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Paoli Hospital Community Health Assessment

May 2013

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Main Line Health System (MLH) has conducted a Community Health Needs Assessment (CHNA) at each of its hospitals with the purpose to better understand and respond to the health care needs of its communities. This CHNA, finalized in March 2013 is <u>specific to Paoli Hospital (PH)</u>, and builds upon a previous System-wide Main Line Health CHNA which was completed and published in 2009.

The Process

The CHNA was compiled by analyzing population and demographic data and comparing health indicators such as health status, health conditions, and incidence and mortality rates to local, regional and national rates. Additional comparisons were made to understand influences on health, such as the use of preventive health services, access to care, mental health, children's health and factors influencing the health of older adults. Some select economic, educational and behavioral influences were also reviewed. The data presented in the report was obtained from both public and proprietary sources. Input was also sought to represent broad interests of the community and obtained via a series of community surveys.

The PH report contains information and commentary specific to PH as well as comparative information from two other suburban MLH System acute care hospitals: Bryn Mawr Hospital (BMH) and Riddle Hospital (RH). MLH also conducted a CHNA for its other system hospitals: Lankenau Medical Center (LMC) and Bryn Mawr Rehabilitation Hospital (BMRH). However, these reports are separate due to the characteristics of the communities they serve.



Community Health Needs

This CHNA contains information on numerous health indicators in various sections of the report including: population and demographics, community-based data and community survey results. This information was utilized to understand the health status and identify the health needs of the community. Subsequently, the following criteria was considered to select community health need priorities.

- The health indicator is at lower performance than the regional, state and national benchmark, or the Healthy People 2020 target (HP2020)
- The health indicator reflects a national focus for improvement
- There are community stakeholder interests in the health indicator
- A special population was identified that warrants additional services

Additionally, a number of data observations were developed from which the following priorities were identified. The priorities are of equal importance.

- Obesity
- Senior Care
- Mental Health
- The Uninsured
- Cultural / Diversity

Supporting data for the selection of the health priorities follows. This information is also contained throughout the CHNA document.

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Criteria: Focus area:	Worse than benchmarks or unhealthy trend	National Focus for Improvement	Community stake - holder interest	Sub-group population with special needs
Obesity	*	~	1	
Mental Health		~	*	
Senior Care		~	V	√
Uninsured		~	*	√
Cultural / Diversity			<	✓

Obesity

The percentage of obese adults in the PH area is 20%, which is below the Southeastern PA (SEPA) level of 26%. However, the percentage of obese adults has been trending upward since the year 2002. Additionally, obesity was identified as one of the top health concerns by community leaders, school nurses and other community members. Individuals who are overweight and obese have an increased risk for type 2 diabetes, heart disease and certain types of cancer.

Mental Health

- 13% of adults in the PH area report having been diagnosed with a mental health condition and 60% of those adults report taking medication or receiving a type of treatment for depression or other mental health condition.
- Adults reporting high stress levels has increased from 15% to over 20% from 2002 to 2010. Stress has
 also been identified as a top issue impacting the quality of health of area adults in an online
 study as well as the MLH physician medical staff.



Senior Care

In the PH CHNA area, older adults make up 12.7% of the population, with this age group having the greatest projected percent change of 18% from 2012 to 2017. This represents the continued aging of the baby boomer generation. Nearly 60% of older adults plan on staying in their current homes for 10 years and almost one in four older adults has fallen in the past year, which can cause injury or hospitalization. There is a national focus on the older adult population emphasizing the importance to promote healthy outcomes through a variety of programs such as disease and injury prevention education, promotion of self management, socialization, caregiver support and collaboration among hospitals, older adults, government, community and advocacy resources.¹

Uninsured

 There is a low percentage of persons in the Paoli area who have no insurance or who are at or below the federal poverty level (FPL). However, there are pockets of persons within the area in need of subsidized health care services. These areas have been identified and targeted for specific outreach since uninsured people are less likely to receive medical care, more likely to die early and more likely to have poor health status.¹

Cultural / Diversity

 There are pockets of diverse populations in the PH community. Although there is limited information on these sub-populations, approximately 7% of the PH service area population is Asian which is higher than SEPA at 5.7%. The largest concentration live in affluent neighborhoods, however there are communities of varying socioeconomic status. The PH area Asian population is predominately South Asian and may contain persons with varying health needs. This has prompted PH, as part of the MLH system, to consider cultural diversity as a priority. PH will be also be focusing on the South Asian subpopulation.

