WellFlorida Council
Working Together for Healthy Communities

THE VILLAGES REGIONAL HOSPITAL

NEEDS ASSESSMENT FY 2015

Acknowledgements

Contents

Introduction to Community Health Needs Assessments

GENERAL

The Affordable Care Act establishes specific statutory requirements that hospitals must meet to qualify as organization described in Section 501(c)(3) of the Internal Revenue Code and allow them to be exempt from federal income tax. As part of the new IRS requirements, hospitals must conduct a Community Health Needs Assessment (CHNA) to serve as an essential tool for developing a health improvement plan for the community the hospital serves. A community health needs assessment poises hospitals as leaders who have identified the health needs of their communities and are working towards solutions to meet those needs. The statutory requirements specified in the Affordable Care Act state:

- Each hospital facility must conduct a Community Health Needs Assessment at least once every three tax years and adopt an implementation strategy to meet the community health needs identified through the assessment
- The Community Health Needs Assessment must take into account input from persons who represent the broad interests of the community serviced by the hospital facility; including those with special knowledge of or expertise in public health
- Must be made widely available to the public
- Each hospital must disclose in Form 990 how it is addressing all of the needs identified in the assessment and if not, why not

A Community Health Needs Assessment serves as a systematic approach to collecting, analyzing and utilizing data to identify priority areas for improving health. Hospitals use this report as a call to action, engaging community members through public awareness messages, creating effective programs and policies and collaborating with other organizations to bring positive change to their community. The long-term goal of a Community Health Needs Assessment is to identify health priorities and develop impact strategies with all health-related stakeholders in the community.

COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS

This Community Health Needs Assessment is the continuation of Central Florida Health's dedication to community health assessment work. Central Florida Health (formerly known as Central Florida Health Alliance is a not-for-profit family of hospitals including Leesburg Regional Medical Center and The Villages Regional Hospital. A separate CHNA was completed for each hospital.

Central Florida Health) engaged the services of WellFlorida Council to complete the 2015-2016 Community Health Needs Assessment for The Villages Regional Hospital and Leesburg Regional Medical Center. This report serves as the CHNA for The Villages Regional Hospital Service Area. WellFlorida Council is the statutorily designated (F.S. 408.033) local health council that serves north central Florida, including the Central Florida Health service areas of Lake, Marion and Sumter counties along with thirteen other counties. The mission of WellFlorida Council is to forge partnerships in planning, research and service that build

healthier communities. WellFlorida achieves this mission by providing communities the insights, tolls, and services necessary to identify their most pressing issues (e.g. community health assessments and community health improvement plans) and to design and implement approaches to overcoming those issues.

The Central Florida Health Steering Committee and WellFlorida based the 2015-2016 CHNA effort on a nationally recognized model and best practice for completing health assessments and improvement plans called Mobilizing for Action through Planning and Partnerships (MAPP). The MAPP tool was developed by the National Association of City and County Health Officials (NACCHO) in cooperation with the Public Health Practice Program Office, Centers for Disease Control and Prevention (CDC). NACCHO and CDC's vision for implementing MAPP is:

> *"Communities achieving improved health and quality of life by mobilizing partnerships and taking strategic action."*

At the heart of the MAPP process are the four core MAPP assessments. These are:

- Community Health Status Assessment (CHSA)
- Community Themes and Strengths Assessment (CTSA)
- Forces of Change Assessment (FCA)
- Local Public Health System Assessment (LPHSA)*

These four MAPP assessments work in concert to identify common themes and considerations in order to hone in on key community health needs. Three of the four MAPP assessments are fully integrated into the 2016 CHNA. Please note, this document is a health needs assessment and its purpose is to uncover or substantiate the health needs and health issues in the service area. This report will not establish priority goals and objectives for addressing these issues or create a strategic plan for achieving those goals and objectives. These are the next phases of the MAPP process referred to as the Community Health Improvement Plan (CHIP).

*The Local Public Health System Assessment was omitted from this process given that it is typically completed and facilitated by the local health department. The LPHSA measures how well the local public health system (county-level) delivers the 10 Essential Public Health Services. Each county health department is required to complete the LPHSA every five years.

The Villages Regional Hospital Service Area Community Health Needs Assessment Report 2015-2016 serves as the follow-up to the Community Health Needs Assessment Report completed in 2012. The Villages Regional Hospital (VRH) service area includes one zip code from Lake County, one zip code from Marion County and two zip codes from Sumter County. The Lake County zip code is Lady Lake 32159 (32158 Post Office), the Marion County zip code is Summerfield 34491 (34492 Post Office), and the Sumter County zip codes are The Villages 32162 (32163 Post Office) and Wildwood 34491. The zip code areas chosen were based on the top 75% of discharges from the hospital during the 2014 fiscal year. The culmination of this assessment was a 7 month process beginning in August 2015 and completing in March 2016.

ORGANIZATION OF THE COMMUNITY HEALTH NEEDS ASSESSMENT REPORT

The Villages Regional Hospital Service Area Community Health Needs Assessment is comprised of the following main sections:

- Executive Summary: This section includes an overview of the CHNA process; description of the organization of the CHNA report; insights on using the CHNA; and a brief synopsis of the common themes and considerations identified in the needs assessment.
- Community Health Status: This section is in essence the Community Health Status Assessment which is one of the four core MAPP assessments. Detailed in this section are demographic and socioeconomic factors, and mortality and morbidity indicators that describe the overall health status of The Villages Regional Hospital service area as compared to Florida.
- Community Themes and Strengths: This section provides qualitative perspective on health issues and the health system from the community at-large, and fulfills the statutory requirement of taking into account input from persons representing the broad interests of the community serviced by the hospital facility which also fulfills the MAPP requirement of receiving community input on the health needs of the community. The Community Themes and Strengths section is comprised of key insights and themes from the Business Leader Survey, Community Member Survey, and the Physician Survey.
- Forces of Change: This section provides qualitative perspective on trends, factors or events that are or will be influencing the health and quality of life in the community and the work of the community to improve health outcomes.
- Recommendations and Next Steps: This section begins with a brief summary of the intersecting themes that cut across all sections of the CHNA and some of the key considerations generated from these common themes. Following the summary of these themes and considerations, this section details some general suggestions about how to move forward with the identified needs; provides some specific examples of approaches to address these needs; and discusses some community organizations principals that will need to be addressed to ensure that true community health improvement is realized.

USING THE COMMUNITY HEALTH NEEDS ASSESSMENT

The Villages Regional Hospital Service Area Community Health Needs Assessment Report 2015-2016 is designed so that the three major sections: Community Health Status, Community Themes and Strengths, and Forces of Change address the three core MAPP assessments that are designated as key components of this community health needs assessment as designed by NACCHO and CDC. The identification of global health needs of the community comes from an analysis of the intersecting themes in each of these sections. Overall, the main objectives of this CHNA are the following:

- To accurately depict The Villages Regional Hospital Service Areas' key health issues based on common themes from the three MAPP assessments;
- To identify potential strategic issues and some potential approaches to addressing those issues;
- To provide insight and input to the next phase of the MAPP assessment/improvement process;

- To provide the community a rich data resource not only for the next phase of the improvement process, but also for ongoing resource and program development and implementation as well as evaluation of community health improvement.

While The Villages Regional Hospital Service Area Community Health Needs Assessment Report, 2016 (VRH CHNA) is undoubtedly a stand-alone document, the Report has been designed to work in concert with the accompanying Technical Appendix. The Villages Regional Hospital Service Area Community Health Needs Assessment Report, 2016 presents data and issues at a higher more global level for the community, all of the data in TVRH CHNA is also included, often in more granular level detail, in the Technical Appendix. Thus, for most data that are briefly addressed in this report, the Technical Appendix presents these data in a very fine level of detail breaking data sets down, for example, by zip code, race, ethnicity, gender, etc., where appropriate and when available. The Technical Appendix is an invaluable companion resource to The Villages Regional Hospital CHNA, and it will allow the community to dig deeper into the issues identified to more readily understand the issues and where or for whom in the community these issues may be more pervasive.

The Technical Appendix is comprised of more than 240 tables, graphs, maps and supporting material across nearly 900 pages. The Technical Appendix is organized into the following major data sections:

- Demographics and Socioeconomics
- Mortality
- Mental Health
- Maternal and Infant Health
- Health Behaviors
- Infectious Diseases
- Health Care Access and Utilization
- State Concerns
- Survey Responses

Please note that many of the data tables in this CHNA Report and in the Technical Appendix contain standardized rates for the purpose of comparing Lake, Marion and Sumter counties to the state of Florida as a whole. It is advisable to interpret these rates with caution when incidence rates are low; thus small variations from year to year can result in substantial shifts in the standardized rates.

KEY OBSERVATIONS

Presented below, are the intersecting themes which, in essence, comprise an overview of the major health needs/issues in TVRH Service Area. Following the intersecting themes are the key considerations which are the potential strategic areas of opportunity identified as a result of this community health needs assessment.

INTERSECTING THEMES/HEALTH NEEDS AND ISSUES

- Social Determinants (identified in Health Factors data in Community Health Status Assessment and FCA observations)
  - Lower Income
  - Higher Poverty (among certain sub-populations)
  - Lower Educational Attainment
  - Lower County Health Rankings Compared to Florida
- Health Status Measures (identified in Health Factors data in Community Health Status data; FCA observations and Community Perspectives via Community Health Surveys and FCA observations)
  - Overweight/Obesity, Poor Eating Habits and Physical Inactivity Fueling Chronic Disease Issues
  - Heart Disease, Cancer, Diabetes and Stroke Death
  - Health Outcome Disparities among Race and Ethnicities
  - Health Outcome Disparities Geographically
  - Many Poor Health Behaviors as Measured by CDC's Behavioral Risk Factor Surveillance Survey (BRFSS)
  - Lower County Health Rankings Compared to Florida
  - Very Homogenous Aging Population
  - Higher Incidence of Mental Health Issues Compared to Florida as a Whole
- Healthcare Access and Utilization (identified in Health Factors data in Community Health Status data; FCA observations and Community Perspectives via Community Health Surveys and FCA observations)
  - Inappropriate Utilization of Healthcare Services
  - Shortages of Primary Care
  - Shortages of Mental Health Care
  - Over-Utilization of Healthcare Services (i.e. Emergency Department)
  - Lower Levels of Physician Availability
  - High Rates of Readmissions

Community Health Status

INTRODUCTION

The Community Health Status section represents the results of the Community Health Status Assessment (CHSA) which is one of the four core MAPP assessments for community health needs assessment and community health improvement planning. This section is primarily extracted from the companion Technical Appendix document. The data in this section and in the Technical Appendix were compiled and tabulated from multiple sources including, but not limited to, the United States Census Bureau; The Centers for Disease Control and Prevention; The Behavioral Risk Factor Surveillance System (BRFSS); the Florida Department of Health's Office of Vital Statistics; the Florida Agency for Health Care Administration (ACHA); the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation. Data was also obtained from The Villages Regional Hospital.

Many of the data tables in this section and in the Technical Appendix report contain standardized rates for the purpose of comparing The Villages Regional Hospital Service Area to Florida as a whole. It is advisable to interpret these rates with caution when incidence rates are low (the number of cases are small); thus small variations from year to year can result in substantial shifts in the standardized rates. The data presented in this summary include references to specific tables in the report so that users can see the numbers and the rates in context.

DEMOGRAPHICS AND SOCIOECONOMICS

As population dynamics (variations in the overall composition of a population) change over time, so do the health and healthcare needs of communities. Therefore, it is important to review specific indicators, including demographic and socioeconomic factors, to understand a community's current health status, pressing healthcare issues, and disparities. The following section provides a summary of population distribution (including age, gender, and race/ethnicity) and estimates related to the future growth of the population. Also included, are measures of education, poverty status, employment, and income. Noted below are key findings from The Villages Regional Hospital (TVRH) Service Area demographic and socioeconomic profile.

POPULATION

Population growth is a key determinant of the necessary healthcare services a community requires to be able to sustain positive health behaviors and effective health outcomes. TVRH Service Area primarily serves an adult population greater than 55 years of age (70.2%), compared to the 62.1% the Central Florida Health (CFH) Service Area and 29.7% Florida serve (Table 12, Technical Appendix). TVRH Service Area also serves a smaller percentage (7.1%) of adolescents (0-17 years old), compared to the CFH Service Area (9.6%) and Florida (21.0%) (Table 22, Technical Appendix).

As seen in Figure 1, the overwhelming majority of TVRH Service Area population is White (89.8%), compared to the CFH Service Area and Florida, with a smaller White population (87.3% and 75.0%,

respectively) (Table 9, Technical Appendix). Furthermore, the Black, American Indian and Alaska Native, and Asian only population comprise 6.8%, 0.3%, and 0.8% of TVRH Service Area, respectively, while 1.3% identify themselves as another race and 1.0% identify as having two or more races. Lastly, 94.5%, of the population in TVRH Service Area identify as "non-Hispanic or Latino," which is comparable to the percentage of "non-Hispanics or Latinos" in the CFH Service Area, but greater than the state of Florida (77.5%) (Table 10, Technical Appendix).

