infants

# Programs to Address the Need

Goals:  Achieved: 12  In-Progress: 5

In 2016 Community Health partnered with these six programs to meet this priority need.

## BABE STORE

The purpose of this project is to organize and implement a process to collect useful data on the B.A.B.E. program.

## Outcomes

The total number of coupons distributed to partner vendors in 2016 is approximately 33,242. There were 11,699 BABE coupons redeemed in 2016 by clients, representing a redemption rate of 35%. In 2015, the redemption rate was 32% (27,682 distributed; 8,976 redeemed). The B.A.B.E. program is working to establish a more complete data collection system for the redemption

of coupons. Vendors are being contacted and reminded to completely fill out coupons to ensure data is available. We are also weeding out older coupons by having them expire in two years. Additionally, changing the color of the coupons will assist in determining which coupons were distributed each year. The project has met some unanticipated challenges but know there will be more complete data collection in the future. It was difficult to collect and organize data due to

the limited hours of the program coordinator. This has changed for 2017 as the Project Coordinator will be working five more hours a week.

## ENFOCUS HEALTHY POINTS PERINATAL

Healthy Points is a secure, social networking mobile application that can be added to traditional outreach and community health services. Patients are encouraged to share information with each other and can earn points for posts that provide evidence of improved behaviors, such as diet, exercise, or preparing to breastfeed. This study proposed to assess the effects of Healthy Points over a 2-year period for a projected cohort of 110 mothers enrolled through the Maternal Fetal Medicine (MFM) Center at Memorial Hospital of South Bend (MHSB) and observed from 12 weeks gestational age until 6 months post-partum. This cohort was co-managed by Dr. Kurt Stiver and Women, Infants, and Children (WIC) of St. Joseph County. Most of the women in the program were expected to be low-income (<185% poverty), and eligible for/currently utilizing Medicaid. The study hoped to address both at-risk pregnancy and prenatal care by providing education and 24/7 peer to peer support for pregnant mothers. We expected to stabilize health outcomes and reduce the final burden on MHSB's emergency department (ED).

### Outcomes

The rolling enrollment due to the nature of pregnancy has challenged the success of Healthy Points. We have found that human nature prevents women from posting to a group where they have not made a personal acquaintance. For this reason, we believe that the case management

piece of chronic disease management is key to success. The population we aim to serve requires continued support and reminders to engage. Through these reminders and gentle pushes, we hope to get 3 or more mothers into a class together. Once they know each other, critical mass should take over and these women will encourage others to post as well.

Our enrollment has been low. In an effort to increase the number of eligible women, we gained Institutional Review Board approval to enroll at-risk pregnant women. The expanded risk factors allow for enrollment of any patient that can be positively affected by diet and exercise behavior modification. Our current partnership through Maternal Fetal Medicine typically does not see the at-risk population so we then aimed to set up partnerships with other clinics, including E. Blair Warner and Indiana Health Center. E. Blair Warner has agreed to enroll patients, but their OB coordinator resigned midway through enFocus training and the new OB coordinator has not caught up with understanding all her new responsibilities to add our program yet. Indiana Health Center had also agreed to enroll patients, but currently the agreement is being reviewed by legal personnel. Lastly, we recently reached out to Southeast Clinic.

Due to lack of engagement and enrollment, we are not able to display evidence that confirms or denies Healthy Points' effectiveness in stabilizing health indicators or reducing adverse birth outcomes.

## PERINATAL AND INFANT HEALTH PROGRAM (PIHP)

During pregnancy, the Perinatal and Infant Health Project (PIHP)

program social workers provide several direct services to assist low-income, vulnerable, and at-risk women. They promote maternal physical and emotional health through an integration of home and clinic visits. The services include: recruitment as early as possible after pregnancy is confirmed (e.g., partnership with Early Start); outreach, assessment, care plan development, ongoing care coordination and monitoring; encouragement to keep doctor's appointments and medical orders; health and nutrition counseling; pregnancy/childbirth education; identifying and resolving emerging life challenges/stress; referrals to supplemental programs for reducing risky behaviors; and advocacy with relevant agencies. Some of these target areas reflect those offered by the federally funded Healthy Start Model and the evidence-based Nurse-Family Partnership program. The latter program, however, only supports first pregnancies.

Mothers will be likewise encouraged to participate in additional services as needed that Community Health Enhancement currently provides (i.e., Baby and Me-Tobacco Free; WIC, breastfeeding support, the Indiana Cribs for Kids Program, Childhood Safety Class, and activities provided through the BABE store) In sum, all of these services are designed to assist the pregnant client and the client's family (when appropriate) to positively impact the outcome of her pregnancy.

The infant's continued growth and development after birth will also be promoted until the child's first birthday through the following services: reminding parents to get infants immunized and keep regularly scheduled well-baby appointments; safe sleep program instruction (e.g., partnership with Indiana's Cribs for Kids); infant developmental

screenings at 6 months and 1 year and referral to First Steps for infants not meeting developmental milestones; breastfeeding support; child development classes; bonding and fathering workshops, participation in WIC. Best practice and provider care guidelines as outlined by the Indiana Perinatal Network have been and will be standard with PIHP.

## Outcomes

The PIHP program reached all its goals. We desire to attain a higher rate of breastfeeding, but many of the women served restart antipsychotic medications following the birth of their infants. Many are advised by their medical providers not to breastfeed as mother's medications may be harmful to the infant.

Goals met include:

- ▶ Tobacco use: 100% of smokers (N=9) reduced or quit by delivery.
- ▶ Preterm births: None of the infants born to participants were delivered at less than 37 weeks. Average gestational age was 39 weeks.
- ▶ Birth weight: Only one of the 14 babies delivered live weighed less than 2,501 grams (5 lbs 8 oz). That baby was born at 2,270 grams or 5 lbs 0 oz.
- ▶ Mortality rate: All 14 infants born to mothers enrolled in the PIHP program were living as of 11/30/2016. The oldest infant was 5 months of age and the youngest infant was approximately one week old on that date.
- ▶ Breastfeeding rate: The IN average rate is 74.1%; our rate was 78%.

## SAFETY AND SAFE SLEEP

The Childhood Safety and Safe Sleep classes were both designed to increase education to our community. The Safety class is aimed at parents and caregivers of children ages birth to teen. A variety of topics are covered to prevent accidents and injuries. Preventable childhood accidents are one of the top causes of childhood deaths. Home needs are discussed and families are given items needed to make homes safer for children. This class is offered monthly to the community. The Safe Sleep Program is aimed at parents and caregivers to prevent SIDS (Sudden Infant Death Syndrome). During the class the caregivers are given education, Survival kit, and a pack and play. This program is offered to caregivers and parents of children under the age of 1 or currently 25 weeks or more pregnant. This class is offered twice a month or on immediate need basis. With our current community health programs through Memorial we educate all patients in both Safety and Safe Sleep.

## Outcomes

The classes are implemented in the community to educate caregivers on the most up to date education for child and infant safety. In 2016 Safe Sleep Program served 209 parents or caregivers in St Joseph County. This is an increase of 37 caregivers over 2015. Along with planned classes we have also been available for the immediate needs of those in the Mother and Baby Unit, CPS and are currently working with the local fire department. Prescreening and Post education tests show an increase of knowledge in 72% of caregivers on topics discussed. Childhood Safety

Program data show 62 families were educated on childhood safety. Prescreening and Post education test show an increase of knowledge in 60% of caregivers on topics discussed. These 62 families have a decreased chance of childhood injury or death by attending class.