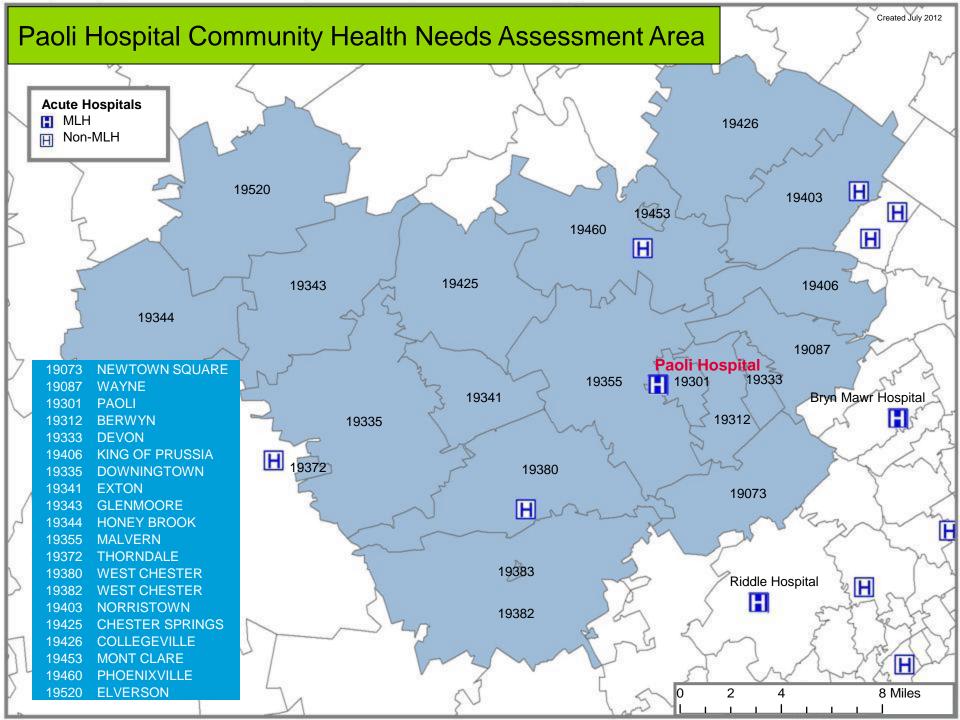
Paoli Hospital will address these priorities with action plans to positively influence the health and well-being of the PH community.



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¹ Healthy People 2020: www.healthypeople.gov/2020/topicsobjectives2020

Population and Demographics



Population counts and projections

	Total Population							
Areas	2012 Pop	% Change						
Bryn Mawr	360,217	362,103	1,886	0.5%				
Paoli	468,713	488,447	19,734	4.2%				
Riddle	179,612	185,409	5,797	3.2%				
SEPA	4,041,357	4,122,948	81,591	2.0%				

The Paoli CHNA area covers parts of two of the fastest growing counties (Chester and Montgomery) in Pennsylvania. This location reflects the 4.2% population growth in the CHNA area.