FIGURE 1. TVRH SERVICE AREA POPULATION ESTIMATES BY RACE, 2009-2013
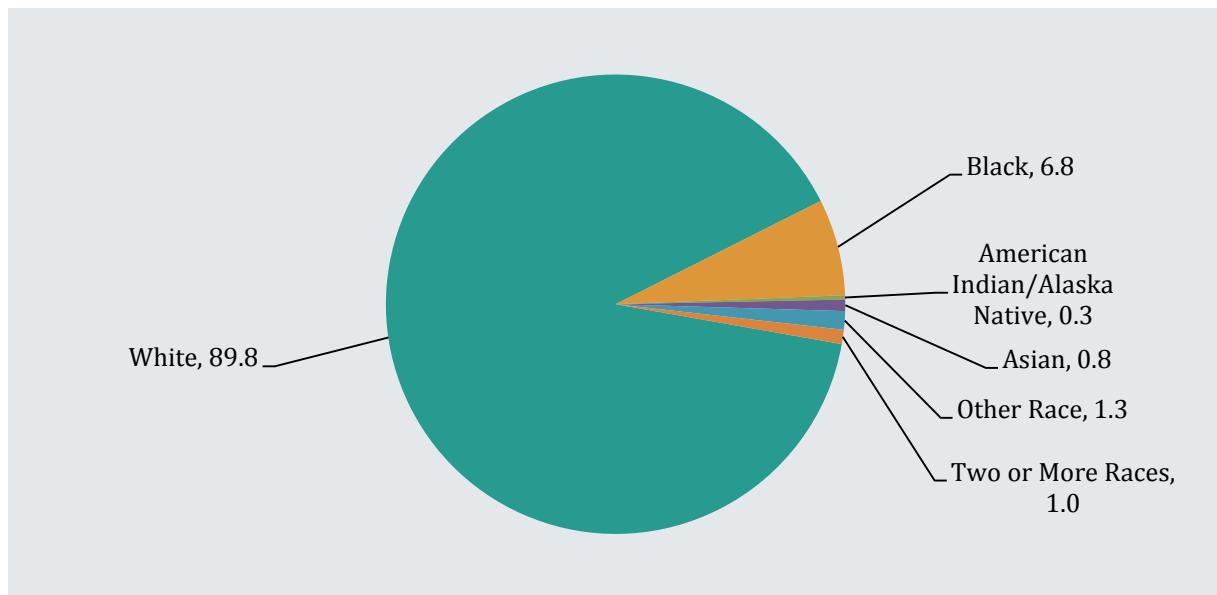
Source: Table 9, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

LIFE EXPECTANCY

Considering all races and ethnicities, the greatest life expectancy for males in 2010 was in Sumter County (78.3 years) followed by Lake County (75.8 years), and Marion County (74.3 years), compared to Florida (76.3 years) (Tables 4-6). Similarly, the greatest life expectancy for females in 2010 was in Sumter County (82.5 years), followed by Lake County (81.3 years), and Marion County (80.3 years), compared to Florida (81.6 years) (Table 1).

TABLE 1. LIFE EXPECTANCY BY GENDER, RACE AND YEAR, 2010

County	Year	Males			Females		
		All	White	Black	All	White	Black
Lake	2008	77.1	77.6	71.5	83.2	83.5	79.1
Marion	2008	74.0	74.7	68.3	80.6	81.1	76.5
Sumter	2008	74.1	74.7	75.4	79.4	79.8	75.4
Florida	2008	76.1	76.5	72.0	81.9	82.3	78.5
Lake	2009	77.5	78.0	72.0	83.2	83.6	79.2
Marion	2009	74.2	74.9	68.9	80.8	81.3	76.9
Sumter	2009	73.5	74.1	75.1	78.8	79.2	75.1
Florida	2009	76.5	76.9	72.7	82.1	82.6	78.8
Lake	2010	75.8	NA	NA	81.3	NA	NA
Marion	2010	74.3	NA	NA	80.3	NA	NA
Sumter	2010	78.3	NA	NA	82.5	NA	NA
Florida	2010	76.3	NA	NA	81.6	NA	NA

Source: Tables 4-6, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

As commonly seen throughout the state of Florida, there is a greater disparity in life expectancy in the Black population as compared to the White population in TVRH Service Area (Table 1).

ECONOMIC CHARACTERISTICS

Compared to Florida (16.3%) and the CFH Service Area (11.2%), TVRH Service Area (9.1%) has a substantially lower percentage of individuals living in poverty (Table 39, Technical Appendix). Considering the zip codes associated with TVRH Service Area, the estimated percentage of poverty is highest in Wildwood (19.1%) and lowest in The Villages (5.0%) (Table 40, Technical Appendix). Across all three counties within TVRH Service Area, Marion County has the most individuals living in poverty (18.1%), which is higher than the state of Florida (16.3%) by a difference of 11.0%, compared to Lake County (13.8%) and Sumter County (12.0%), which are lower than Florida by a difference of 15.3% and 26.4%, respectively (Table 39, Technical Appendix).

The percentage of males living in poverty in TVRH Service Area (8.3%) remains lower than the CFH Service Area (10.7%) and the state of Florida (15.3%). Similarly, the percentage of females living in poverty in the LRMC Service Area (9.8%) remains lower than the CFH Service Area (11.7%) and the state of Florida (17.3%) (Table 39, Technical Appendix). There are more females living in poverty in Marion County (19.1%) compared to Florida (17.3%), and similarly, more males living in poverty in Marion County (17.0%) compared to Florida (15.3%) (Table 39, Technical Appendix).

There are a greater number of children (0-17 years of age) than adults (18-64) and elderly (65+) living in poverty in TVRH Service (29.1%) when compared to both the CFH Service Area (28.9%) and Florida (23.6%) (Table 39, Technical Appendix). As seen in Figure 2, the greatest numbers of children living in poverty are in Sumter County and Marion County (31.4% and 29.4%, respectively) compared to Lake

County (21.4%) and Florida (23.6%) (Table 39). There are a smaller percentage of elderly (65 -74 years of age) living in poverty across Lake County, Marion County, and Sumter County (6.6%, 7.8%, and 3.9%, respectively) compared to Florida (9.6%).

FIGURE 2. ESTIMATED NUMBER AND PERCENT OF INDIVIDUALS BY AGE IN POVERTY IN THE PAST 12 MONTHS, CENTRAL FLORIDA HEALTH COUNTIES AND FLORIDA,2009- 2013
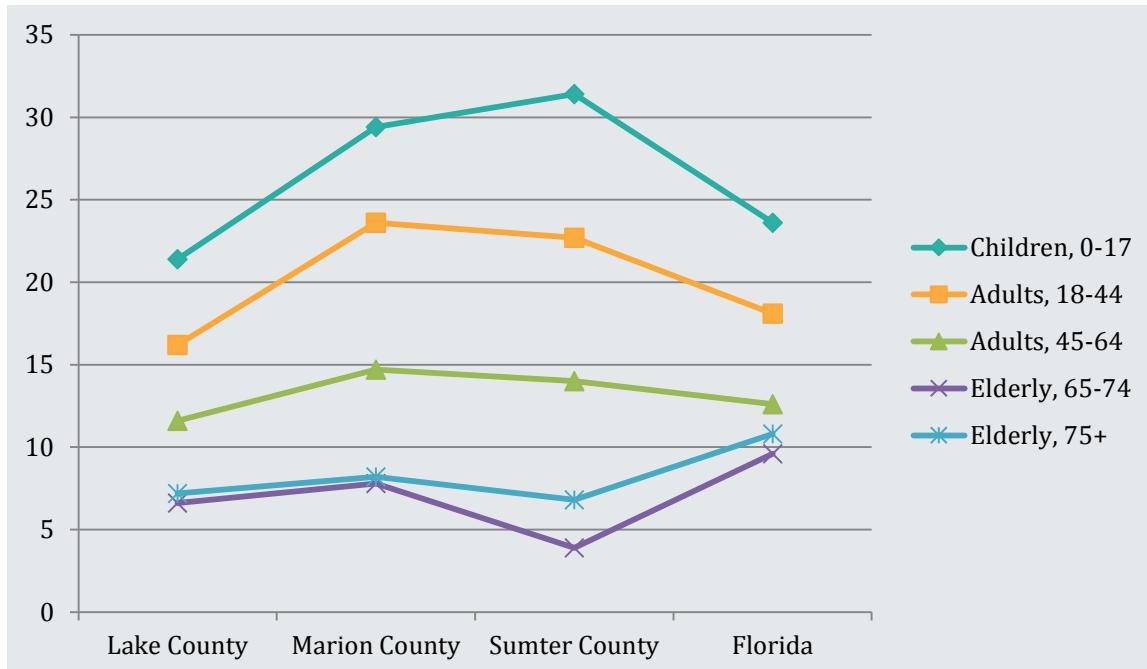
Source: Table 39, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

The percentage of the Black population living in poverty in TVRH Service Area (25.0%) is lower than the CFH Service Area and Florida (30.6% and 28.2%, respectively) (Table 39, Technical Appendix). Similarly, the percentage of the White population living in poverty in TVRH Service Area (8.2%) is lower than the CFH Service Area (9.4%) and Florida (13.6%) (Table 39, Technical Appendix). As seen in Table 2, the percentage of the Black population (24.3% in Lake County, 31.1% in Marion County, and 33.3% in Sumter County) living in poverty is greater than the percentage of the White population (12.5% in Lake County, 15.6%, and 10.6% in Sumter County).

TABLE 2. ESTIMATED NUMBER AND PERCENT OF INDIVIDUALS BY RACE IN POVERTY IN THE PAST 12 MONTHS, CENTRAL FLORIDA HEALTH COUNTIES AND FLORIDA,2009- 2013

Area	White	Black
Lake County	12.5	24.3
Marion County	15.6	31.1
Sumter County	10.6	33.3
Florida	13.6	28.2

Source: Table 39, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

While the per capita income in Sumter County ($27,504) is slightly higher than Florida ($26,236), the per capita income in Lake County ($24,183) and Marion County ($21,992) is less than Florida (Table 3). The median household income in Lake County ($45,035) and Marion County ($39,453) is less than Florida ($46,956), while Sumter County ($48,493) is greater (Table 3).

TABLE 3. PER CAPITA INCOME AND MEDIAN HOUSEHOLD INCOME FOR CENTRAL FLORIDA HEALTH COUNTIES AND FLORIDA, 2013

Various Household Information	2009-2013 ACS Estimates			
	Lake County	Marion County	Sumter County	Florida
Per Capita Money Income In the Past 12 Months (All Races)	$ 24,183	$ 21,992	$ 27,504	$ 26,236
Median Household Income (All Races)	$ 45, 035	$ 39,453	$ 48,493	$ 46, 956

Source: Table 47, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

EDUCATIONAL ATTAINMENT

In 2013, of the population greater than 25 years of age in TVRH Service Area, 56.1% have at most a high school diploma compared to the CFH Service Area (58.6%) and Florida (50.8%) (Table 63, Technical Appendix). Compared to Florida (13.9%), 9.9% of TVRH Service Area and 10.7% of the CFH Service Area have less than a high school diploma (Table 63, Technical Appendix). It is notable that when compared to Florida (35.3%), both TVRH Service Area (34.1%) and the CFH Service Area (30.6%) have a smaller percentage of college graduates (Table 63, Technical Appendix).

MORTALITY AND MORBIDITY

The rates of mortality and morbidity are often referred to as the most direct measures of health and well-being of a community. To gain a better understanding of the current health status of TVRH Service Area population, the prevalence of diseases and quality of life were thoroughly examined. Below, are some key facts related to the rates of mortality and morbidity in TVRH Service Area.

CAUSES OF DEATH

- The overall top 5 leading causes of death in TVRH Service area are: 1) Cancer, 2) Heart Disease, 3) Unintentional Injuries, 4) Chronic Lower Respiratory Disease (CLRD) and 5) Stroke. Although in a different order, the top 5 leading causes of death for TVRH Service Area are comparable to the CFH Service Area and Florida's top five leading causes of death (Table 4).

TABLE 4. AGE ADJUSTED DEATH RATES PER 100,000 POPULATION FOR ALL RACES FOR TOP CAUSES OF DEATH BY SERVICE AREA AND FLORIDA, 2009-2014

County	TVRH		CFH		Florida	
	Average Number of Deaths	Age Adjusted Death Rate Per 100,000 Population	Average Number of Deaths	Age Adjusted Death Rate Per 100,000 Population	Average Number of Deaths	Age Adjusted Death Rate Per 100,000 Population
Cancer	554	159.2	869	156.1	41,667	155.7
Heart Disease	468	135.9	768	139.0	42,150	152.2
Unintentional Injuries	118	67.6	199	61.5	8,653	39.5
Chronic Lower Respiratory Disease (CLRD)	110	28.3	188	29.8	10,916	39.4
Stroke	90	22.3	153	24.8	8,789	31.7

Source: Tables 74-78, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

- As seen in Table 4, the age-adjusted death rates (per 100,000 population) for the top 5 causes of death in TVRH Service Area are less than the age-adjusted death rates for the CFH Service Area and Florida, respectively, with the exception of Cancer and Unintentional Injuries (Table 4).