## ST. JOSEPH COUNTY HEALTH DEPARTMENT- FETAL & INFANT MORTALITY REVIEW (FIMR)

The St. Joseph County Health Department (SJCHD) Fetal Infant Mortality Review (FIMR) Program examines the social, economic, cultural, health, safety and systems issues related to infant death and determines local factors upon which interventions for improvement in the perinatal health system can be based. Once data is collected by the FIMR Coordinator, it is presented to a Case Review Team in the form of case summaries. The Case Review Team (comprised of Neonatologists, Obstetricians, Pediatricians, Registered Nurses from hospitals, clinics and family planning, Social Workers, Bereavement professionals, Health Department Educators and Community Educators) studies each case to determine the issues present and those that contributed to the infant deaths. The SJCHD FIMR Case Review Team began monthly meetings in October and has formally reviewed 15 cases. FIMR also utilizes a Community Action Team (CAT) that will begin quarterly meetings in January of 2017. The CAT will receive recommendations from the Case Review Team and work to determine

## SCHOOL HEALTH AND WELLNESS EDUCATORS

The School Health and Wellness Educator Team provides education and training to 3,567 at-risk intermediate and high school youth within South Bend Community School Corporation. They prepare children for a world of complex relationships, promoting healthy decision making through neuroscience education, digital training, and sexual health curriculum (Draw the Line/Respect the Line for students in grades 6-8). This education is an important pre-emptive step to preventing adverse Maternal/Infant Health outcomes. The curricula help develop responsible attitudes, resilient behavior and respect for boundaries.

### Outcomes

The School Health & Wellness Educators intend to follow-up with students both one and three years

after programming to ascertain the continuing effectiveness of their programming. Currently, a High School Health & Wellness Survey is administered to students predominantly in the ninth grades. In addition to measuring outcomes for students with three years of programming in DTL/RTL, the survey was also given to a second group of students with no training or less than three years of programming. Results from comparing both groups show students with three years of DTL/RTL met three of the four program goals: 29% engaged in sex while in

how existing resources might be mobilized to address infant mortality trends in our community and create new programs where gaps exist.

The Center for Disease Control in September of 2016 stated that, “The infant mortality rate is often used as an indicator to measure the health and well-being of a nation because factors affecting the health of entire populations can also impact the mortality rate of infants.” (<http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>)

Because the infant mortality rate reflects the overall health of a community, the SJCHD FIMR program seeks to address the Community Wellness indicator and infant mortality through a continuous cycle of improvement that involves: data gathering and assessment, case review, and development of recommendations for policy development and system changes.

### Outcomes

Since obtaining permission to access medical records in July of 2016, 15 records were abstracted by the FIMR Coordinator and several mothers were interviewed. To date, the Case Review Team has identified several focus areas with the potential to improve outcomes for infants in our community.

- ▶ Infection - Education related to hygienic and sexual practices during pregnancy.
- ▶ Smoking Cessation - Education about dangers of smoking during pregnancy at the middle school to high school level and continuing community education about poor pregnancy

outcomes related to smoking. Connecting pregnant women who smoke to smoking cessation programs.

- ▶ Preconception planning - Education about the importance of maternal health prior to becoming pregnant including weight, smoking, drug use, pregnancy spacing



and family planning. Ideally, this education will take place long before a woman and/or her family are considering pregnancy.

- ▶ Bereavement Resources - Women are offered support while hospitalized after the loss of an infant but the Case Review Team believes that the ability to consistently follow up with mothers for at least one year is very important.

high school; 81% could set limits for themselves, and 90% respected others' limits. The fourth goal of 90% knowing how to resist peer pressure was almost achieved (88% agreed).

Satisfaction levels show how dedicated to their teaching the Team is, with Team Educators scoring an 84% satisfaction rate during the 2015/2016 school year. The following additional outcomes show gains in student knowledge of the content: 76% of students were able to identify the “lizard brain” after their Owner’s Manual course, and 60% of students in post-surveys demonstrated an understanding of the brain’s ability to change. In 2016, the Team introduced Wellness coaching to a small group of high school students. Typically a 60% goal completion rate is considered ideal by Wellness Coaching associations, but our students exhibited a pleasing 67% goal completion rate. Finally, students with three years of DTL/RTL responses of agree or strongly agreed highlighted the following: 85% plan to use birth control, 92% would be tested if they thought they were at risk for an STI, and 64% avoid situations leading to sex.

The value of this work is best seen comparing the outcomes of those who were given the opportunity to

experience the full programming of three years with those who had fewer years or none of the curriculum, which makes it clear how impactful such interventions are among youth. These surveys help determine the lasting effects of the Team’s curricula, and also function as a measure for further outcomes, helping the Team to determine if there are any additional areas of influence where students can be reached for intervention.

## MOVING FORWARD

The commitment to support maternal and infant health by MHSB is evident in their major investment in a new Children’s Hospital and innovative NICU unit. The hospital data show that mothers and children in our community need these services. Although IN and Healthy 2020 goals for low birthweight are both 7.8%, MHSB data show rates for low birthweights in SJC represent 17.4% of infants with birthweight information provided. Babies also average a stay of over 3 weeks in the NICU, which highlights the need for prioritizing care for maternal and infant health, especially among black women—according to the predictive

analytic data.

MHSB currently supports this priority along a continuum of care, beginning with curriculum provided to middle and high school students and other programs targeting pregnancy and infant development. PIHP’s work and the Safety/Safe Sleep program are intentionally directed towards vulnerable populations where the predictive analytics show needs exist.

In 2017, Baby and Me Tobacco Free will continue to refer clients to Community Health’s Prenatal and Infant Health Program, which provides mothers with individualized case management support throughout pregnancy and until the baby’s first birthday. In its first year, they successfully helped all smokers to reduce or stop smoking by the baby’s delivery. This support is especially needed as Fetal and Infant Mortality Review’s analysis of infant mortality cases in 2016 highlighted the need for improving smoking cessation as one of its four recommended focus areas. The FIMR teams will also continue using prior tragedies to identify solutions that can be implemented and maintained to improve future outcomes.



# MENTAL HEALTH/ SUICIDE

# Significant Health Need

The suicide rate per 100,000 is higher in SJC (13.4) than the nation (12.6), and Memorial's Children's Hospital reported a dramatic increase in pediatric patients hospitalized from failed-suicide attempts. The years of potential life lost before age 75 per age-adjusted 100,000 is also higher in SJC (7,424) than the national benchmark of 5,200. SJC reported more average days of poor mental health when compared to the national benchmark (3.7 versus 2.3 out of 30 days). Of the 549 community survey respondents, 27% reported living with someone depressed, mentally ill, or suicidal; up from 14% in 2012. Mirroring this, 21.5% of SJC respondents reported having been diagnosed with an anxiety disorder (15% in 2012) and 29.2% were diagnosed with a depressive disorder (21% in 2012). To

face those challenges and meet this need, Community Health Enhancement has created these focus areas and indicators to assess progress over time.

**Priority Focus 1:** Youth and adolescent development

**Priority Focus 2:** Mental health in aging populations

**Priority Focus 3:** Increase youth resiliency

**Priority Focus 4:** Increase awareness of suicide prevention

## Predictive Analytics

The following predictions represent findings from the hospital Electronic Medical Record data that apply to this CHNA priority. Predictive analytics of MHSB visit data suggest targeting specific groups to improve different

diagnoses of Mental Health. Compared with Whites, visits for Blacks are more likely to be related to dementia, substance abuse, and schizophrenia while Hispanic visits are more associated with depression and autism than Whites.