Socio-demographics

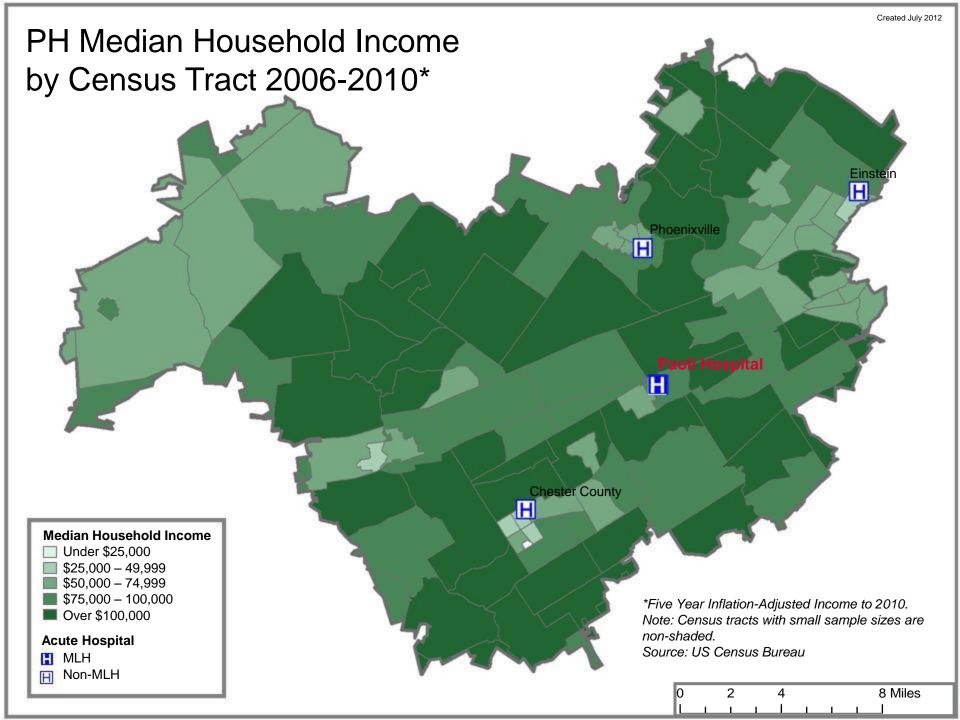
2012 Household (HH) Data								
Areas	Pct of Adults with College Degree							
Bryn Mawr	140,492	\$84,966	59%					
Paoli	175,511	\$87,632	60%					
Riddle	68,263	\$89,524	52%					
SEPA	1,551,576	\$68,192	42%					

The population of the Paoli CHNA area has a range of socio-demographic characteristics as indicated on the following map. Overall, the CHNA is affluent with 60% of the adults in the area having a college degree and the median household income is over \$87,000.



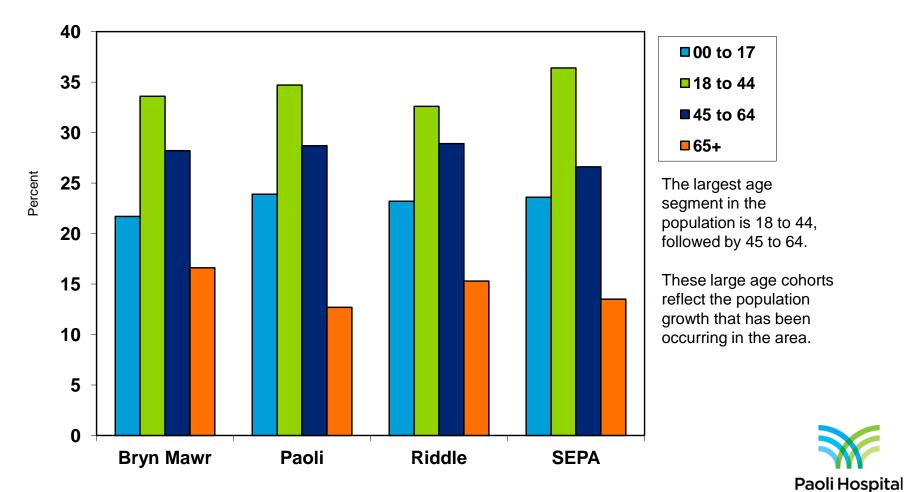
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Note: CHNA area median household incomes are reflective of the Zip codes in the area but should be used as reference only. Sources: Truven Health; PHMC Southeastern Pennsylvania Household Health Survey, 2010.



Age distribution

Percentage of population by age group – 2012

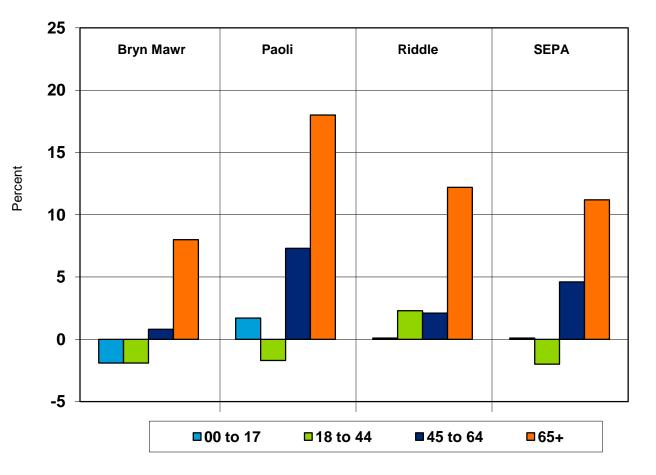


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Projected shift – 2012 to 2017

Percentage change of population by age group



The 65+ age segment shows the largest percentage growth. This represents the continued aging of the baby boomer generation.