Disparity:

- Wildwood has the highest age-adjusted death rate (per 100,000 population) for Cancer (200.0), Heart Disease (193.7), CLRD (47.5), and Stroke (33.4) (Tables 74, 75, 78 and 79, Technical Appendix).
- Summerfield has the highest age-adjusted death rate (per 100,000 population) for Unintentional Injuries (84.6) (Table 76, Technical Appendix)

TABLE 5. TOP CAUSES OF DEATH BY RACE FOR TOP CAUSES OF DEATH BY SERVICE AREA AND FLORIDA, 2012-2014

Rank of Cause of Death	TVRH SA Ranking				CFH SA Ranking			
	AR	WR	BR	H	AR	WR	BR	H
1	Cancer	Cancer	Cancer	Heart Disease	Cancer	Cancer	Cancer	Heart Disease
2	Heart Disease	Heart Disease	Heart Disease	Cancer	Heart Disease	Heart Disease	Heart Disease	Cancer
3	Unintentional Injury	Unintentional Injury	CLRD	Unintentional Injury	Unintentional Injury	Unintentional Injury	Diabetes	Unintentional Injury
4	CLRD	CLRD	Stroke	Stroke	CLRD	CLRD	Unintentional Injury	Stroke
5	Stroke	Stroke	Diabetes	CLRD	Stroke	Stroke	Stroke	CLRD
6	Diabetes	Diabetes	Unintentional Injury	Diabetes	Diabetes	Alzheimer's Disease	CLRD	Diabetes
7	Alzheimer's Disease	Alzheimer's Disease	Nephritis	Nephritis	Alzheimer's Disease	Diabetes	Nephritis	Liver Disease
8	Parkinson's Disease	Parkinson's Disease	Alzheimer's Disease & HIV & Liver Disease & Suicide (All 4 Tied)	Alzheimer's Disease & Parkinson's Disease (Both Tied)	Parkinson's Disease	Parkinson's Disease	HIV	Alzheimer's Disease & Nephritis & Other Disorders of Circulatory System (All 3 Tied)
9	Other Disease of Respiratory System and Suicide (Both Tied)	Other Disease of Respiratory System			Liver Disease	Liver Disease	Hypertension & Liver Disease & Perinatal Conditions (3 Tied)	
10		Suicide			Influenza and Pneumonia	Influenza and Pneumonia		

*AR=All Races, WR= White Race, BR= Black Race, H= Hispanic

Source: Tables 72, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

Racial and ethnic disparity:

- In TVRH Service Area, the top two causes of death for All Races, Whites, Blacks, and Hispanics are parallel to the CFH Service Area (Table 5).

- In both service areas, the **White population** is affected by Alzheimer's and Parkinson's Disease more than any other race. While suicide is one of the top ten causes of death for Whites in TVRH Service Area, it is not a leading cause of death for Blacks or Hispanics in either service area. Furthermore, in the CHFA Service Area, Whites are affected by Influenza and Pneumonia greater than Blacks and Whites, respectively (Table 5).

- Compared to the White population, diabetes is a more frequent cause of death for the **Black population**, especially for the CFH Service Area as a whole. Unintentional Injury, as a cause of death, ranks lower for Blacks in comparison to Hispanics and Whites, respectively, in each service area. Compared to the CFH Service Area, CLRD affects the Black population more frequently in TVRH Service Area. Furthermore, in the CFH Service Area, HIV is documented as a leading cause of death for Blacks only. Lastly, Nephritis, as a leading cause of death, is less prevalent among the White population, when compared to Blacks and Hispanics (Table 5).
- In both service areas, the two top leading causes of death for **Hispanics** (Heart Disease followed by Cancer) are in reverse order for Whites and Blacks. In the CFH Service Area, Liver Disease is documented as a leading cause for Hispanics only. Compared to the CFH Service Area, Nephritis, as a leading cause of death, ranks higher in TVRH Service Area (Table 5).

BEHAVIORAL RISK FACTORS

The presence of good health behaviors and the absence of poor health behaviors is the cornerstone of a healthy community. Because of this, the national and state governments have invested substantial resources to understanding the health behaviors of residents throughout the United States both at the state and county level. This Behavioral Risk Factors section details selected health behaviors that regardless of source, are based primarily on the national, state, and county-level surveys of behavior conducted as part of the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System.

Note: Due to the lack of data available at a zip code level, therefore being able to clarify TVRH Service Area with greater efficacy, BRFSS Indicators are summarized at a county-level as a substitute.

ALCOHOL CONSUMPTION

The percentage of adults who engage in heavy or binge drinking has decreased in Lake County (15.9% to 14.5%) and Marion County (11.5% to 10.8%) from 2010 to 2013 by a difference of 8.8% and 6.1%, respectively. In Sumter County, this percentage has increased from 2010 (7.8%) to 2013 (15.1%) by a percent change of 93.6% (Tables 123-125, Technical Appendix). As of 2013, the current percentage of adults who engage in heavy or binge drinking in Lake County (14.5%), Marion County (10.8%) and Sumter County (15.1%) is less than Florida (17.6%) (Tables 123-125, Technical Appendix).

CANCER SCREENINGS

Since 2010, the percentage of women who reported receiving a Pap test in the past year decreased in Lake County 58.1% to 44.3% (a percent change of 23.8%) (Table 123, Technical Appendix) and in Sumter County 60.1%to 44.2% (a percent change of 26.6%) (Table 125, Technical Appendix). Additionally, the percentage of women 18 years of age and older in Lake County who reported receiving a clinical breast exam in the past year decreased from 69.2% to 56.5% (a percent change of 18.4%) (Table 123, Technical Appendix). As of 2013, the percentage of women who reported having a hysterectomy in Lake County (30.8%), Marion County (31.6%) and Sumter County (33.8%) was higher than the state of Florida (24.7%) by a difference of 24.7%, 27.9% and 36.8%, respectively (Tables 123-125, Technical Appendix).

HIV/AIDS

Since 2013, the percentage of adults (less than 65 years of age) who have ever been tested for HIV in Lake County (46.4%), Marion County (44.7%), and Sumter County (38.5%) are each lower than the state of Florida (50.6%) by a difference of 8.3%, 11.7%, and 23.9%, respectively (Tables 123-125, Technical Appendix).

IMMUNIZATIONS

Overall, immunization statistics—including those adults who have received a flu shot, a pneumococcal, and/or a tetanus vaccination in the past year and/or ever—across all three counties which represent the TVRH Service area are either similar or better than the statistics for immunizations across the state as a whole since 2013 (Tables 123-125, Technical Appendix).

DIABETES

The percentage of adults with a diabetes diagnosis in Lake County (15.2%), Marion County (14.7%), and Sumter County (16.2%) are each higher than Florida (11.2%) by a difference of 35.7%, 31.3%, and 44.6%, respectively (Tables 123-125, Technical Appendix). Furthermore, since 2010, there has been an increase in the percentage of adults diagnosed with diabetes in Lake County (by a percent change of 13.4%), Marion County (by a percent change of 20.5%), and in Sumter County (by a percent change of 36.1%). While self-management education is critical to reducing the burden of diabetes, the percentage of adults who report ever participating in diabetes self-management education has decreased in Lake County (by a percent change of 5.9%) and in Marion County (by a percent change of 5.8%), whereas this percentage has increased in Sumter County (by a percent change of 7.4%) (Tables 123-125, Technical Appendix).

HEALTH CARE ACCESS & COVERAGE

Since 2010, the percentage of adults who could not see a doctor due to cost has increased in Lake County (by a percent change of 45.8%), whereas this percentage has decreased in Marion County (by a percent change of 19.0%) and Sumter County (by a percent change of 14.0%) (Tables 123-125). When compared to Florida (77.1%), Lake County (79.4%), Marion County (78.0%) and Sumter County (88.4%) had a higher percentage of adults with any type of health care insurance coverage (Tables 123-125, Technical Appendix).

HEART DISEASE

As of 2013, the percentage of adults who have ever had a stroke in Lake County (4.5%, which has increased since 2010 from 3.4%), Marion County (6.5%, which has increased since 2010 from 5.4%) and Sumter County (6.9%, which has increased since 2010 from 5.8%) are each higher than Florida (3.7%) by a difference of 21.6%, 75.7% and 86.5%, respectively (Tables 123-125). Likewise, the percentage of adults who have ever been told they had coronary heart disease, heart attack or stroke has increased in Marion County (14.4%, which has increased since 2010 from 13.6%) and Sumter County (16.8%, which has increased since 2010 from 15.1%) are higher than Florida (10.3%) by a difference of 39.8% and 63.1%, respectively (Tables 124 and 125, Technical Appendix).

HEALTH STATUS AND QUALITY OF LIFE

In 2013, Marion County's percentage of adults who reported "good to excellent overall health" (80.5%) is the same as Florida's. Furthermore, Marion County's percentage of adults who reported "good to excellent overall health" has increased since 2010 (from 77.1%) by a percent change 4.4% (Table 124, Technical Appendix). From 2010 to 2013, the percentage of adults reporting "good to excellent overall health" decreased in both Lake County (82.9% to 79.7%) and Sumter County (82.1% to 80.3%) by a change of 3.9% and 2.2%, respectively. As of 2013, both counties also had a lower percentage than Florida (80.5%) of adults reporting "good to excellent overall health" (Tables 123 and 125, Technical Appendix). From 2010 to 2013, the average number of days in Lake County, where residents reported poor mental or physical health interfering with daily activities, increased from 4.5 days to 6.4 days, a difference of 42.2%. The interference of with daily activities due to poor mental or physical health most likely reflects the slight decrease of adults in Lake County who report having good mental health (91.3% in 2010 to 89.7% in 2013) (Table 123, Technical Appendix). From 2010 to 2013, the number of unhealthy physical days reported in the past 30 days decreased in Lake County (4.4 days to 4.2 days, by a change of 4.5%) and Marion County (4.5 days to 4.0, by a change of 11.1%) but increased in Sumter County (3.2 days to 4.9 days, by a change of 53.1%). As of 2013, the number of unhealthy physical days reported in the past 30 days for the state of Florida (4.5 days) is greater than both Lake County and Marion County, but less than Sumter County (Tables 123-125, Technical Appendix).

PHYSICAL ACTIVITY AND NUTRITION

In 2013, both Lake County (65.5%) and Marion County (63.8%) had higher percentages than Florida (62.8%) of adults who are overweight and obese by a difference of 4.3% and 1.6%, respectively (Tables 123-124, Technical Appendix). When compared to Florida (18.3%), Lake County (17.4%), Marion County (12.9%), and Sumter County (13.5%) had a lower percentage of adults who reported consuming at least five servings of fruits and vegetables a day, a difference of 4.9%, 29.5%, and 26.2%, respectively (Tables 123-125, Technical Appendix). Moreover, the percentage of adults who are inactive or insufficiently active in Lake County (48.1%), Marion County (51.4%), and Sumter County (41.4%) are lower when compared to Florida (52.9%), a percent difference of 9.1%, 2.8%, and 21.7%, respectively (Tables 123-125, Technical Appendix).

MATERNAL AND INFANT HEALTH

As seen in Table 6, there were 1,436 births recorded in TVRH Service Area. During that time period, there were only 11 infant deaths, a rate of 7.7 per 1,000 live births in TVRH Service Area, compared to a rate of 9.4 per 1,000 live births in CFH Service Area and 12.4 per 1,000 live births in Florida.

The percentage of low birthweight births for TVRH was 9.1%, compared to CFH Service Area at 10.7% and the state of Florida at 8.6%. Additionally, there is a substantially higher percentage of lower birthweight births among the Black population (15.0%) in TVRH Service Area, as well as in CFH Service Area (16.7%) and Florida (13.0%), compared to the White population (8.4%) in TVRH Service Area, as well as in CFH Service Area (9.6%) and Florida (7.2).

TABLE 6. MATERNAL HEALTH INDICATORS BY RACE/ETHNICITY, TVRH SERVICE AREA, CENTRAL FLORIDA HEALTH SERVICE AREA AND FLORIDA , 2012-2014

County	TVRH				CFH				Florida			
	All	Black	White	Hispanics	All	Black	White	Hispanics	All	Black	White	Hispanics
Total Births	1,436	220	1,155	194	3,762	708	2,862	194	648,053	146,788	461,143	178,665
Infant Deaths	11	2	8	1	37	8	27	4	10,872	4,464	5,705	2,376
Infant Death Rate	7.7	9.1	6.9	5.2	9.8	11.3	9.4	8.5	16.8	30.4	12.4	13.3
Low Brthwght.	130	33	97	16	404	118	274	52	55,766	19,098	33,278	13,011
Low Brthwght. (%)	9.1	15.0	8.4	8.2	10.7	16.7	9.6	11.0	8.6	13.0	7.2	7.3

Source: Tables 107-111, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

In 2013, the number one cause of death in TVRH Service Area, CFH Service Area, and Florida for the population 0-17 years of age was due to perinatal conditions; with a crude-rate (per 100,000 births) of 21.2, 29.9, and 17.0, respectively (Table 90, Technical Appendix). There is a disparity for infant death rates (per 1,000 live births) in the Black (9.1) population, when compared to the White (6.9) and Hispanic (5.2) populations (Table 109, Technical Appendix).

MENTAL HEALTH

Common mental health issues such as anxiety and depression are associated with a variety of other public health issues including substance abuse, domestic violence, and suicide. The following are key findings in regards to mental health for TVRH Service Area:

- The crude and age-adjusted suicide rates for TVRH Service Area are higher than both the CFH Service Area and the state of Florida (Table 86, Technical Appendix).

- Of TVRH Service Area zip code area, Summerfield had the highest age-adjusted rate of 29.9 (per 100,000 population) of deaths from suicide from 2012 to 2014, compared to the CFH Service Area rate of 17.6 (per 100,000 population) and the Florida rate of 15.2 (per 100,000 population) (Table 86, Technical Appendix). There is insufficient data to determine if a racial or gender disparity exists.

- Since 2009, the rate of hospitalizations (per 1,000 population) for mental health reasons for all ages in Florida continues to remain greater than TVRH Service Area and CFH Service Area, respectively (Table 100, Technical Appendix).

- In Lake County, the percentage of adults reporting good mental health has decreased from 2010 to 2013 (91.3% to 89.7%), but remains greater than the current status of the state of Florida (87.3%) (Table 123, Technical Appendix).
- The rate (per 100,000 population) of domestic violence offenses in 2014 was much higher in Marion County (710.7) than Florida (546.8). The rate of Lake County (496.8) and Sumter County (216.9) were each lower than Marion County and Florida (Table 105, Technical Appendix).