### Depression

- ▶ Females are 33% more likely to have a depression diagnosis
- ▶ Blacks are 41% less likely to have a diagnosis than Whites; Hispanics are 24% more likely to have a diagnosis than Whites

### Anxiety

- ▶ Females are 43% more likely to have an anxiety diagnosis
- ▶ Blacks are 39% less likely to have a diagnosis than Whites
- ▶ Each additional year of age increases the likelihood of an anxiety diagnosis

# Programs to Address the Need

Goals:  Achieved: 5  In-Progress: 5

## AGING IN PLACE (AIP)

AIP programming helps seniors in low-income housing remain productively and successfully independent by providing them with caring and holistic services so they can continue to be a rich part of the community and society. The program is hosted at three South Bend sites (Robertson's Apartments, Monroe Circle Community Center, Heritage Place at LaSalle Square).

### Outcomes

The Aging in Place team acknowledges there is a need for improvement in order to meet the Mental

Health goals. Of the 115 AIP participants only 54% engaged in socio-emotional activities. Since AIP was only able to continually provide activities throughout 2016 at one site (Heritage Place), we compared socio-emotional participation data between 2015 and 2016 data for that single location. We found that:

- ▶ 90% of AIP participants engaged in socio-emotional activities in 2015
- ▶ 83.8% of AIP participants engaged in socio-emotional activities in 2016

For the overall population of AIP participants, socio-emotional quality of life results from the pre/post Older Persons Quality of Life survey scores show declines in quality of social relationships as well as psychological

and emotional well-being.

In addition, the Quality Health Metrics survey results also portray the need for supporting mental health in AIP participants. For example, although the AIP results for first stage positive depression screening across both 2015 and 2016 were consistent over time, they are higher than general population norms for that category as 24% of AIP's participants are at risk for depression compared to 20% of the general population norms for both 2015 and 2016. There was, however, a slight improvement for the female population in 2016, showing 21% of female participants were at risk for depression versus 24% in 2015.



## FRIENDS OF THE JUVENILE JUSTICE CENTER

The Friends of the Juvenile Justice Center (“the Friends”) is a 501(c)(3) organization created for the purpose of financially supporting activities at the Juvenile Justice Center. We designed this proposal to give youth the opportunity to participate in repeated programming over time that was provided by three distinct 501(c)(3) organizations described below. Although each program uniquely differed, all three were focused on improving the mental and emotional well-being of youth involved in our community’s juvenile justice system.

Reading for Life (RFL) has developed an economical and effective remediation and court diversion program by using literature, classic virtues and small group mentoring to inspire youth to make better life choices.

The 360 Project matches at-risk youth with dogs that are at risk of being euthanized or are viewed as “less” adoptable to provide pet-assisted therapy.

DRUMBEAT is a program provided by the ARC Alliance, which promotes and teaches hand drumming as a tool for promoting social networks, relationship building, physical exercise, and stress management.

### Outcomes

The following data from all three programs show depression and anxiety scores decreased at varying levels, depending on the specific program. Decreases for 360 were strongest (46.7%), followed by Drumbeat (42.9%) and Reading for Life (30.8%). Aggregate pre-results showed caution levels of depression/anxiety decreased from 29% to 19% and higher warning levels decreased from 10% to 7%. Most youth decreased their emotional reactivity

scores, especially in Reading for Life. In comparison, the majority of youth in only two of the programs (360 and Drumbeat) increased resiliency scores. Additional MAYSI-2 survey findings provided more information on youth changes experienced after program participation, which are relevant to both mental health and violence. For example, Drumbeat participants reported stronger decreases in alcohol/drug use, somatic complaints, and suicide ideation as well as male thought disturbances.

## KEVIN HINES LECTURE

Memorial Hospital partnered with Oaklawn to bring nationally renowned author and suicide survivor Kevin Hines to South Bend May 5th and 6th for two full days of suicide prevention programs in the community.

‘Into the Light: A Personal and Professional Perspective on Suicide’ was hosted by Oaklawn at the Century Center on two consecutive days, providing 550 professionals with continuing education by Mr. Hines and international suicide expert Dr. Thomas Joiner. Each day-long session emphasized understanding the complexity of the thoughts and feelings of those with suicide ideation, the biological and medical framework that leads to suicide ideation, and how to respond to individuals in suicidal crisis.

‘Cracked, Not Broken: A Personal Reflection on Suicide Prevention’ was presented by Mr. Hines to a widespread audience of approximately 100 adults and teens on May 5. Sponsored by Memorial, this event was held at the Charles Martin Youth Center.

Due to successful media coverage of the event, local television and newspapers reached thousands more in the community with information about suicide prevention and resources.

## Outcomes

- 97% of ‘Into the Light’ attendees who evaluated the session reported learning new information through this event
- 94% of ‘Cracked, Not Broken’ survey respondents reported feeling better informed and more comfortable about addressing suicide and suicidal intent with others

## MARY MORRIS LEIGHTON LECTURE

Dr. Tina Payne Bryson presented on *The Whole-Brain Child: Relationships and Resilience*. From tantrum-throwing toddlers to sassy teens, she provided the audience with tools to defuse, redirect and reason with their children. She shared the science behind how a child’s brain is wired and how it matures — powerful knowledge for dealing with those less-than-scrapbook-worthy moments!

### Outcomes

The Hilton Garden Inn conference area was filled to capacity this year with 525 community members attending.

- 91% stated some or all of the information in the program was new to them
- 89% agreed or strongly agreed that the information was usable in their day to day life
- 91% stated they’d recommend this program to others
- 92% stated it was important to know how their child’s brain works
- 73% told us it was their first time at a Leighton Lecture event

## MIND UP

MindUP™ is a research-based curriculum developed by the Hawn Foundation, in collaboration with neuroscientists, behavioral psychologists, educators, and leading researchers in the field of social and emotional learning. The curriculum includes instructional materials and trainings for teachers of grades Pre-Kindergarten through eighth grades. It features 15 lessons using the latest information about the brain to dramatically improve behavior and learning for all students.

### Outcomes

Nearly two-thirds of the 17 students at Rise-Up Academy improved their resilience scores and 52.9% reduced their emotional reactivity scores. Additionally, they improved in knowledge gained from the content. Overall, it was difficult to get consistent attendance from the at-risk student population, but the curriculum was effective in helping at-risk students build resiliency.

## ST. ADALBERT SCHOOL

This is the second year of a joint project on behalf of St. Adalbert and Our Lady of Hungary Catholic Churches in South Bend. Both parishes operate parochial schools serving students in pre-K through eighth grades. Each school has approximately 225-250 students.

St. Adalbert and Our Lady of Hungary jointly hired a School Counselor, Ms. Cristela Romo, who

works 20 hours per week at each school. Some students were referred to her by teachers, administrators or parents. Others were self-referrals by the students themselves. Many referrals were prompted by behavioral issues in the classroom, others by mental health issues such as depression or eating disorders. In many cases, the problems were found to have roots in domestic violence or abuse in the home. As a result, the School Counselor was trained in Eye Movement Desensitization and Reprocessing (EMDR), an emotional debriefing strategy found to be effective with trauma victims and for the schools to become trauma-informed communities that provide mental health services.

### Outcomes

In 2015-16 the ten students who were counseled using EMDR reported final Subjective Units of Disturbance (SUD) scores (should decrease) of 0 and a Validity of Cognition scores (VoC) score of seven (should increase) at the end of every therapy session. In addition, beginning SUD scores continued to decrease over time, and beginning VoC scores increased over time. The only partial exception to that trend was Student A, who began Year Two with a greatly elevated SUD score and a lowered VoC score, but then followed the same pattern as the other students with subsequent therapy sessions. Students reported no dramatic disturbances or changes since their last therapy session. They also reported fewer fears and/or worries, better relationships with their parents, and no urges to self-harm.