Of note is the increase of 0-17 age cohort. This projected growth results in part from babies being born to the large 18-44 age segment.



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Race/Ethnicity

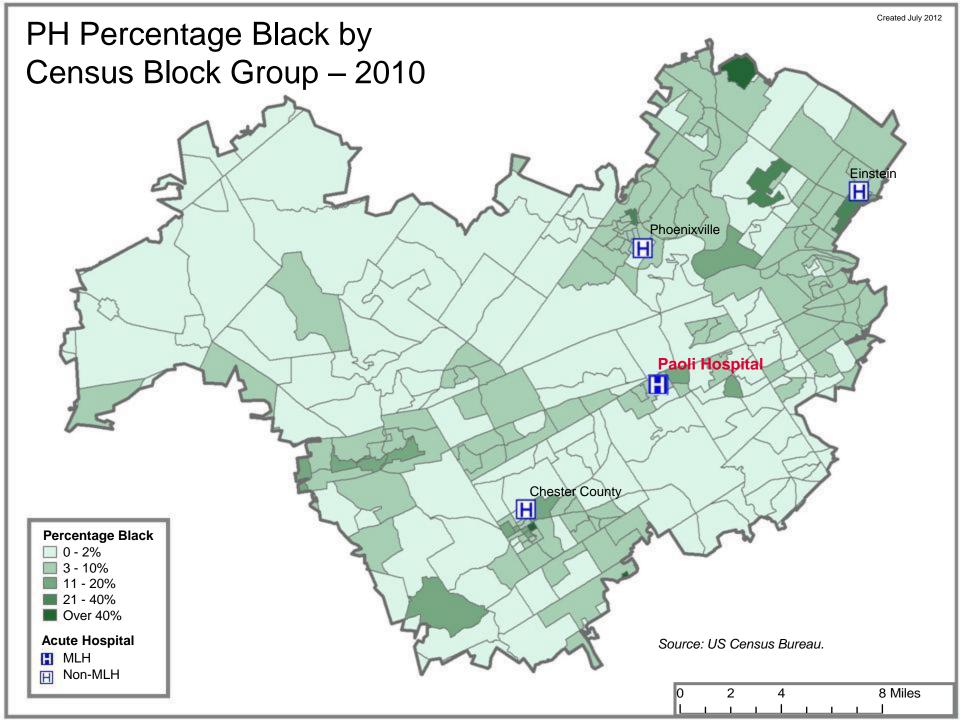
Percentage of population by racial and ethnic group – 2012