As seen in Table 7, the two most common forms of domestic violence in all three (3) counties within TVRH Service Area included Simple Assault (an unlawful intentional threat towards another person in order to create a well-founded fear of imminent violence or harm) and Aggravated Assault (an unlawful intention of inflicting sever or aggravated bodily injury). The rates of domestic violence offenses for Sumter County may appear low, as the population that resides in Sumter County is substantially lower compared to Lake County and Marion County, respectively.

TABLE 7. RATE PER 100,000 POPULATION FOR DOMESTIC VIOLENCE OFFENSES BY TYPE, CENTRAL FLORIDA HEALTH COUNTIES AND FLORIDA, 2014

Type of Offense	Lake County Population (299,190)	Marion County Population (337,455)	Sumter County Population (110,422)	Florida Population (19,457,270)
	Rate per 100,000 Population	Rate per 100,000 Population	Rate per 100,000 Population	Rate per 100,000 Population
Murder	1.3	0.9	1.8	1.0
Manslaughter	0.3	0.0	0.0	0.1
Forcible Rape	10.7	5.9	0.0	7.3
Forcible Fondling	5.7	2.1	0.0	3.6
Aggravated Assault	74.9	151.4	39.8	87.6
Aggravated Stalking	0.0	0.3	0.0	0.7
Simple Assault	419.1	558.3	173.0	436.8
Threat/Intimidation	3.3	0.3	2.7	10.3
Stalking	1.3	0.3	0.0	2.0
Total	516.7	719.5	217.3	549.3

Source: Table 106, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

DENTAL HEALTH

As seen in Table 8, the percentage of adults who visited a dentist or dental clinic in the past year was greater in Lake County than the state of Florida as a whole in 2010. In all three (3) counties, the percentage of adults in 2010, who had a permanent tooth removed because of tooth decay or gum disease, is greater than Florida. Lastly, the percentage of adults who had their teeth cleaned in the past year in Lake County is greater than Marion County, Sumter County, and Florida, respectively.

TABLE 8. TOTAL NUMBER AND RATE PER 100,000 POPULATION FOR DOMESTIC VIOLENCE OFFENSES BY TYPE, CENTRAL FLORIDA HEALTH COUNTIES AND FLORIDA, 2014

Indicator	Lake County Measure	Marion County Measure	Sumter County Measure	Florida Measure
	2010	2010	2010	2010
Dental Care				
Percentage of adults who visited a dentist or a dental clinic in the past year	65.4	55.9	55.6	64.7
Percentage of adults who had permanent tooth removed because of tooth decay or gum disease	58.2	64.7	60.1	53.0
Percentage of adults who had their teeth cleaned in the past year	64.3	51.6	40.7	60.9

Source: Table 123-125, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

Access to dental care by low-income persons living below poverty is greatest in Lake County (22.9), compared to Florida (24.9). Although access to care is better in Marion and Sumter Counties, the rate of dentists per 100,000 is greater in Lake County (49.8) than in Marion (37.3) and Sumter Counties (29.6); this is suggestive of the need for an increase in the accessibility to dentists in TVRH Service Area.

HEALTHCARE ACCESS AND UTILIZATION

Although health insurance and access to healthcare do not necessarily prevent illness, early intervention and long-term management resources can help to maintain a quality of life and minimize premature death. It is therefore useful to consider insurance coverage and healthcare access in a community health needs assessment. The Central Florida Health Technical Appendix includes data on insurance coverage, Medicaid eligibility, and healthcare expenditures by payor source. Key findings from these data sets are presented in sections below according to the focus.

SHORTAGE AREAS

Health Professional Shortage Areas (HPSA) are defined as a geographic area, population group or facility designated by Health Resources and Services Administration as having shortages of primary medical care, dental or mental health providers. A HPSA may be a geographic area such as a county or service area; represent a specific demographic, such as low income population, or are a designated institution such as a Federally Qualified Health Center. The score of shortage areas is calculated using the following four key factors: Population-to-Primary Care Physician Ratio, Percent of Population with Incomes below 100% of the Poverty Level, Infant Mortality Rate or Low Birth Weight Rate (depending on which score is higher), and

Travel Time or Distance to nearest available source of care (also, depending on which score is higher). The scores range from 0 to 26, where the higher the score the greater the priority.

- The **dental** HPSA's for Lake County, Marion County and Sumter County include three (3) population groups, six (6) correctional facilities, two (2) comprehensive health centers, three (3) single counties, a rural health center, and one Federally Qualified Health Center (FQHC). The type of HPSA with the greatest priority for all three (3) counties is the FQHC GCHN-Umatilla Health Clinic (with a score of 20) followed by the Thomas Langley Medical Center and Low Income (with a score of 13), both of which are located in Sumter County (Table 136, Technical Appendix).

- The **mental health** HPSA's for Lake, Marion and Sumter Counties include three (3) population groups, five (5) correctional facilities, two (2) comprehensive health centers, two (2) single counties, a rural health center, and a FQHC. The type of HPSA with the greatest priority is the Northwest Florida Reception Center, serving as a correctional facility located in Sumter County, which had a score of 21 (Table 136, Technical Appendix).

- The **primary care** HPSA's for Lake, Marion and Sumter Counties include three (3) population groups, six (6) correctional facilities, two (2) comprehensive health centers, three (3) single counties, three (3) rural health centers, and a FQHC. The type of HPSA with the greatest priority Northwest Florida Reception Center, serving as a correctional facility located in Sumter County, which had a score of 21 (Table 136, Technical Appendix).

As seen in Table 9, the total rate of hospital beds available (per 100,000 population) is greatest in Marion County (249.1) and Lake County (242.0), with a slightly lower availability in Sumter County (237.6), a percent difference of 21.5% (Marion County), 23.7% (Lake County), and 25.1% (Sumter County) compared to Florida's rate (317.3) (Table 141, Technical Appendix).

TABLE 9. TOTAL HOSPITAL BEDS PER 100,000 POPULATION, CENTRAL FLORIDA HEALTH COUNTIES AND FLORIDA , 2011-2014

Year	Lake County	Marion County	Sumter County	Florida
	Total Hospital Beds			
2011	231.9	236.3	270.0	319.2
2012	249.5	246.6	262.2	321.1
2013	246.7	248.8	251.4	320.3
2014	**242.0**	**249.1**	**237.6**	**317.3**

Source: Table 141, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council
As seen in Table 10, the total rate of nursing home beds available (per 100,000 population) is greatest in Lake (481.1) and Marion Counties (401.6), with a substantially lower availability in Sumter County (281.9),

a difference of 12.7% (Lake County), 5.9% (Marion County), 33.9% (Sumter County) compared to Florida's rate (426.7).

TABLE 10. TOTAL NURSING HOME BEDS PER 100,000 POPULATION, CENTRAL FLORIA HEALTH ALLIANCE COUNTIES AND FLORIDA, 2011-2014

Year	Lake County	Marion County	Sumter County	Florida
	Nursing Home Beds			
2011	494.8	412.9	277.1	438.0
2012	466.2	410.1	340.6	436.7
2013	490.4	406.0	298.3	431.8
2014	**481.1**	**401.6**	**281.9**	**426.7**

Source: Table 141, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council
A medically underserved area (MUA) may be whole counties or a group of contiguous counties, a group of civil divisions or a group of urban census tracts in which residents have a shortage of personal health services. The lowest score (highest need) is 0 and the highest score (lowest need) is 100. As of 2015, the MUA with the greatest need is located in Sumter County, with a score of 47, while Marion County and Lake County scored a 51 and 55, respectively (Table 136, Technical Appendix).

PHYSICIAN AVAILABILITY

Although the rate in 2014 of total physicians (per 100,000 residents) has increased over the past two years in Lake County (244.7 per 100,000 residents), Marion County (187.6 per 100,000 residents) and Sumter County (121.4 per 100,000), the rates are still lower than Florida (275.7) by a percent difference of 11.2%, 39.7% and 55.9%, respectively (Table 142). Although the rate of total physicians in each county are lower than the state rate, the percentage of adults who have report having a personal doctor in Lake County (75.1%), Marion County (77.2%), and Sumter County (86.1%) are greater than Florida (73.2%) (Tables 123-125, Technical Appendix).

UNINSURED

The percentage of adults in Lake County, who could not see a doctor due to cost has increased since 2010 (13.1%) to 2013 (19.1%) (a percent change of 45.8%), while this percentage in Marion County (25.2% in 2010 to 20.4% in 2013) and Sumter County (12.1% in 2010 to 10.4%) have decreased and are less than the state of Florida (20.8%). This increase of adults who could not see a doctor due to cost most likely influenced the decrease in percentage of adults who had a medical checkup in the past year (78.5% in 2010 to 65.5% in 2013) (Table 123, Technical Appendix).

MEDICAID

As seen in Table 11, the percentages of Medicaid eligibles in TVRH Service Area have been substantially lower than the CFH Service Area and Florida, respectively. This is not unexpected considering the large adult population that utilizes Medicare as a main payor source.

TABLE 11. NUMBER OF MEDICAID ELIGIBLES AND PERCENT OF TOTAL POPULATION BY SERVICE AREA AD FLORIDA AS OF DECEMBER OF EACH YEAR, 2011-2014

Area	Total Population	Medicaid Eligibles	
		Number	Percent
2011			
TVRH SA Total	117,766	9,713	8.2
CFH SA Total	204,409	23,534	11.5
Florida	18,895,306	3,176,211	16.8
2012			
TVRH SA Total	120,580	9,786	8.1
CFH SA Total	208,273	23,983	11.5
Florida	19,016,069	3,347,866	17.6
2013			
TVRH SA Total	121,170	10,093	8.3
CFH SA Total	209,908	24,592	11.7
Florida	19,203,613	3,431,979	17.9
2014			
TVRH SA Total	127,280	10,884	8.6
CFH SA Total	214,210	27,145	12.7
Florida	19,383,475	3,747,147	19.3

Source: Table 137, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

INSURANCE UTILIZATION

Medicare as the payor source covered the greatest percent of discharges and patient days in both 2013 (76.7% and 78.5%, respectively) and 2014 (76.5% and 78.5%, respectively). Private Insurance as the payor source was the next greatest percentage of discharges and patient days in both 2013 (10.3% and 9.3%, respectively) and 2014 (10.8% and 9.9%, respectively) (Table 174, Technical Appendix). From 2013 to

2014, while Medicare as the payor source decreased, Medicaid and private insurance as the payor increased; this trend for TVRH Service Area is similar to the CFH Service Area and the state of Florida (Table 174, Technical Appendix).

INPATIENT UTILIZATION

As seen in Table 12, the greatest percent of discharges were for residents located in The Villages (40.9% of total discharges). The greatest number of percent of patient days was also due to this population, accounting for a total of 39.9% of the patient days in 2014. However, the average length of stay (ALOS) was greatest for residents from Lady Lake and Summerfield (4.7 days in 2014) compared to TVRH Service Area ALOS (4.6 days in 2014). The ALOS in Lady Lake and Summerfield is parallel to the ALOS in the CFH Service Area (4.7 days in 2014), but slightly differs from the state of Florida (4.8 days in 2014).

TABLE 12. TOTAL NUMBER AND PERCENT OF DISCHARGES AND PATIENT DAYS BY ZIP CODE FOR CENTRAL FLORIDA HEALTH COUNTIES, CALENDAR YEARS, 2014

Area	Discharges	Percent of Discharges	Patient Days	Percent of Patient Days	ALOS *
2014					
The Villages Regional Hospital Service Area					
32162 The Villages (S)	9,406	40.9	41,932	39.9	4.5
32159 Lady Lake (L)	5,904	25.7	27,555	26.2	4.7
34491 Summerfield (M)	4,818	21.0	22,722	21.6	4.7
34785 Wildwood (S)	2,863	12.5	12,942	12.3	4.5
TVRH SA	22,991	100.00	105,151	100.0	4.6
Service Area Compared to State					
CFH SA Total	39,598	1.5	186,493	1.5	4.7
Florida	2,634,872		12,767,487		4.8

Source: Table 173, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

AVOIDABLE HOSPITALIZATIONS

For patients less than 65 years of age, the most used payor source of patient discharges was from private insurance in 2013 (27.0% of total discharges) and Medicare in 2014 (28.4% of total discharges). Medicare as the payor source for patients less than 65 years of age increased from 26.8% of the total discharges in 2013 to 28.4% of the total discharges in 2014, a difference of 6.4% (Table 179, Technical Appendix).

Consistently, the number one reason for an avoidable discharge for TVRH Service Area population less than 65 years of age, from 2009 to 2014, was due to dehydration (Table 180). Dehydration accounted for 32.2% of the avoidable discharges in 2014, followed by Cellulitis (14.3%), Chronic Obstructive Pulmonary Disease (10.2%), Congestive Heart Failure (10.2%), Asthma (8.0%), Grand mal status and other epileptic convulsions (5.7%), Kidney/Urinary Infection (5.1%), Diabetes "A" (4.7%), Gastroenteritis (4.4%) and Diabetes "B" (3.5%) (Table 181, Technical Appendix).

EMERGENCY DEPARTMENT

The rate of emergency department (ED) visits per 1,000 residents in TVRH Service Area for mental health reasons for all ages has decreased from 2013 (52.1) to 2014 (44.3), a percent change of 15.0%, compared to CFH Service Area (68.1 to 55.7) and Florida (55.6 to 67.3), a percent change of 18.2% and 21.0%, respectively (Table 101, Technical Appendix).

In 2013 and 2014, the greatest percentages of ED visits from TVRH Service Area were Medicare recipients (40.7% in 2013 and 41.7% in 2014) and Medicaid recipients (24.4% in 2013 and 34.1% in 2014) (Table 184, Technical Appendix). In addition, self-pay/charity accounted for a considerable number of ED visits (17.8% in 2013 and 22.5% in 2014).Self-pay/charity is defined as Tricare or Other Federal Government, no charge, professional courtesy, research/clinical trial, refusal to pay/bad debt, Hill Burton fee care and/or research/donor that is known at the time of reporting.