At mid-year the attendance, GPA, and tardiness data for Students B, D and F showed some promising and

consistent trends. Unfortunately, Student D is the only one for whom those trends continued.

Ultimately no firm conclusions can be drawn from the GPA or absenteeism data. EMDR therapy seemed to have a consistent positive effect on the psychological well-being of all the children who were treated, but there does not appear to be a corresponding secondary effect on their academic performance or their absenteeism.

## MOVING FORWARD

The demand for mental health services has been escalating in our community, and meeting those needs requires a range of short and long-term solutions. The predictive analytic data highlight that anyone can struggle with mental health issues—regardless of age, race, or other demographic identifiers.

Building awareness is only one part of the process, however. We also love partnering with community organizations on new initiatives that our partners will eventually sustain by themselves. The EMDR-trained counselor position is one example of the type of partnership which continues today, after our two years of support ended in June.

In 2017, Community Health will continue to support the building of resiliency and lowering of anxiety/depression levels in youth at the Juvenile Justice Center. After reviewing their progress using 3 programs in 2016, they made the data-driven decision to exclusively use the highly effective Drumbeat program in this coming year. In addition, the Aging in Place program will consistently engage residents in socio-emotional activities throughout the year to improve their well-being and quality of life.



# OVERWEIGHT/ OBESITY

# Significant Health Need

Over 17% of children in SJC are overweight and/or obese. With the correlation between numerous adverse chronic and emergent health conditions, being overweight or obese was cited as the most significant community health issue in the key informant survey and a high priority during group discussions. To face those challenges and meet this need, Community Health Enhancement has created these focus areas and indicators to assess progress over time.

**Priority Focus 1:** Community and youth engagement in physical activity

**Priority Focus 2:** Knowledge and consumption of healthy food

## Predictive Analytics

The following predictions represent findings from hospital visit Electronic Medical Record data that apply to this CHNA priority. These predictive analytics suggest targeting specific demographic groups:

### Charges

- Each additional year of age increased charges by \$661
- Males had charges \$7,735 higher than females

### Body Mass Index

- Black patients had a BMI 1.83 units higher than Whites
- Female patients had a BMI 1.49 units higher than male patients

# Programs to Address the Need

Goals:  Achieved: 3  In-Progress: 5

## HEALTHWORKS

Memorial HealthWorks! Kids Museum, an educational arm of Memorial Children's Hospital, provides high-quality health education experiences to children and families throughout Michiana and beyond. HealthWorks! is not only on-location but also provides community outreach services, bringing health education flair to churches, schools, businesses, community-wide events, and youth service programs.

HealthWorks! Kids' Museum, along with its community partners, offers families across Michiana an opportunity to spend time together and participate in fun-filled activities. Passport to Play (P2P) is a free program that gives families the chance every month to enjoy the beauty of local parks (e.g., hayride, ice-travaganza, summer splash), eat a

healthy snack (e.g., ingredients from a trail mix bar, lunch of sandwich, fruit and pretzels), exercise in an exciting way (e.g., snow tubing, family fun walk), and learn new things about enhancing your own health and well-being.

## Outcomes

During the Fall of 2015 through the Summer of 2016 a total of 3,093 individuals participated in P2P. Currently no additional P2P data is collected other than the number of attendees, but families tell us how they have been positively influenced by this program. Throughout the years, several families have reported lowering their weight to meet a healthy weight range. P2P helps to connect with younger members of the family; this way the adults hold their children accountable and vice versa.

## LEEPER PARK/ MADISON PRIMARY CENTER

The purpose of our Park Foundation, Madison Primary Center, Leeper Park, and Memorial Hospital collaboration is to positively impact childhood obesity. This program is five years in duration. A college student and community business partner team-building and project management approach is utilized to execute the plan and leverage resources to achieve a big goal. There are five major projects over a span of five years that strategically link students to active learning in the Park. Year one (2015) project was in West Leeper Park, installing 500 feet of 8 feet wide curved sidewalk to define a curvilinear garden edge. Additionally, historic lighting was installed, a

water source was provisioned, and a donated irrigation system was secured. Matching benches and trash receptacles were also installed. The Madison Primary Center students will get more exercise from planting, weeding and harvesting the vegetables and flowers from this garden. They will also learn about healthy food and how it is grown. Programming will be executed using active hands-on participative learning. Year two finished the three brick learning nooks along the Phase one curved sidewalk. College students installed 5,000 bricks to create an inviting spot to see the garden and learn about what is growing there. The next planned project we are actively working on is the design of a lavender labyrinth in Leeper Park on the alignment of Main Street, north of Park Place and Southeast of the duck pond. It will match the formal garden look of the George Kessler Plan for Historic Leeper Park. The last three years will be detailed in future reports.



## Outcomes

We had a baseline of sedentary students not getting much exercise on a City block of almost entirely building, parking lot, basketball court and small playground with limited recess use only. The school goals are to be a STEAM school – teach and show where healthy vegetables come from, engage the students in the nature that surrounds the school in the form of historic Leeper Park, and measure additional steps of representative groups of students using pedometers and strategically

logging active days. Second and fourth grade students use Leeper Park to run and play every day for a 20 minute recess from mid-August through the month of November. In addition, five classrooms (one each from grades kindergarten through fourth) once a month earned an extra 30 minute Leeper Park recess for earning most Paw Print Chips (positive behavior incentive). Additionally, a year-long permission slip was created for students, so that teachers can use all the amenities of the park as an outdoor learning area any time during the

school day. Other accomplishments consist of adding a “Go Noodle” which includes Popsico, Zumba, and Kidz Bop for two minute transition five times per day – implemented in 22 classrooms; teachers are transitioning to flex seating which is a standing desk with a foot swinging bar, and 8 wiggle seats; using “Imagination Playground” and “Catch” for days when the weather calls for inside recess. Madison Primary Center has been selected for numerous aligned programs, wherein the partnership with Memorial and the City were helpful in winning grants. Many of those programs will begin in 2017 and baseline information will be

determined at that time.

## ST. JOSEPH COUNTY HEALTH DEPARTMENT – PRESCRIPTION TO PLAY

This free program consists of organized physical games based off the Coordinated Approach to Children’s Health program (CATCH)

for families with a prescription referral from a local health provider. Through this program, physical activity and healthy choices will be promoted to elementary through middle school age children (specific ages are 7-12), however we do see a large number of younger children as part of the family unit.

## Outcomes

The first two goals (Increase number of children who were able to reduce their BMI and Increase number of children who met or exceeded their physical fitness ability goal) were not able to be calculated because of insufficient data; there was not a method in place to collect the measurements for BMI and fitness ability. This will be corrected in 2017 in the form of surveys and other data collecting techniques that will allow the fitness and weight-loss goals to be measured.

There was a slight decrease in the total number of families and prescription holders who attended the various sites this year compared

to the last. In addition, there were 103 prescriptions in 2016 (through October) compared to over 200 in 2015. This is in part due to the loss of two staff members over the spring/summer so keeping active interest in the program was difficult; another factor could possibly be due to changing sites and times of the program days. We are considering whether to restructure the program to off-set this barrier.