The most commonly reported reason for an ED visit to TVRH from 2010 to 2014 was due to unspecified chest pain, which accounted for 8.4% ED visits in 2010, 8.9% ED visits in 2011, 8.7% ED visits in 2012, 7.4% ED visits in 2013, and 6.6% ED visits in 2014 (Table 186, Technical Appendix). However, the most common reason for an ED visit to TVRH was for all other reasons that were unidentified. All other reasons accounted for 58.9% of ED visits in 2010, 57.6% of the ED visits in 2011, 61.1% of the ED visits in 2012, 68.2% of ED visits in 2013, and 67.0% of ED visits in 2014.

The rate (per 1,000 population) of avoidable ED visits for TVRH Service Area increased from 115.7 in 2013 to 121.6 in 2014, a percent change 5.1%. Considering TVRH Service Area, the highest rate of avoidable ED visits came from the Wildwood zip code area, accounting for a rate (per 1,000 population) of 273.6 in 2013 and increasing to a rate of 286.1 in 2014, a percent change of 4.6%. The rates of avoidable ED visits for TVRH Service Area as a whole, were positively favorable compared to CFH Service and the state of Florida from 2013 to 2014 (Table 188, Technical Appendix).

READMISSION

As seen in Figure 3, Home Self Care (47.4%), Skilled Nursing Facility (SNF) (28.1%), and Home Health Services (20.4%) accounted for the majority of initial discharges and readmissions in TVRH. Whereas, intermediate care facilities (2.4%), hospice-home (0.3%), hospice-medical facility (0.2%), long-term care (0.6%), psychiatric hospitals (0.1%), and transfers from rehab (0.6%) account for less than 5 percent of discharges and readmissions to TVRH. Similarly, the readmission rates for those persons initially discharged from the Leesburg Regional Medical Center (LRMC) and later readmitted to TVRH is comparable to the rates of initial discharges and readmissions for TVRH as the initial and readmit hospital (Figure 4). As such, Home

Self Care (37.3%), SNF (32.9%), and Home Health Services (26.1%) accounted for roughly 97.0% of initial discharges from LRMC and readmissions to TVRH.

FIGURE 3. INITIAL DISCHARGE STATUS TVRH WAS INITIAL HOSPITAL & READMIT HOSPITAL JANUARY 1-DECEMBER 31, 2014
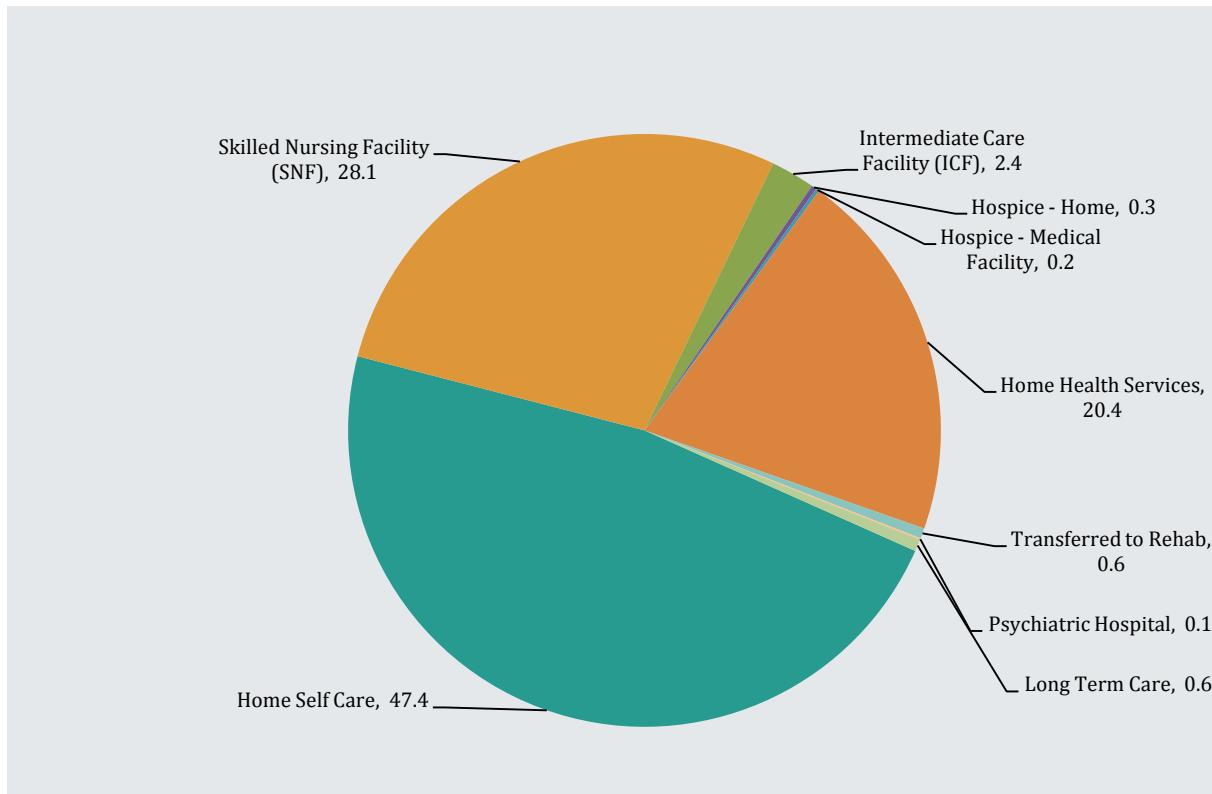
Skilled Nursing Facility (SNF), 28.1

Intermediate Care Facility (ICF), 2.4

Hospice - Home, 0.3

Hospice - Medical Facility, 0.2

Home Health Services, 20.4

Transferred to Rehab, 0.6

Psychiatric Hospital, 0.1

Long Term Care, 0.6

Home Self Care, 47.4

Source: Table 151, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

FIGURE 4. INITIAL DISCHARGE STATUS LRMC WAS INITIAL HOSPITAL & TVRH WAS READMIT HOSPITAL JANUARY 1-DECEMBER 31, 2014
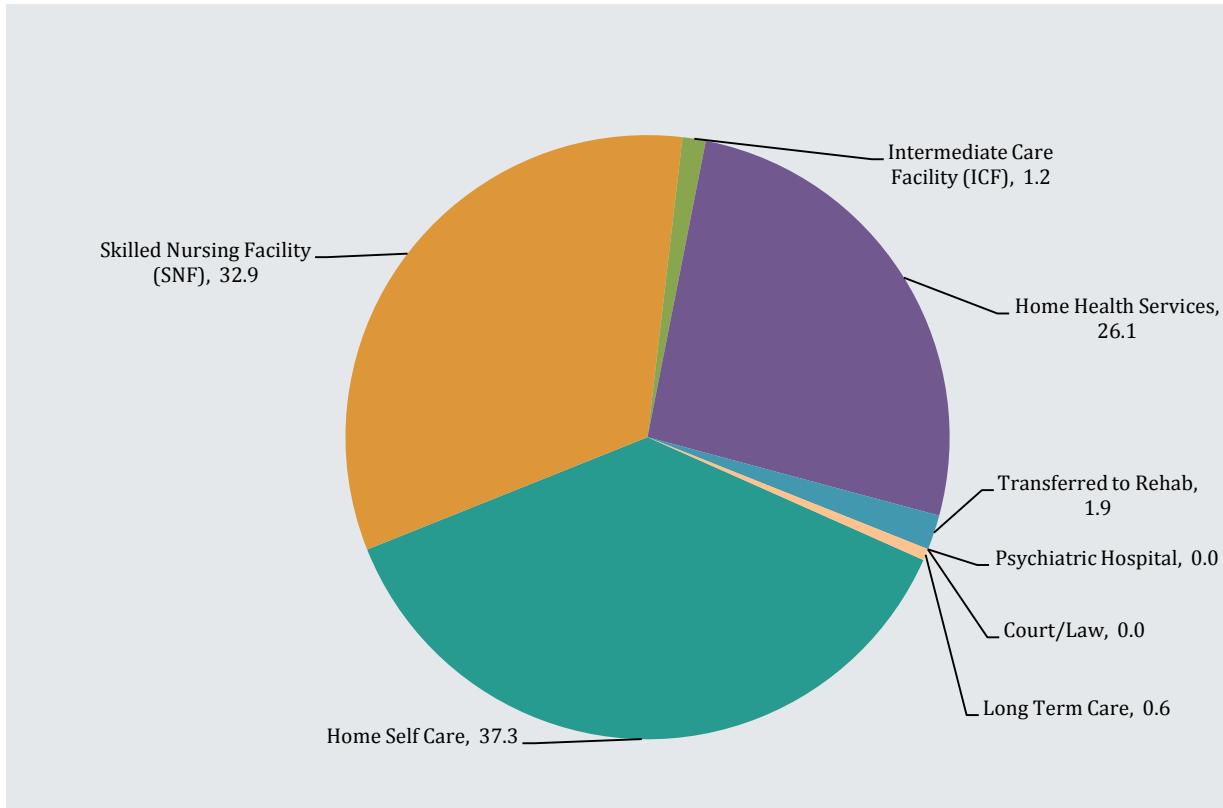
Source: Table 151, Central Florida Health Technical Appendix 2015, prepared by WellFlorida Council

COUNTY HEALTH RANKINGS

The County Health Rankings are a key component of the Mobilizing Action Toward Community Health (MATCH) collaboration project between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. Counties receive a rank relative to the health of other counties in the state. Counties having high ranks, e.g. 1 or 2, are considered to be the "healthiest." Health is viewed a multi-factorial construct. Counties are ranked relative to the health of other counties in the same state on the following summary measures:

 I. Health Outcomes – rankings are based on an equal weighting of one length of life (mortality) measure and four quality of life (morbidity) measures.
 II. Health Factors – ranking are based on weighted scores of four types of factors:
    a. Health behaviors (7 measures)
    b. Clinical care (5 measures)
    c. Social and economic (7 measures)
    d. Physical environment (5 measures)

The Rankings for Lake County, Marion County and Sumter County are currently available for 2015. In the year 2015, Lake County ranked 16th for health factors and 19th for health outcomes compared to Marion County ranked 38th for health factors and 42nd for health outcomes and Sumter County ranked 7th for health factors and 27th for health outcomes.

- **Lake County** fares worse than Florida as whole on premature death, adult obesity, physical inactivity, access to exercise opportunities, percent of alcohol-impaired driving deaths, teen birth rate, primary care physicians-to-population ratio, dentists-to-population ratio, mental health providers-to-population ratio, preventable hospital stay rate, percentage of some college graduates, unemployment, injury death rate, and percent of drinking water violations.

- **Marion County** fares worse than Florida as whole on premature death, poor physical health days, poor mental health days, adult smoking, adult obesity, food environment index, physical inactivity, access to exercise opportunities, alcohol-impaired driving deaths, sexually transmitted infections rate, teen birth rate, uninsured adults, primary care physicians-to-population ratio, dentists-to-population ratio, mental health providers-to-population ratio, percentage of some college, percentage of unemployment, percentage of children in poverty, percentage of children in single-parent households, and injury death rate.

- **Sumter County** fares worse than Florida as a whole on premature death, poor or fair health, low birthweight, adult obesity, access to exercise opportunities, teen birth rate, primary care physicians-to-population ratio, dentists-to-population ratio, mental health providers-to-population ratio, percentage of some college graduates, percent of children in poverty, social associations rate and injury death rate.

  Each of these factors, including how Lake, Marion and Sumter Counties are compared to the state of Florida and the National Benchmark, can be viewed in Table 3, Technical Appendix.

HEALTH FACTORS AND OUTCOMES

Health factors influence the health of a community and include socioeconomic factors, health behaviors, and clinical care. The overall health outcomes ranking in Marion County (42) was much lower than both Sumter County (27) and Lake County (19) compared to all 67 counties throughout Florida (Table 2, Technical Appendix). In TVRH Service Area, Marion County fares worst in both health factors and outcomes, as seen in Table 13.

TABLE 13. COUNTY HEALTH RANKINGS FOR CENTRAL FLORIDA HEALTH COUNTIES, 2010-2015

Measure	2010	2011	2012	2013	2014	2015
Lake County						
Health Outcomes	25	20	16	19	18	**19**
Health Factors	16	12	13	14	16	**16**
Marion County						
Health Outcomes	45	49	48	44	41	**42**
Health Factors	36	44	44	39	40	**38**
Sumter County						
Health Outcome	24	24	26	24	30	**27**
Health Factors	20	23	12	13	11	**7**

Source: Table 2, Central Florida Health Technical Appendix, prepared by WellFlorida Council

Community Themes and Strengths

Quantitative data from a vast array of secondary or administrative data sets can only describe part of a community's core health needs and health issues.

A community perspective of health and the healthcare experience are essential to fully understand a community's health. The Villages Regional Hospital has utilized three approaches to generate community perspectives on health and the healthcare system in the service area. Community surveys of business leaders, citizens and providers was conducted. The observations from these surveys comprise the Community Themes and Strengths Assessment, which is one of the four MAPP assessments.

COMMUNITY SURVEY

METHODOLOGY

The Central Florida Health Steering Committee, in partnership with WellFlorida Council, collaborated to formulate three similar, though slightly different surveys (business leader, citizen, and physician) to query individuals about community health issues and healthcare system perspectives.

A convenience sampling approach (respondents are selected due to their convenient accessibility) was utilized for all three surveys. The CFH Steering Committee assisted with the dissemination of surveys through their respective organizations and by connecting WellFlorida to key stakeholders and community partners.