## UNITY GARDENS

Unity Gardens Food and Fun Immersion included programs and activities designed to enhance the garden experience and connection with fresh produce for neighbors and the community. This program targeted vulnerable aggregates within the area surrounding LaSalle Square Unity Garden, especially the Beacon Heights Apartments community. Increased garden involvement for youth and adults was designed to improve access to fresh produce, and subsequently decrease obesity rates and increase food security long term. In addition, opportunities for increased physical activity were actively planned, not only with events, but also in the structural plan of the Unity Garden.

### Outcomes

Unity Garden camp was a free day camp where area youth have opportunities for natural exploration, garden immersion, tasting tours, leadership, environmental sustainability, and service. Physical play and eating plenty of fresh produce were woven within the program. This free one-week camp was hosted twice in July to avoid scheduling conflicts and enhance leadership opportunities

for the new “Counselor in Training” (CIT) program.

Garden Camp encouraged consumption of fruits and vegetables using a variety of methods; 26 new vegetables were introduced to at least 44 campers. Not all of them liked everything, but they all tried them. In addition, the only snacks offered throughout the day were apples, sweet peppers, grapes, oranges, and bananas. In 2015, 29 campers tried 27 different kinds of vegetables.

Campers as a whole had an increase of 217,678 steps! Keeping the areas for planned activities, free play stations snack and water, and lunch and learn all very far apart encouraged increased walking.

This year Unity Gardens also consistently tracked the number of garden visitors most evenings and some days. The number of first time visitors and those needing harvesting help were particularly interesting. With 1229 first time visitors just in the evenings, there were 1673 adult and youth visitors total. In comparison, there were 810 visitors in 2015. The number of weekly garden visitors (and presumably harvesters) exceeded last year by over 100%. Last year the most weekly documented harvesters were 103, with this year exceeding 200. In addition, all but 4 weeks exceeded 100 garden visitors.

The Garden to Plate program included eight weekly classes from area chefs who demonstrated a recipe using produce found in the garden, followed by a community pot luck/picnic. The first picnic hosted over 50 people, 12 of whom came from Beacon Heights. The following week we hosted over 70 people, many of whom were campers and their families.

Overall, there was increased community involvement in Unity Gardens, not only encouraging healthy eating and increased physical activity, but also broadening the reach of people who visit the garden, and subsequently, the west side area.

## MOVING FORWARD

In 2016, there were mixed results in the Obesity/Overweight priority. It was difficult to document progress in programs that provide services to fluctuating family audiences, even if the events were well-attended. Unity Gardens achieved outcomes during their week-long camps, but whether youth maintain those diet and physical activity gains over time is unknown. Data from Garden Guides, however, has begun to verify that individuals and families are returning visitors to the garden—and the 2016 increase in participants from Beacon Heights is a very encouraging development. In 2017, Unity Garden’s outreach to the Beacon Heights community will be able to build upon those levels of increased engagement.

The partnership with Madison School/Leeper Park is one program where growth over time can be measured consistently across one year and multiple years. Now that the road construction projects are finished and all students can regularly and safely access the park, they are expected to exceed physical activity levels in 2016. In 2017, community and youth engagement in physical activity and consumption of healthy food will continue to be provided by several partners.

**VIOLENCE**

**/SAFETY/**

**TRAUMA**

# Significant Health Need

The violent crime rate per 100,000 is higher in SJC (370) than in Elkhart County (264), Indiana (334) and the national benchmark (59). Almost 40% of the Key Informants indicated Violence/Safety/Trauma was a key theme. The Community Survey data showed 23% had been hit, beat, kicked, or physically hurt by a parent or adult in the home, up from the 18.9% in 2012. To face those challenges and meet this need, Community Health Enhancement has created these focus areas and

indicators to assess progress over time.

**Priority Focus 1:** Traumatic Situation Assistance

**Priority Focus 2:** Shooting Incident Tracking and Reduction

**Priority Focus 3:** Support for trauma patients at Memorial Hospital

## Predictive Analytics

The following predictions represent findings from hospital visit Electronic Medical Record data that apply to this CHNA priority. These

predictive analytics suggest supporting Black males to improve Violence/Safety/Trauma.

All Gun-Related Injuries

- ▶ Males were 5.10 times more likely to be victims of gun-related injuries

All Assaults (includes assault by weapon or physical assault)

- ▶ Males were 1.53 times more likely to victims of assault
- ▶ Black patients were 2.84 times more likely than females to be victims of assault

# Programs to Address the Need

Goals:  Achieved: 4  In-Progress: 6

## ACE INTERFACE

ACE Interface was created in 2016 to create a trauma informed community that conveys care and compassion for all people, and builds resilience in people impacted by ACEs (Adverse Childhood Experiences). Building resilience not only increases the likelihood that ACEs will not occur but also helps people recover from ACEs, enabling them to thrive in spite of adversity.

To achieve this goal, our project is geared to different audiences. The audience for Goal one is comprised of professionals who become Master Trainers and/or Facilitators of ACE presentations. The presentations cover the ACE study, ways childhood adversity affects development and health, and how anyone can help reduce the negative impact of ACEs on individuals and communities. The audience for Goal two is the community members who attend these presentations.

## Outcomes

In 2016 there were 43 presentations provided to the community. All those who attended ACE presentations were asked to complete a survey. In November initial survey items were modified to better align with the four elements of SAMHSA's Trauma Informed Approach. Overall, the survey results indicate that over 90% of community members have high levels of awareness in four areas: realizing ACEs' impact, how to respond, recognizing their symptoms, and resisting situations that could re-traumatize; they are less sure of how to build resilience.

## EMDR TRAINING- SOCIAL WORK INTERNS IN TRAUMA DEPARTMENT

Memorial Hospital of South Bend Trauma Team seeks to promote

wellness and a positive quality of life for adult patients who are recovering from a trauma induced injury. As trauma can lead to posttraumatic stress disorder, Team members and interns have been trained in Eye Movement Desensitization and Reprocessing (EMDR), one emotional debriefing strategy found to be effective with trauma victims.

## Outcomes

Three patients have benefited from this program since September 2016. Two participants were screened using the DSM V criteria and one was screened using the PCL. All three participants were found to be appropriate for intervention based on the screenings. Participant #3 was discharged before a validity of cognition score could be completed. This intervention has been helpful to all three patients involved as evidenced by the clinical improvement noted above. Providing EMDR training to IUSB social work interns who help



in the Trauma Department matters as the Team seeks to both restore physical health and relieve the emotional trauma patients may experience with injury.

## SOUTH BEND GUN VIOLENCE INTERVENTION

The South Bend Group Violence Intervention (SBGVI) unites community leaders around a common goal: to stop gun violence and keep South Bend's highest risk citizens alive and out of prison. SBGVI is a partnership among 30 community leaders from law enforcement, government, education, civil service, health-care and faith-based agencies. Based on a proven model developed by David M. Kennedy, director of the National Network for Safe Communities at John Jay College of Criminal Justice, SBGVI advocates direct, sustained engagement with street groups that cause the majority of South Bend's gun violence. The strategy empowers community members to set clear moral standards against violence in their communities and reclaim a voice in the way they want to live. It coordinates the efforts of local, state and federal law enforcement to focus crime prevention efforts on the groups most associated with gun violence. SBGVI also draws on the expertise of social service providers to offer group members a path away from violence.

### Outcomes

The National Network had suggested four call-ins per year, but the group partners made a conscious decision in early 2016 to commit to consistently doing two call-ins a year, which seemed more appropriate for a community of our size. They also agreed they could increase that number again over time or as need might dictate. Over a 13 month period from 2014 to 2015,

82 men participated in 4 SBVGI Call-Ins; in 2016, 41 men participated in 2 call-ins. There were 60 shooting victims in 2014; 2015 and 2016 had 73 victims each year for the period from January through November. SBVGI continues to work towards decreasing the number of criminally assaulted shooting victims.

## TRAUMA LIAISON/ VIOLENT INJURY PREVENTION SPECIALIST

A new staff position of Trauma Liaison was established at Memorial Hospital to work with victims of violent crime and their families. The purpose of this position is to help victims of violence and prevent violent personal injury, retaliation, and recidivism among the population of South Bend through research, data monitoring/evaluation, and community involvement.

### Outcomes

For this position, Memorial Hospital South Bend created a process which provides continued support for violent injured patients and their families. All victims were provided the opportunity to speak to the violent injury prevention specialist. In total, only 41% of victims of violence were able to be contacted. Of those who could be reached, victims of violence and their families were more supported, and more comfortable communicating the details of their incident. Upon request, the prevention specialist visited and communicated with victims post hospitalization (for follow-up, education, and community resource assistance). From the data collected, implementation of this program has not reduced the amount of patients injured in a violent fashion returning or being re-admitted to the hospital. In 2015 0% returned compared to 3% in 2016. The

program accomplished some objectives, but not all. However, with more time and communication to our community, all goals of this project can be achieved.

## MOVING FORWARD

For the past few years, CHE has been very actively involved in efforts to reverse the harmful physical and mental effects of trauma. In addition to partnering with SBGVI to create a safer community and funding the Trauma Liaison position, we have emphasized the building of resilience as a way to both mitigate the influence of trauma and build qualities in youth and adults that enable them to both endure and thrive in the midst of challenging situations.

In 2016, a two-pronged effort began to help people recover from and prevent Adverse Childhood Experiences (ACEs). The ACE Interface Network targets professionals who become Master Trainers and/or Facilitators of ACE presentations and build awareness in community members attending the presentations. There are currently 47 trained Master Trainers and Facilitators, who have completed 43 presentations to 1503 people from a wide range of organizations. This work will continue in 2017.

In 2017, CHE's investment in the Trauma Liaison position will continue to be funded by MHSB's Trauma Department as they believe the position is valuable and can achieve its goals. CHE support for EMDR training of social work interns in the Trauma Department will also continue.

Additionally, Community Health was awarded a \$2 million grant to conduct a research project into resiliency education. The Community Resilience Center will include programming offering evidence based curricula that will assist young people who have experienced trauma to become more resilient and develop lifelong skills that will encourage their success.

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Memorial Children's Hospital

**PEDIATRIC**

**HEALTH NEEDS**

**ASSESSMENT**



MY BROTHER'S KEEPER

SOUTH **MDK** BEND



# Pediatric Health Needs Assessment

Memorial’s Community Health, along with Memorial Children’s Hospital led a Pediatric Health Needs Assessment (PHNA) in 2016. Community Health hired Holleran Community Engagement Research and Consulting to conduct the assessment in the following six area counties: St. Joseph, Elkhart, LaPorte, Marshall, Porter, and Lake.

Asthma ranked high as a health concern of key informants and was the most commonly diagnosed long-term physical health condition among the children of parent survey respondents.

Mental health and suicide was selected as the most pressing health concern in St. Joseph County (50.6%) and Lake County (45.8%), and it was found to be the second highest health

concern in Elkhart County (50.8%). ADHD/ADD was cited as the most pressing health issue in LaPorte (55.9%) and Porter (65.9%). Mental

as a local concern. The percentage of obese children ages 2-5 participating in the WIC program is particularly high in Marshall and Elkhart Counties, and percentages across all counties fell well short of the HP 2020 goal.

Community Health intends to focus initial efforts on St. Joseph and Elkhart Counties with the intention of sharing information and building relationships with the other four counties. Initial primary areas of focus taken from the PHNA will be Mental Health/ Suicide, Obesity, and Asthma. Gaining an understanding of initiatives and programs currently addressing these priority areas will be an early undertaking before assessing gaps and opportunities.



Asthma



Mental Health / Suicide



Obesity

health care was also cited by parents as the second most difficult service to access in St. Joseph and Elkhart Counties.

Childhood obesity was ranked as a top pressing health concern by key informants in every county but Lake and LaPorte. Secondary data also underscores overweight/obesity

## My Brother's Keeper South Bend

The My Brother’s Keeper (MBK) Community Challenge issued by the White House encourages communities to implement a cradle-to-college-and-career strategy intended to improve the outcomes for young people of color. The City of South Bend, assisted by community partners, chose to focus on reaching three priority milestones: Getting a healthy start & entering school ready to learn; Keeping kids on track & giving them second chances; and Successfully entering the workforce.

As the anchor organization, Beacon Health System will network and work with MBK community partners to complete the mission of closing opportunity gaps for boys and young men of color. Beacon Health System has committed

to spearheading the development and implementation of data-driven outcomes, ensuring efficiency and facilitating analysis, management, and presentation of data.

MY BROTHER'S KEEPER



PROJECTED OUTCOMES

**Reduce infant mortality rates:** Important developmental milestones occur before children even experience

school.

**Raise third grade reading scores:** The connection between school performance and future economic opportunities makes it critical that every child enters school physically, socially, emotionally, and cognitively able to learn.

**Decrease the juvenile arrest rate:** This outcome seeks to protect boys and young men of color in our community.

**Increased labor force participation & decreased unemployment rate:** Solutions will enable current students and out-of-school young adults to get a leg up and close the employment gap.

# Final Reflections: Building Population Health in Our Region

The planning and implementation of community benefit programs should be as rigorous and visible as planning for any other strategic initiative. Selecting the appropriate interventions for community health improvement is essential. To complement the individual program outcomes described throughout this report, additional health promotion efforts aimed at our at-risk and vulnerable populations reinforce Beacon Health System's commitment to improving the health status of all persons in our communities.

Elkhart General Hospital's Community Outreach programs continue to be actively involved in the PEERS abstinence and risk avoidance curriculum programming in Elkhart County Schools. Every year, approximately 1,000 middle school students receive risk avoidance and self-assertiveness decision making education taught by 175 trained high school teen mentors. Elkhart General Hospital staff play a lead role in advocating for and supporting schools-based childhood obesity prevention efforts. Every year, various community-based cancer awareness and screening activities focused on low income and uninsured populations are led by EGH Community Outreach in a concerted effort to educate on and identify cancer at the earliest possible stage to offer the best long term prognosis. Throughout the year, EGH Community Outreach has collaborated on various health screenings, education events, broad-based radio and print education, and other interactive efforts.

It is critical to underscore the importance of community partners who readily rise to the challenge as community health programming efforts are identified and planned. The success of all of these community based efforts hinges on the engagement of EGH's multiple established community partnerships local public health, education, faith community, social service, emergency relief agencies, media, and the business community.

Community Health Enhancement (CHE) supports and participates in several alliances engaged in multi-year projects (e.g., Leeper Park/Madison School, Fetal and Infant Mortality Review Teams, ACE Interface Network) to build collective impact over time. CHE has also been able to scale its work toward a larger audience in two areas. First, CHE's School Health and Wellness Educator Team offers courses in brain health, decision making, and sexual health to over 3,500 students. Their outcomes in 2016 indicate that students who have experienced all three years of the Draw the Line/Respect the Line curriculum have lower rates of sexual engagement in high school (Maternal Health priority). Second, the North Central Indiana Sickle Cell Initiative is increasing its educational sessions and sickle cell trait testing opportunities to St. Joseph County and 29 surrounding counties.