There were a total of 380 respondents to the various surveys. However, only 257 participants completed the various surveys in its entirety (227 citizens, 21 business leaders, and 10 physicians). The survey instruments for citizens, business leaders, and physicians are located in the Technical Appendix. Also, the full, detailed results of each survey are provided in the Technical Appendix which accompanies this document.

While there are advantages of utilizing a convenience sampling approach, such as the ability to rapidly analyze and extrapolate findings to form conclusions, it is difficult to argue that the sample is representative of the population CFH serves. As a whole, women, older adults, and white residents were over-represented in the respondent group. While the insights obtained from each survey are extremely valuable, they cannot be generalized to all CFH business leaders, citizens, or physicians.

OBSERVATIONS

Tables 14-18 summarize the over-arching community health and healthcare issues questions asked of all three groups: business leaders, citizens and physicians. In general, the top four or only the leading responses for each question for each of the three groups are presented. Weighted ranks were applied to Tables 17 and 18 to obtain a weighted score for each response option (not very confident=1, somewhat

confident=2, confident=3, very confident=4, not sure=0, for citizens and business leaders; yes=3, maybe=2, no=1, not sure=0, for physicians). Questions regarding the following topics are included in the analysis:

- Most important factors for a healthy community
- Most important health problems in the community
- Behaviors with greatest impact on overall health
- Health issues identified as somewhat or big problem
- Very confident or confident of community making impact on health issue

Some noteworthy observations include:

- Business leaders, citizens, and physicians all agree that two of the top three factors that define a healthy community are: 1) access to healthcare and 2) healthy behaviors and healthy lifestyles (Table 14)
- Aging problems, obesity, and cancer were the consensus as the most important health problems among business leaders, citizens, and physicians (Table 15)
- There was less consensus among the respondents on the health behaviors that have the greatest impact on overall health (Table 16)
- Overall, respondents found heart disease, diabetes, cancer, and overweight and obesity as somewhat or big problems in their community (Table 17). However, the majority of respondents did not feel confident that their community could make a substantial impact on the aforementioned issues in the next 1-3 years (Table 18).

TABLE 14. MOST IMPORTANT FACTORS FOR A HEALTHY COMMUNITY, TOTAL NUMBER OF EACH TYPE OF RESPONDENT AND PERCENT OF EACH TYPE OF RESPONDENT, 2015.

Factor	Citizens	Business Leaders (TVRH Service Area)	Business Leaders (LRMC Service Area)	Physicians
1	Access to health care (75.0%)	Access to health care (86.0%)	Access to health care (65.0%)	Access to health care (70.0%)
2	Healthy behaviors and healthy lifestyles (53.0%)	Healthy behaviors and healthy lifestyles (57.0%)	Healthy behaviors and healthy lifestyles (41.0%)	Healthy behaviors and healthy lifestyles (67.0%)
3	Good jobs and healthy economy (45.0%)	Arts and cultural events (43.0%)	▪ Good jobs and healthy economy (29.0%) ▪ Low crime/safe neighborhoods (29.0%)	Good jobs and healthy economy (47.0%)
4	Low crime/safe neighborhoods (26.0%)	▪ Affordable housing (29.0%) ▪ Low adult death and disease rates (29.0%)	▪ Affordable housing (24.0%) ▪ Arts and cultural events (24.0%) ▪ Low adult death and disease rates (24.0%)	Low crime/safe neighborhoods (30.0%)

Source: Community Health Survey of Business Leaders, Citizens, and Physicians 2015, prepared by WellFlorida Council

TABLE 15. MOST IMPORTANT HEALTH PROBLEMS IN COMMUNITY, TOTAL NUMBER OF EACH TYPE OF RESPONDENT AND PERCENT OF EACH TYPE OF RESPONDENT, 2015.

Factor	Citizens	Business Leaders (TVRH Service Area)	Business Leaders (LRMC Service Area)	Physicians (North Lake)	Physicians (Sumter/South Marion)
1	Aging problems (47.0%)	Cancer (57.0%)	Obesity (47.0%)	▪ Aging problems (71.0%) ▪ Heart disease and stroke (71.0%)	Heart disease and stroke (80.0%)
2	Obesity (41.0%)	▪ Aging problems (43.0%) ▪ Child abuse/neglect (43.0%) ▪ Obesity (43.0%)	▪ Aging problems (35.0%) ▪ Cancer (35.0%) ▪ High blood pressure (35.0%)	Diabetes (50.0%)	Aging problems (50.0%)
3	▪ Cancer (34.0%) ▪ Mental health problems (34.0%)	Heart disease and stroke (29.0%)	Child abuse/neglect (29.0%)	Obesity (29.0%)	▪ Diabetes (40.0%) ▪ Obesity (40.0%)

Source: Community Health Survey of Business Leaders, Citizens, and Physicians 2015, prepared by WellFlorida Council

TABLE 16. BEHAVIORS WITH GREATEST IMPACT ON OVERALL HEALTH, TOTAL NUMBER OF EACH TYPE OF RESPONDENT AND PERCENT OF EACH TYPE OF RESPONDENT, 2015.

Factor	Citizens	Business Leaders (TVRH Service Area)	Business Leaders (LRMC Service Area)	Physicians (North Lake)	Physicians (Sumter/South Marion)
1	Alcohol abuse (48.0%)	Dropping out of school (57.0%)	Not exercising (53.0%)	▪ Not exercising (64.0%)	▪ Not exercising (70.0%) ▪ Tobacco use (70.0%)
2	▪ Drug abuse (42.0%) ▪ Eating unhealthy food (42.0%)	▪ Alcohol abuse (43.0%) ▪ Drug abuse (43.0%) ▪ Not exercising (43.0%)	▪ Alcohol abuse (41.0%) ▪ Drug abuse (41.0%)	▪ Eating unhealthy foods (57.0%) ▪ Overeating (57.0%)	▪ Eating unhealthy foods (50.0%)
3	Not exercising (37.0%)	▪ Overeating (29.0%) ▪ Smoking and Tobacco Use (29.0%)	▪ Dropping out of school (35.0%)	▪ Not using healthcare services appropriately (43.0%) ▪ Tobacco use (43.0%)	Overeating (40.0%)
4	Overeating (31.0%)	▪ Eating unhealthy foods (14.0%) ▪ Not getting immunizations to prevent disease (14.0%) ▪ Not using healthcare services appropriately (14.0%) Not using seat belts/child safety seats (14.0%)	▪ Not using healthcare services appropriately (29.0%) ▪ Eating unhealthy foods (29.0%)	▪ Alcohol abuse (14.0%) ▪ Drug abuse (14.0%)	Not using healthcare services appropriately (30.0%)

Source: Community Health Survey of Business Leaders, Citizens, and Physicians 2015, prepared by WellFlorida Council

TABLE 17. HEALTH ISSUES IDENTIFIED AS SOMEWHAT OR BIG PROBLEM, TOTAL NUMBER OF EACH TYPE OF RESPONDENT AND WEIGHTED VALUE OF EACH TYPE OF RESPONDENT, 2015.

Factor	Citizens	Business Leaders (TVRH Service Area)	Business Leaders (LRMC Service Area)	Physicians (North Lake)	Physicians (Sumter/South Marion)
1	Heart Disease (893)	Heart disease (16)	Diabetes (46)	▪ Diabetes (51) ▪ Heart disease (51)	Heart disease (40)
2	Overweight and Obesity (878)	▪ Cancer (15) ▪ Diabetes (15) ▪ Overweight and Obesity (15)	▪ Cancer (45) ▪ Overweight and Obesity (45)	▪ Cancer (46) ▪ Smoking and Tobacco use (46)	Smoking and Tobacco Use (37)
3	Diabetes (875)	Smoking and Tobacco Use (12)	Heart Disease (44)	Mental illness/ Access to care for mental illness (34)	Diabetes (32)
4	Cancer (836)	▪ Mental illness (9) ▪ Alcohol and Drug Abuse (9)	Alcohol and Drug Abuse (41)	▪ Alcohol abuse/access to care for alcohol abuse (31) ▪ Overweight and Obesity (31)	Sexually Transmitted Infections (STIs) (27)

Source: Community Health Survey of Business Leaders, Citizens, and Physicians 2015, prepared by WellFlorida Council

TABLE 18. VERY CONFIDENT OR CONFIDENT OF COMMUNITY MAKING IMPACT ON HEALTH ISSUE, TOTAL NUMBER OF EACH TYPE OF RESPONDENT AND WEIGHTED VALUE OF EACH TYPE OF RESPONDENT, 2015.

Factor	Citizens	Business Leaders (TVRH Service Area)	Business Leaders (LRMC Service Area)	Physicians (North Lake)	Physicians (Sumter/South Marion)
1	Heart Disease (893)	▪ Smoking and Tobacco Use (7) ▪ Cancer (7)	▪ Overweight and Obesity (24) ▪ Smoking and Tobacco Use	Diabetes (38)	Diabetes (26)
2	Overweight and Obesity (878)	HIV/AIDS (6)	▪ Alcohol and Drug Abuse (20) ▪ Diabetes (20)	Smoking and Tobacco use (36)	Cancer (25)
3	Diabetes (875)	Overweight and Obesity (4)	▪ Cancer (19) ▪ Heart Disease (19) ▪ HIV/AIDS (19)	Heart Disease (35)	Sexually Transmitted Infections (24)
4	Cancer (836)	▪ Diabetes (3) ▪ Heart Disease (3)	▪ Domestic Violence (14) ▪ Suicide (14)	Cancer (32)	Smoking and Tobacco Use (23)

Source: Community Health Survey of Business Leaders, Citizens, and Physicians 2015, prepared by WellFlorida Council

Forces of Change Assessment

METHODOLOGY

One of the main elements of the MAPP needs assessment process includes a Forces of Change Assessment (FCA). The Forces of Change Assessment for Central Florida Health was conducted for both hospitals within the hospital system – The Villages Regional Hospital and Leesburg Regional Medical Center. This assessment is aimed at identifying forces such as trends, factors, or events that are or will be influencing the health and quality of life of the community.

- *Trends* are patterns over time, such as migration in and out of a community or a growing disillusionment with government.
- *Factors* are discrete elements, such as a community's large ethnic population, an urban setting, or the jurisdiction's proximity to a major waterway.
- *Events* are one-time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation.

These forces can be related to social, economic, environmental or political factors in the region, state or U.S. that have an impact on the local community. Information collected during this assessment will be used in identifying strategic issues.

On February 9, 2016, the Steering Committee for the Central Florida Health Community Health Assessment convened a group of several community leaders to participate in this Forces of Change Assessment. Prior to the meeting, WellFlorida Council distributed a forces of change brainstorming tool as well as a threats and opportunities worksheet and encouraged invitees to the meeting to begin to brainstorm the possible forces that may hinder or help the community in its quest for community health improvement. The tool used to conduct this activity can be found in Appendix C. The *Forces of Change for* TVRH summarizes the forces of change identified for TVRH Service Area and possible opportunities and/or threats that may need to be considered in any strategic planning process resulting from this MAPP assessment.

Forces Of Change For The Villages Regional Hospital (TVRH)			
(Prepared by WellFlorida Council – February 2016)			
	TRENDS	**THREATS POSED**	**OPPORTUNITIES CREATED**
Social	Rapid population growth	• Overwhelms facilities	• Stable payer, volumes of payer sources
	Rise in alternative medicine and care	• Circulating misconceptions about traditional care	• Partnerships, promotion of different types of care through different channels
	Physicians becoming more interested in QOL care	• Expense of employment for more physicians • Difficulty in covering call schedules • Need to replace doctors that retire at a ratio of 1.5:1	• Coordination of services • Job sharing for physicians
Economic	Cost of healthcare	• Threat to therapies provided as patients are often limited by cost of prescription drugs • Patients may delay care as a result due to high cost of deductibles	• Opportunities to collaborate and find alternative methods to help identify treatments and therapies that are affordable • Opportunities to educate community on common health insurance issues and why it is important to receive care when needed
	Very fragmented health system	• Disjointed care • Community members may have to find new medical homes due to less emphasis on independent physicians and more on employed physicians	• Need assessments, collaborations are working towards ways to make simpler and finding solutions • Opportunity to refine how we function with the managed care plan system • More robust workforce

		• Limited networks due to Increased use of managed care plans	• Opportunity to employ physicians who want to be part of a team
	Increase in Medicaid use	• Strain on existing services	• With a larger population to serve, opportunity to become expert source in the community
	Slight economic uptick	• Overuse of services when patients have more money to put in the system	• More general spending, more robust commerce good for community
Political/ Gov't	Medicare reimbursement continues to be reduced	• Less funding	• Opportunities to collaborate on ways to adapt to the new system
Scientific/ Technology	Rise of technology in healthcare	• High cost • Virtual patient solicitation, Challenge to integrate with systems (EMR's) • Lack of education for providers and patients • Lack of investment	• Opportunities for telemedicine • Safer coordination of care • Ability to perform trend analysis and quality assurance

Forces Of Change For The Villages Regional Hospital (TVRH)
(Prepared by WellFlorida Council – February 2016)

	FACTORS	THREATS POSED	OPPORTUNITIES CREATED
Social	Very homogenous, aging population	• Readmissions, • End of life care • Limited need for some services	• Greater collaboration with post-acute care providers • Enhanced use of technology • Opportunity to streamline existing services and coordinate care to meet the population-wide needs
	Active lifestyle of population	• Injuries	• Programs to mitigate injuries • Rehab services (cognitive function/impairment) • Opportunities to better educate on the reduction for serious illnesses related to activity • Population is more receptive to the right activities • Two year increase in lifespan
	Population stays within the community (doesn't migrate)	• Population's lack of knowledge of healthy opportunities and issues that exist outside of the community	• Ability to serve one community frequently and continuously
	Highly educated and informed community with high expectations	• Population can be critical and	• Better compliance with screening