As we examine the progress made in 2016 by Beacon efforts in both Elkhart and St. Joseph counties, we realize the value in using our joint resources to strategically

influence the three priority areas we share in common: Access to Care, Maternal/Infant Health, and Obesity/Overweight. In 2016, our individual efforts in Maternal/Infant Health achieved comparable goals using similar approaches. This does not mean that either program is unnecessary, but collaborating together could exponentially increase outcomes and help Beacon Community Health achieve greater impact across the region.

Both counties face similar challenges in achieving goals under the Access to Care and Obesity/Overweight priorities. In 2017, both communities could benefit from tackling those challenges together. Each county's efforts represent years of experience facing similar issues, so collegial conversations across the region can only help efforts to make progress in these two important areas.

Across the health industry, professionals are being increasingly paid to keep people well, but most of that happens outside the examination room. The shift to wellness makes our community benefit/public health work even more important and valuable. As Community Health moves forward, we will continue to use data and outcomes to measure our progress, strengthen existing programs and alliances, and select new initiatives to address the identified CHNA needs in our communities and region for the purpose of positively influencing population health.

# Appendix A: Elkhart Community Outreach Goals Comparison Grid

## Access to Care and Uninsured

Beacon & CKF Outreach Navigators		
Elkhart/Elkhart County Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase the percentage of insured individuals with a primary care provider (PCP) by 10%	Increase the percentage of health insurance coverage from 83.4% to 100% of adults 18 to 64 years' old	Increase the proportion of persons with a usual primary care provider from 76.3% to 83.9%
Increase total number of individuals attending enrollment sessions and/or outreach events by 10%	Expand and strengthen statewide and local grassroots network	Increase the proportion of persons with medical insurance from 83.2% to 100% total coverage
Increase the percentage of individuals who choose a healthcare plan following a session by 10%	Be the state's strongest resource for facilitating health coverage enrollment	
Increase the percentage of individuals enrolling in health insurance that have a primary care provider (PCP) by 10%	Be a statewide recognized expert and strong voice on healthcare coverage issues	
Increase number of enrollment sessions 10%		
Increase the estimated total amount of savings on medications		

## Maternal, Infant Health, & Prenatal Care

Perinatal and Infant Health		
Elkhart/Elkhart County Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase the percent of mothers who receive prenatal care in the first trimester to 70%	Reduce the infant mortality rate from 7.1 per 1,000 live births	Reduce the rate of all infant deaths (within 1 year) from 6.7 to 6 per 1,000 births
Increase the percent of mothers who stop smoking prior to delivery to 55%	Decrease births (%) where mother smoked during pregnancy from 15.1% in 2014	Increase abstinence from cigarette smoking among pregnant women from 89.6% to 98.6%
Less than 8.7% of infants are born preterm (less than 37 weeks gestational age)	Reduce births considered premature (<37 weeks) to 9.7% or below	Reduce total preterm births from 12.7% to 11.4%
Decrease the percent of infants born to mothers that weighed less than 2500 grams to 9%	Reduce the rate of infants born with low birth weight to 8% or less	Reduce the rate of infants born with low birth weight from 8.2% to 7.8%
Increase the percent of mothers who are breastfeeding at hospital discharge during the fiscal year to 80%		Increase the proportion of infants who are breastfed from 74% to 81.9%
Increase the percent of mothers who practice safe sleep at time of post partum encounter to 80%		

## Obesity

Obesity Education and Case Management		
Elkhart/Elkhart County Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Reduce the obesity rate of program participants	Reduce a high school obese percentage from 14.7% to 10%	Reduce the proportion of children and adolescents aged 2 to 19 years who are considered obese from 16.1% to 14.5%
Increase reported exercise levels of participants	Increase opportunities for and engagement in regular physical activity	Increase the proportion of adolescents who meet current federal physical activity guidelines for aerobic physical activity from 28.7% to 31.6%
Increase number of participants that reduce their body fat percentage		Increase the proportion of physician office visits that include counseling or education related to physical activity from 12.2 to 15.2%
Increase exercise and healthy food consumption		
Increase physical activity for cohort members		
Increase reported daily consumption of fruits and vegetables of participants		
Decrease reported daily consumption of fats for all participants		
Increase the reported consumption of fresh fruits and vegetables by 3% EGH outpatient population		
Increase the number of patients engaged in active weight loss by 5% (baseline 919 pts July '15 - July '16)		

# Appendix B: Memorial Community Health Goals Comparison Grid

## Access to Care and Uninsured

Beacon & CKF Outreach Navigators		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase the percentage of individuals who choose health insurance following a session by 10%	Increase the percentage of health insurance coverage from 83.4% to 100% of adults 18 to 64 years' old	Increase the proportion of persons with medical insurance from 83.2% to 100% total coverage
Increase the number of insured individuals with a primary care provider (PCP) by 10%	Expand and strengthen statewide and local grassroots network	Increase the proportion of persons with a usual primary care provider from 76.3% to 83.9%
	Be the state's strongest resource for facilitating health coverage enrollment	
	Be a statewide recognized expert and strong voice on healthcare coverage issues	
North Central Indiana Sickle Cell Initiative (NCISCI)		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase access for community members to sickle cell educational sessions and sickle cell trait test opportunities	N/A*	N/A*
Plan and execute Sickle Cell Conferences in three counties – Elkhart, Allen, and Lake counties		
Aging In Place (AIP)		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase percentage of AIP participants who have a primary care provider (PCP)	N/A*	Increase the proportion of persons with a usual primary care provider from 76.3% to 83.9%
Maintain participation rate of community members in health education services provided through AIP		Increase the proportion of persons with medical insurance from 83.2% to 100% total coverage
enFocus – Asthma Pilot		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Identify target population for pilot study	N/A*	N/A*
Train and certify SBFD paramedics as community paramedics		
Begin intervention 1/1/2017		

## Maternal, Infant Health, & Prenatal Care

Perinatal and Infant Health Project (PIHP)		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
All infants born healthy at birth to mothers in PIHP will live through their first birthday	Reduce the infant mortality rate from 7.1 to 6 per 1,000 live births	Reduce the rate of all infant deaths (within 1 year) from 6.7 to 6 per 1,000 births
More than 90% of infants are born with a healthy birth weight (>2,501 grams)	Reduce the rate of infants born with low birth weight to from 8% or less	Reduce the rate of infants born with low birth weight from 8.2% to 7.8%
More than 80% of smoking mothers have reduced or quit smoking by delivery of child	Decrease births (%) where mother smoked during pregnancy from 15.1% in 2014	Increase abstinence from cigarette smoking among pregnant women from 89.6% to 98.6%
Less than 8.7% of infants are born preterm (gestational age <37 weeks)	Reduce births considered premature (<37 weeks) to 9.7% or below	Reduce total preterm births from 12.7% to 11.4%
At least 74.1% of mothers initiate breastfeeding after birth		Increase the proportion of infants who are breastfed from 74% to 81.9%
Healthy Points Perinatal		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Observe and track at least 100 diabetic mothers upon referral to Maternal Fetal Medicine (MFM) until 6 months postpartum	Reduce the infant mortality rate from 7.1 to 6 per 1,000 live births	Reduce the rate of all infant deaths (within 1 year) from 6.7 to 6 per 1,000 births
Display correlation between Healthy Points engagement and stabilized and/or improved clinical indicators, such as birth weight and neonatal intensive care unit admissions	Reduce the rate of infants born with low birth weight to from 8% or less	Reduce the rate of infants born with low birth weight from 8.2% to 7.8%
Display evidence of reduced adverse birth outcomes	Reduce births considered premature (<37 weeks) to 9.7% or below	Reduce total preterm births from 12.7% to 11.4%
Demonstrate business case for program expansion		
Childhood Safety Class & Safe Sleep		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase knowledge of safety techniques for taking care of infants	N/A*	Reduce the rate of all infant deaths (within 1 year) from 6.7 to 6 per 1,000 births
Increase knowledge of sleep practices with infants		