		• demanding of available services	• Opportunity to set and meet high standards of the community
	Good relationships with community groups	• Many groups to keep track of • Turf issues	• Opportunity to work together on projects • Coalition development • Increased community voice • Community groups and physicians can work together on projects for better outcome
Economic	Lack of continuum of care	• Over-utilization of healthcare services (i.e. emergency department) leads to strain on services and physician time • Increased re-admissions • Increased expenditures related to end of life care • Patients are in non-optimal state due to inadequacies of another provider • Cost to deliver services	• Enhancing use of EMR • Increased use of transition care coordinators • Opportunity to become a leader in the community • Opportunity to educate community and appropriate use of ED • Interventions/survey opportunities through ED population
	Patient-centered primary care	• New style of healthcare may not be accepted by all health professionals all at once	• Opportunity to coordinate service and care based on new system
	RN shortages	• Lessened quality of care	• Opportunities to coordinate with

		• Lack of available professionals to patients	healthcare academy and reaching out to high schools
	End of life care	• Impaired cognitive function with aging population leads to lack of decision-making among population • Increased competition • Issues with coordinating with other facilities/services	• More services available for patients • Opportunity to develop/coordinate with support services/groups
	Proliferation of nursing homes	• Decreased reimbursement to the hospital • Risk of infection • Increased competition for acute rehab • Take only certain payers • Increased completion as Promise Hospital acute care opens	• Greater capacity • More beds available • More services available to the community

Forces Of Change For The Villages Regional Hospital (TVRH)
(Prepared by WellFlorida Council – February 2016)

	EVENTS	THREATS POSED	OPPORTUNITIES CREATED
Economic	Opening of competing 24 hour emergency departments	• Higher pay mix • Limit who they will see	• Opportunities for patient education on appropriate use
	Conversion of community hospitals for-profit hospitals	• Greater focus to serve profitable patient populations • Out-migration of patients	• Consolidation • Attracts persons to CFH • Increase in cardiac services
	Patient market along Highway 44	• Unknowns when serving different population • Unique health issues and needs	• Increased patient base • Marketing opportunities along major road
	Increased bed capacity	• Demands on the facility • More space needed to expand	• Able to serve more patients • Improved community relations
Social	Wellness plans for hospital employees	• An expensive investment	• Ability to foster positive changes to employees' health • Expansion of services to other businesses in the community
	Formed a post-acute care coalition	• Many organizations wanting to drive change, difficult to define leaders	• Coordinated approaches to care among many motivated community groups • Improved service delivery for community

| Political/ Gov't | CON de-regulation | • Increased competition
• Increased payer mix | • Organizations can relocate facilities as needed |
| | LIP reduction | • Reduced reimbursement
• Potentially limits services to populations most in need | • Opportunities to examine ways to expand safety-net services |

Recommendations and Next Steps

This section is divided into two parts. First, the Intersecting Themes and Key Considerations are summarized in order to identify the key health needs and issues in TVRH Service Area. Second, this section provides links to major national databases of community health improvement best practices that will be critical resources to identifying proven effective programs and interventions that could be implemented in TVRH Service Area. These national databases have been used to specify some of the most promising practices in some of the key issue areas identified for TVRH Service Area in the 2015.

INTERSECTING THEMES AND KEY CONSIDERATIONS

Presented below are the intersecting themes which, in essence, comprise an overview of the major health needs/issues in TVRH Service Area. Following the intersecting themes are the key considerations which are the potential strategic areas of opportunity identified as a result of this Community Health Assessment.

INTERSECTING THEMES/HEALTH NEEDS AND ISSUES

- Social Determinants (identified in Health Factors data in Community Health Status Assessment and FCA observations)
  - Lower Income
  - Higher Poverty (among certain sub-populations)
  - Lower Educational Attainment
  - Lower County Health Rankings Compared to Florida
- Health Status Measures (identified in Health Factors data in Community Health Status data; FCA observations and Community Perspectives via Community Health Surveys and FCA observations)
  - Overweight/Obesity, Poor Eating Habits and Physical Inactivity Fueling Chronic Disease Issues
  - Heart Disease, Cancer, Diabetes and Stroke Death
  - Health Outcome Disparities among Race and Ethnicities
  - Health Outcome Disparities Geographically
  - Many Poor Health Behaviors as Measured by CDC's Behavioral Risk Factor Surveillance Survey (BRFSS)
  - Lower County Health Rankings Compared to Florida
  - Very Homogenous Aging Population
  - Higher Incidence of Mental Health Issues Compared to Florida as a Whole
- Healthcare Access and Utilization (identified in Health Factors data in Community Health Status data; FCA observations and Community Perspectives via Community Health Surveys and FCA observations)
  - Inappropriate Utilization of Healthcare Services
  - Shortages of Primary Care
  - Shortages of Mental Health Care

- Over-Utilization of Healthcare Services (i.e. Emergency Department)
- Lower Levels of Physician Availability
- High Rates of Readmissions

KEY CONSIDERATIONS

- Promote Culture of Community Health as a System of Many Diverse Partners and Systems (Whole is Greater Than The Sum of its Parts)
- Foster a Unifying Community Organizing Principle and Capacity Building System around Shared Outcomes and Measures
- Create Core System Metrics to Monitor Performance of Community Health System and to Inform Collective and Individual Entity Investment in Community Health
- Develop Resource Availability and Appropriate Utilization Education Programs
- Enhance or Create Preventive Programs, Services and Resources to Address Behaviors that Lead to or Exacerbate Chronic Diseases (especially Cancer, Heart Disease, Stroke and Diabetes)
- Enhance or Create Programs to More Effectively (Health Outcome) and Efficiently (Cost and Patient Experience) Manage Chronic Disease (especially Cancer, Heart Disease, Stroke and Diabetes)
- Enhance or Create Programs to Address Obesity Epidemic and Promote Attainment of Healthy Weight
- Create Initiatives to Increase Availability of Primary Care, Dental and Mental Health Professionals and Services
- Consider Programs to Address Root Causes (Health Factors) of Systemic Community and Personal Health Issues (Employment, Income, Poverty, Education and Insurance)

INTERVENTIONS: GENERAL APPROACHES AND SPECIFIC OPPORTUNITIES

Prior to any type of prioritization of interventions and activities to address critical health needs and issues in TVRH Service Area, community partners should review existing databases of evidence-based and promising practices. These resources have been designed to catalogue the best practices for addressing countless key community health issues. Each of these resources is designed a bit differently, but at the core, either provides a comprehensive and regularly updated list of promising and evidence-based practices or has a query-able interface that allows partners to identify best practices based on the issue, type of intervention or target population. In general, these databases should be consulted prior to any type of intervention identification or prioritization within the community. Presented below are five of the most frequently utilized and widely respected databases of practices for improving community health.

- *Center for Disease Control and Prevention Community Health Improvement Navigator*
  http://wwwn.cdc.gov/chidatabase
- *County Health Rankings Policy Database - University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation*
  http://www.countyhealthrankings.org/policies/

- *The Community Guide - U.S Department of Health and Human Services, Community Prevention Services Task Force*

    http://www.thecommunityguide.org/index.html

- *Healthy People 2020 Evidence-Based Resources - U.S. Department of Health and Human Services*

    http://www.healthypeople.gov/2020/tools-resources/Evidence-Based-Resources

- *Community Tool Box - The University of Kansas KU Work Group for Community Health and Development*

    http://ctb.ku.edu/en/databases-best-practices

One key feature of each of these resources is to qualify the quality of the evidence upon which these practices are deemed best practices. When reviewing practices at these sites, one must keep in mind the following qualifiers for the quality of and the type of evidence upon which the intervention is based:

- *Case-Control Study*: A case-control study identifies all incident cases that develop the outcome of interest and compares their exposure history with the exposure history of controls sampled at random from everyone within the cohort who is still at risk for developing the outcome of interest.

- *Cohort Study*: A cohort study is a clinical research study in which people who presently have a certain condition or receive a particular treatment are followed over time and compared with another group of people who are not affected by the condition. May or may not determine an evidence-based practice.

- *Cross-Sectional or Prevalence Study*: A cross-sectional or prevalence study is a study that examines how often or how frequently a disease or condition occurs in a group of people. Prevalence is calculated by dividing the number of people who have the disease or condition by the total number of people in the group. May or may not determine an evidence-based practice.

- *Effective Practice*: A program that has been scientifically evaluated and has quantitative measures of improvement but those measures are not statistically significant.

- *Evidence-Based*: The study is of peer review quality and presents statistically significant results in a scientific manner. The intervention may be categorized simply as "evidence-based" or as "low", "moderate" or "strong" depending on the strength of the statistical significance.

- *Evidence-Based (Low or Suggestive):* While there are no systematic experimental or quasi-experimental evaluations, the evidence includes non-experimental or qualitative support for an association between the innovation and targeted healthcare outcomes or processes, or structures in the case of healthcare policy innovations.

- *Evidence-Based (Moderate)*: While there are no randomized, controlled experiments, the evidence includes at least one systematic evaluation of the impact of the innovation using a quasi-experimental design, which could include the non-random assignment of individuals to comparison groups, before-and-after comparisons in one group, and/or comparisons with a historical baseline or control. The results of the evaluation(s) show consistent direct or indirect evidence of the effectiveness of the innovation in improving targeted healthcare outcomes and/or processes, or structures in the case of healthcare policy innovations. However, the strength of the evidence is limited by the size, quality, or generalizability of the evaluations, and thus alternative explanations cannot be ruled out.

- *Evidence-Based (Strong):* The evidence is based on one or more evaluations using experimental designs based on random allocation of individuals or groups of individuals (e.g. medical practices or hospital units) to comparison groups. The results of the evaluation(s) show consistent direct evidence of the effectiveness of the innovation in improving the targeted healthcare outcomes and/or processes, or structures in the case of healthcare policy innovations.
- *Evidence of Ineffectiveness*: Strategies with this rating are not good investments. These strategies have been tested in many robust studies with consistently negative and sometimes harmful results.
- *Experimental Study*: An experimental study is a type of evaluation that seeks to determine whether a program or intervention had the intended causal effect on program participants.
- *Expert Opinion*: Strategies with this rating are recommended by credible, impartial experts but have limited research documenting effects; further research, often with stronger designs, is needed to confirm effects.
- *Experimental Study*: An experimental study is a type of evaluation that seeks to determine whether a program or intervention had the intended causal effect on program participants.
- *Individual Study*: Scientific evaluation of the efficacy of an intervention in a single study.
- *Insufficient Evidence*: Strategies with this rating have limited research documenting effects. These strategies need further research, often with stronger designs, to confirm effects.
- *Mixed Evidence*: Strategies with this rating have been tested more than once and results are inconsistent or trend negative; further research is needed to confirm effects.
- *Nonsystematic Review*: A non-systematic review is a critical assessment and evaluation of some but not all research studies that address a particular issue. Researchers do not use an organized method of locating, assembling, and evaluating a body of literature on a particular topic, possibly using a set of specific criteria. A non-systematic review typically includes a description of the findings of the collection of research studies. The non-systematic review may or may not include a quantitative pooling of data, called a meta-analysis.
- *Peer-Reviewed*: A publication that contains original articles that have been written by scientists and evaluated for technical and scientific quality and correctness by other experts in the same field.
- *Pilot Study*: A pilot study is a small-scale experiment or set of observations undertaken to decide how and whether to launch a full-scale project.
- *Practice-based Example*: A practice-based example is an original investigation undertaken in order to gain new knowledge partly by means of practice and the outcomes of that practice.
- *Promising Practice/Good Idea:* The program evaluation is limited to descriptive measures of success.
- *Randomized Control Trial*: A randomized control trial is a controlled clinical trial that randomly (by chance) assigns participants to two or more groups. There are various methods to randomize study participants to their groups.
- *Scientifically Supported*: Strategies with this rating are most likely to make a difference. These strategies have been tested in many robust studies with consistently positive results.

- *Some Evidence*: Strategies with this rating are likely to work, but further research is needed to confirm effects. These strategies have been tested more than once and results trend positive overall.
- *Systematic Review*: A systematic review is a critical assessment and evaluation of all research studies that address a particular issue. Researchers use an organized method of locating, assembling, and evaluating a body of literature on a particular topic using a set of specific criteria. A systematic review typically includes a description of the findings of the collection of research studies. The systematic review may or may not include a quantitative pooling of data, called a meta-analysis.
- *Systematic Review – Insufficient Evidence*: The available studies do not provide sufficient evidence to determine if the intervention is, or is not, effective. This does NOT mean that the intervention does not work. It means that additional research is needed to determine whether or not the intervention is effective.
- *Systematic Review – Recommended*: The systematic review of available studies provides strong or sufficient evidence that the intervention is effective. The categories of "strong" and "sufficient" evidence reflect the Task Force's degree of confidence that an intervention has beneficial effects. They do not directly relate to the expected magnitude of benefits. The categorization is based on several factors, such as study design, number of studies, and consistency of the effect across studies.
- *Systematic Review – Recommended Against*: The systematic review of available studies provides strong or sufficient evidence that the intervention is harmful or not effective.

Table 19 presents results of a query of these best practices for some of the key health issue/needs areas in TVRH Service Area and are worthy of consideration as community interventions. Some of these best practices may already be in place in Marion County and need enhancement while others represent new opportunities.

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
Chronic Disease	Weekly Home Monitoring and Pharmacist Feedback Improve Blood Pressure Control in Hypertensive Patients	Evidence-Based (Strong)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/weekly-home-monitoring-and-pharmacist-feedback-improve-blood-pressure-control-in-hypertensive-patients
Chronic Disease	Help Educate to Eliminate Diabetes (HEED) A culturally appropriate and community based peer-led lifestyle intervention (Project HEED). These peer-led lifestyle interventions promoted and encouraged healthier life-style changes amongst the participants of the study by educating them in portion control, physical activities, and healthier and affordable food options.	Effective Practice	Healthy Communities Institute: http://cdc.thehcn.net/index.php?controller=index&module=PromisePractice&action=view&pid=3841
Chronic Disease	Community Referral Liaisons Help Patients Reduce Risky Health Behaviors, Leading to Improvements in Health Status The Community Health Educator Referral Liaisons project helped patients to reduce risky health behaviors (e.g., drinking, smoking, physical inactivity) by linking them with community resources, offering counseling and encouragement over the telephone, and providing feedback to referring physicians. Originally implemented between February 2006 and July 2007, the program included four liaisons who worked with 15 primary care practices in three Michigan communities, referring patients to community preventive health services and offering counseling and encouragement to help patients achieve their health-related goals.	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/community-referral-liaisons-help-patients-reduce-risky-health-behaviors-leading-to-improvements-in-health-status
Chronic Disease	Diabetes Educators Provide Counseling at Worksites, Leading to Enhanced Knowledge, Improved Outcomes, and Reduced Absenteeism	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/diabetes-educators-provide-counseling-atworksitesleading-to-enhanced-knowledge-improved-outcomes-and-reduced-absenteeism

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
	Chrysler LLC and Health Alliance Plan of Michigan worked with other organizations to create the Driving Diabetes Care Experts program, which screens employees to identify those with diabetes and brings diabetes educators to three Chrysler office and factory worksites for scheduled one-on-one or group counseling sessions with these employees. Sessions help to identify diabetes-related concerns and set goals for diabetes management activities, such as dietary changes, exercise, and medication management. Pre- and post-implementation results from two sites show that the program led to enhanced diabetes knowledge; better blood sugar, cholesterol, and weight control; and less absenteeism.		
Mental Health	Collaborative care for the management of depressive disorders is a multicomponent, healthcare system-level intervention that uses case managers to link primary care providers, patients, and mental health specialists. These mental health specialists provide clinical advice and decision support to primary care providers and case managers. These processes are frequently coordinated by technology-based resources such as electronic medical records, telephone contact, and provider reminder mechanisms.	Systematic Review	Healthy People 2020: http://www.healthypeople.gov/2020/tools-resources/evidence-based-resource/recommendation-from-the-community-preventive-services
Mental Health	Interventions to Reduce Depression Among Older Adults: Home-Based Depression Care Management - Depression care management at home for older adults with depression is recommended on the basis of strong evidence of effectiveness in improving	Systematic Review	Healthy People 2020: http://www.healthypeople.gov/2020/tools-resources/evidence-based-resource/interventions-to-reduce-depression-among-older-adults-0

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
	short-term depression outcomes. Home-based depression care management involves active screening for depression, measurement-based outcomes, trained depression care managers, case management, patient education, and a supervising psychiatrist.		
Mental Health	School-Based Programs to Reduce Violence Universal school-based programs to reduce violence are designed to teach all students in a given school or grade about the problem of violence and its prevention or about one or more of the following topics or skills intended to reduce aggressive or violent behavior: emotional self-awareness, emotional control, self-esteem, positive social skills, social problem solving, conflict resolution, or team work. In this review, violence refers to both victimization and perpetration.	Systematic Review	The Community Guide: http://www.thecommunityguide.org/violence/schoolbasedprograms.html
Nutrition	Mind, Exercise, Nutrition...Do it! (MEND) Program The goal of MEND is to reduce global obesity levels by offering free healthy living programs through communities and allowing families to learn about weight management. The MEND program focuses on educating children at an early age about healthy living and providing parents with solutions on how to promote good habits at home.	Evidence-Based	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/mind-exercise-nutritiondo-it-mend-program
Nutrition	Video Game Play This program utilized two videogames called "Escape from Diab" (Diab) and "Nanoswarm: Invasion from Inner Space" (Nano) to promote healthier behavior changes to reduce adverse health effects	Evidence-Based	Healthy Communities Institute: http://cdc.thehcn.net/index.php?controller=index&module=PromisePractice&action=view&pid=3826

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
	such as obesity and cardiovascular diseases among youth aged 10-12.		
Nutrition	Community Coalition Supports Schools in Helping Students Increase Physical Activity and Make Better Food Choices HEALTHY (Healthy Eating Active Lifestyles Together Helping Youth) Armstrong, a community-based coalition in rural Armstrong County, PA, adopted elements of the national We Can! Ways to Enhance Children's Activity & Nutrition) program to help children improve their nutritional habits and get more physical activity. The coalition sponsors local marketing that promotes healthy behaviors, assists Armstrong School District elementary schools in providing students and parents with opportunities to learn about and engage in healthy behaviors, and hosts various community events that do the same.	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/community-coalition-supports-schools-in-helping-students-increase-physical-activity-and-make-better-food-choices
Nutrition	County, City, and Community Agencies Support Childcare Centers and Parents in Improving Nutrition and Physical Activity Habits of Preschoolers Over a 2-year period, the Wayne County Health Department, the Partnership for Children of Wayne County, and the Goldsboro Parks and Recreation Department worked with several nonprofit groups to promote better nutrition and increased physical activity among preschoolers who attend eight local childcare centers. Key program components included refurbishing a local park and offering group events there, training childcare center staff on healthy eating and exercise, and planting gardens at each center.	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/county-city-and-community-agencies-support-childcare-centers-and-parents-in-improving-nutrition-and-physical-activity-habits-of

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
Nutrition	A community intervention reduces BMI z-score in children: Shape Up Somerville first year results The objective was to test the hypothesis that a community-based environmental change intervention could prevent weight gain in young children (7.6 +/- 1.0 years). A non-randomized controlled trial was conducted in three culturally diverse urban cities in Massachusetts. Somerville was the intervention community; two socio-demographically-matched cities were control communities. Children (n = 1178) in grades 1 to 3 attending public elementary schools participated in an intervention designed to bring the energy equation into balance by increasing physical activity options and availability of healthful foods within the before-, during-, after-school, home, and community environments. Many groups and individuals within the community (including children, parents, teachers, school food service providers, city departments, policy makers, healthcare providers, before- and after-school programs, restaurants, and the media) were engaged in the intervention.	Evidence-Based	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/a-community-intervention-reduces-bmi-z-score-in-children-shape-up-somerville-first-year-results
Obesity	Statewide Collaborative Combines Social Marketing and Sector-Specific Support to Produce Positive Behavior Changes, Halt Increase in Childhood Obesity	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/statewide-collaborative-combines-social-marketing-and-sector-specific-support-to-produce-positive-behavior-changes-halt-increase
Obesity	Text4Diet: A Text Message-based Intervention for Weight Loss Text4Diet™is a mobile phone-based intervention tool that addresses dietary, physical activity and sedentary behaviors with the goal of promoting and sustaining weight loss.	Evidence-Based	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/text4diet-a-text-message-based-intervention-for-weight-loss

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
Obesity	Health Education to Reduce Obesity (HERO) The mobile program brings hands-on nutrition education, health screenings, fitness training, and healthy lifestyle promotion to local elementary schools in Jacksonville, Florida and the surrounding area.	Promising Practice/Good Idea	Healthy Communities Institute: http://cdc.thehcn.net/index.php?controller=index&module=PromisePractice&action=view&pid=4003
Obesity	Healthy Eating Lifestyle Program (HELP) Healthy Eating Lifestyle Program's (HELP) main goal was to help overweight children aged 5-12 years and their families adopt healthier eating habits and increase physical activity. The program intervened with children before they reach adolescents and focused on long-term lifestyle changes in order to prevent the most long-term morbidity	Effective Practice	Healthy Communities Institute: http://cdc.thehcn.net/index.php?controller=index&module=PromisePractice&action=view&pid=3542
Obesity	Pounds Off Digitally (POD) Pounds Off Digitally offers weight loss intervention via a podcast (audio files for a portable music player or computer) has the advantage of being user controlled, easily accessible to those with the internet, and mobile. Over the course of 12 weeks overweight adults receive 24 episodes of a weight loss podcast based on social cognitive theory.	Effective Practice	Healthy Communities Institute: http://cdc.thehcn.net/index.php?controller=index&module=PromisePractice&action=view&pid=3209
Obesity	Obesity Prevention and Control: Worksite Programs Worksite nutrition and physical activity programs are designed to improve health-related behaviors and health outcomes. These programs can include one or more approaches to support behavioral change including informational and educational, behavioral and social, and policy and environmental strategies.	Systematic Review	The Community Guide: http://www.thecommunityguide.org/obesity/workprograms.html

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
Obesity	Obesity Prevention and Control: Behavioral Interventions to Reduce Screen Time Behavioral interventions aimed at reducing screen time are recommended for obesity prevention and control based on sufficient evidence of effectiveness for reducing measured screen time and improving weight-related outcomes. Screen time was reduced by 36.6 min/day (range: -26.4 min/day to -55.5 min/day) and a modest improvement in weight-related outcomes was observed when compared to controls. Most of the interventions evaluated were directed at children and adolescents. Behavioral interventions to reduce screen time (time spent watching TV, videotapes, or DVDs; playing video or computer games; and surfing the internet) can be single-component or multicomponent and often focus on changing screen time through classes aimed at improving children's or parents' knowledge, attitudes, or skills.	Systematic Review	Healthy People 2020: http://www.healthypeople.gov/2020/tools-resources/evidence-based-resource/obesity-prevention-and-control-behavioral-interventions
Physical Activity	Community Coalition Supports Schools in Helping Students Increase Physical Activity and Make Better Food Choices HEALTHY (Healthy Eating Active Lifestyles Together Helping Youth) Armstrong, a community-based coalition in rural Armstrong County, PA, adopted elements of the national We Can! Ways to Enhance Children's Activity & Nutrition) program to help children improve their nutritional habits and get more physical activity. The coalition sponsors local marketing that promotes healthy behaviors, assists Armstrong School District elementary schools in providing students and parents with opportunities	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/community-coalition-supports-schools-in-helping-students-increase-physical-activity-and-make-better-food-choices

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
	to learn about and engage in healthy behaviors, and hosts various community events that do the same.		
Physical Activity	County, City, and Community Agencies Support Childcare Centers and Parents in Improving Nutrition and Physical Activity Habits of Preschoolers Over a 2-year period, the Wayne County Health Department, the Partnership for Children of Wayne County, and the Goldsboro Parks and Recreation Department worked with several nonprofit groups to promote better nutrition and increased physical activity among preschoolers who attend eight local childcare centers. Key program components included refurbishing a local park and offering group events there, training childcare center staff on healthy eating and exercise, and planting gardens at each center.	Evidence-Based (Moderate)	CDC Community Health Improvement Navigator: http://wwwn.cdc.gov/CHIdatabase/items/county-city-and-community-agencies-support-childcare-centers-and-parents-in-improving-nutrition-and-physical-activity-habits-of
Physical Activity	The effectiveness of urban design and land use and transport policies and practices to increase physical activity: a systematic review. Urban design and land use policies and practices that support physical activity in small geographic areas (generally a few blocks) are recommended based on sufficient evidence of their effectiveness in increasing physical activity. Street-scale urban design and land use policies involve the efforts of urban planners, architects, engineers, developers, and public health professionals to change the physical environment of small geographic areas, generally limited to a few blocks, in ways that support physical activity. Policy instruments employed include: building codes, roadway design	Systematic Review	Healthy People 2020: http://www.healthypeople.gov/2020/tools-resources/evidence-based-resource/the-effectiveness-of-urban-design-and-land-use-and-3

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
	standards, and environmental changes. Design components include: improving street lighting, developing infrastructure projects to increase safety of street crossing, using traffic calming approaches (e.g., speed humps, traffic circles), and enhancing street landscaping.		
Physical Activity	Activity Bursts in the Classroom (ABC) Fitness Program Activity Bursts in the Classroom (ABC) Fitness Program is a classroom based physical activity program for elementary school children. The program combines brief bursts of classroom-based activity with parental education and community involvement. Bursts of classroom activity aim to replace time spent by teachers calming down classrooms and improving concentration among students. Bursts of activity are conducted during downtime in the classroom, with a goal of 30 minutes of activity a day. Each activity burst has three components: warm up, core activity, and cool down. Warm up includes stretching or light aerobic activity, the core activity includes strength or aerobic activity, and the cool down consists of stretching or low-intensity activity. Teachers are given freedom to choose the activities appropriate for their classroom.	Evidence-Based	Healthy Communities Institute: http://cdc.thehcn.net/index.php?module=promisepractice&controller=index&action=view&pid=3616
Physical Activity	Behavioral and Social Approaches to Increase Physical Activity: Enhanced School-Based Physical Education Enhanced school-based physical education (PE) involves curricular and practice-based changes that increase the amount of time that K-12 students engage in moderate- or vigorous-	Systematic Review	The Community Guide: http://www.thecommunityguide.org/pa/behavioral-social/schoolbased-pe.html

TABLE 19. BEST PRACTICES AND INTERVENTIONS FOR TVRH SERVICE AREA HEALTH ISSUES/NEEDS.

Issue	Practice or Intervention	Effectiveness	Source
	intensity physical activity during PE classes. Strategies include the following: •Instructional strategies and lessons that increase physical activity (e.g., modifying rules of games, substituting more active games for less active ones) •Physical education lesson plans that incorporate fitness and circuit training activities		