The BABE Program		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase redemption of BABE coupons	N/A*	N/A*
Draw the Line/ Respect the Line (DTL/RTL)		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Less than 30% of students with 3 years of DTL/RTL will engage in sex	N/A*	N/A*
90% of students with 3 years of DTL/RTL will know how to resist peer pressure		
85% of students with 3 years of DTL/RTL will respect the limits of others		
80% of students with 3 years of DTL/RTL will set and respect their own limits		
St Joseph County Health Dept – FIMR		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
FIMR program will identify variables that decrease infant mortality, and more specifically, the racial disparity that exists in our county	N/A*	N/A*

## Obesity

Prescription to Play		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase number of children that were able to reduce their BMI	Reduce a high school obese percentage from 14.7% to 10%	Reduce the proportion of children and adolescents aged 2 to 19 years who are considered obese from 16.1% to 14.5%
Increase number of children who met or exceeded their physical fitness ability goal		Increase the proportion of adolescents who meet current federal physical activity guidelines for aerobic physical activity from 28.7% to 31.6%
Increase the total amount of children who are able to utilize the activities and resources provided by Prescription to Play	Increase opportunities for and engagement in regular physical activity	Increase the proportion of physician office visits that include counseling or education related to physical activity from 12.2 to 15.2%
Madison School/Leeper Park Initiative		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase in number of Madison student trips taken to Leeper park to use its resources	Increase opportunities for and engagement in regular physical activity	Increase the proportion of adolescents who meet current federal physical activity guidelines for aerobic physical activity from 28.7% to 31.6%
Increase physical activity of school children		
Unity Gardens		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase physical activity in youth over week-long Unity Gardens Camp Session	Increase opportunities for and engagement in regular physical activity	Increase the proportion of adolescents who meet current federal physical activity guidelines for aerobic physical activity from 28.7% to 31.6%
Increase in consumption of fruits and vegetables in youth and adults	Increase access to and consumption of healthy foods and beverages	Increase the contribution of total vegetables to the diets of the population aged 2 years and older from .76 to 1.16 cup equivalent per 1,000 calories
HeathWorks! Kid's Museum		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Provide physical activities through the Passport Summer Programming for children and families	Increase opportunities for and engagement in regular physical activity	Increase the proportion of persons with diabetes who meet current federal physical activity guidelines for aerobic physical activity from 28.7% to 31.6%

## Diabetes

Healthy Diabetics (HD)		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Reduce high risk A1C population from 40% to 20% after a 6-9-months in the program	Decrease the total number of adults 18 and older with medically diagnosed diabetes below 10.2%	Reduce the proportion of persons with diabetes with an A1C value greater than 9% from 18.0% to 16.2%
Reduce ED visits and charges after 1 year in HD		
Increase savings from hospital avoidance due to community health worker intervention		

YMCA Diabetes Prevention Program		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Help 50% of participants achieve their physical fitness goal of 150 minutes of total physical activity/per week during the program	N/A*	Increase the proportion of persons at high risk for diabetes with prediabetes who report increasing their levels of physical activity from 44.6% to 49.1%
Help 50% of participants achieve their weight loss goal of losing 7% of their starting body weight within 12 months		Increase the proportion of persons at high risk for diabetes with prediabetes who report trying to lose weight 50% to 55%
HD Diabetes Prevention Program		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Help 50% of participants achieve their physical fitness goal of 150 minutes of total physical activity/per week during the program	N/A*	Increase the proportion of persons at high risk for diabetes with prediabetes who report increasing their levels of physical activity from 44.6% to 49.1%
Help 50% of participants achieve their weight loss goal of losing 7% of their starting body weight within 12 months		Increase the proportion of persons at high risk for diabetes with prediabetes who report trying to lose weight 50% to 55%

### Mental Health and Suicide

St. Adalbert's EMDR Therapy		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Reduce emotional distress in K-8 students recommended for school counseling	N/A*	N/A*
Increase GPA in students who receive EMDR		
Increase attendance in students who receive EMDR		
Decrease tardiness in students who receive EMDR		
JJC Programs: Reading for Life, Drumbeat, The 360 Program		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Improve JJC program participants' indicators that show sign of depression or anxiety	Decrease the suicide death rate from 14.4 to 10 per 100,000 in the population	Reduce the proportion of adolescents aged 12-17 who experience a major depressive episode from 8.3 to 7.5
Improve resiliency of JJC program participants		Reduce suicide attempts by adolescents from 1.9 to 1.7 per 100 population
		Reduce the suicide rate from 11.3 to 10.2 per 100,000 population
Mind Up		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Increase resiliency for Mind Up Program participants	N/A*	N/A*
Increase the percentage of students who demonstrated improvement on the post intervention knowledge assessment for resiliency skills		
Aging in Place		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Engage 81% of participants in socio-emotional activities	Reduce the number of adults 18 and older without social or emotional support to below 19.1%	Reduce the proportion of adults aged 18 years and older who experience major depressive episodes (MDEs) from 6.5% to 5.8%
Increase socio-emotional quality of life		

### Violence, Safety, and Trauma

Trauma Intervention Specialist (TIS)		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Contact 60% of victims of violence who utilize the Emergency Department	N/A*	N/A*
Reduction of recidivism in regards to victims of violence cared for at Memorial		
To formulate a process which provides violently injured patients and their family members support, violence education and knowledge of useful community resources available to them post hospitalization		
To act as an advocate (support/resource) for violently injured patients and their families		
Assess adverse childhood event scores for 30% of victims of violence		

ACE Interface		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Build a network of ACE Interface Trainers	N/A*	N/A*
Create a trauma informed community by changing individual attitudes about what trauma is, how it influences brain development, behavior, health outcomes, and crime, and how to respond to individuals who have experienced trauma		
South Bend Group Violence Initiative		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Decrease group member shooting incidents	Reduce the number of violent crimes to below 345 per 100,000 population	Reduce the percentage of children's exposure to violence from 58.9% to 53.0%
Decrease the number of criminally assaulted shooting victims		
Community Resilience Center Project for Addressing Childhood Trauma		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Build resilience in minority and disadvantaged youth ages 7-12 in program through Penn Resilience Program training (May 2017)	N/A*	N/A*
Improved academic development of youth 7-12 in program through improved school performance		
Increased positive parental/guardian		
Interactions with youth program		
EMDR Training-Social Work Interns in Trauma Department		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Reduce emotional distress in clients with qualifying levels of post-trauma symptoms (PCL or DSM criteria)	N/A*	N/A*
After-school programming to youth 7-12 through the 5-year ACT grant		
South Bend / SJC Goals	IN State Department of Health Goals	Healthy People 2020 Goals
Decrease major depressive episodes	N/A*	N/A*
Decrease symptoms among participants who experience depression		



Elkhart General Hospital



Memorial Hospital South Bend



Memorial Children's Hospital



# BEACON<sup>TM</sup>

## HEALTH SYSTEM

*Beacon Health System exists to enhance the physical, mental, emotional and spiritual well-being of the communities we serve.*