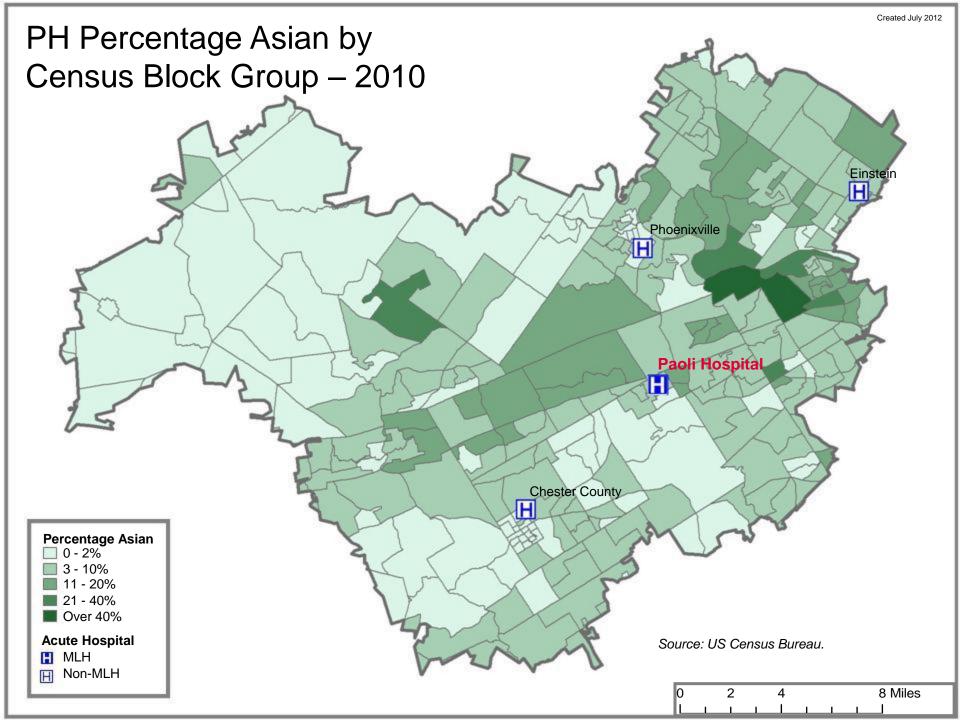
Area	White	Black	Hispanic	Asian	Other
Bryn Mawr	84.8	4.4	2.7	6.5	1.7
Paoli	83.1	4.8	3.7	6.7	1.7
Riddle	84.5	7.5	2.4	3.9	1.6
SEPA	62.6	21.8	7.9	5.7	2.1

The Paoli CHNA area is predominately white at 83% of the population. Asians make up 7% of the population; the Asian population is predominately South Asian.



Sources: Truven Health; "More Indians call Phila. Area Home" The Philadelphia Inquirer, July 3, 2011.





Religion

Percentage of population by religion – 2010

Area	Christian*	Catholic	Jewish	None	Other
Bryn Mawr	26.4	40.0	9.6	14.8	9.1
Paoli	34.3	34.8	3.2	17.2	10.4
Riddle	34.1	40.3	2.8	14.9	7.9
SEPA	36.4	33.9	4.9	14.2	10.6

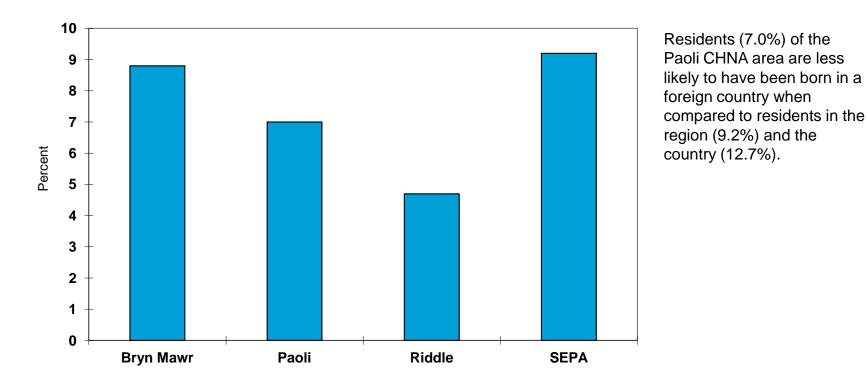
The religious make-up of the Paoli CHNA area population is similar to that of SEPA.



*Includes Protestant, Presbyterian/Baptist/Other Christian Denominations Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Immigration

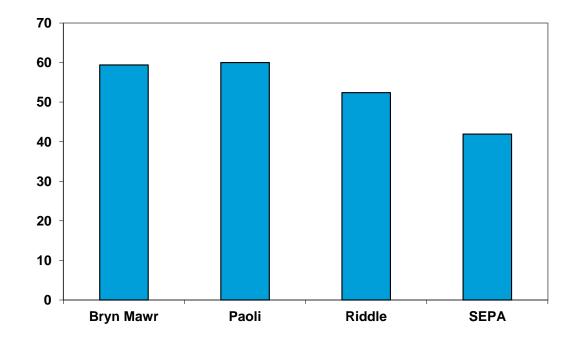
Percentage of adults born in another country*



Education

Percent

Percentage of adults with college degree or higher



Higher education levels, as seen in the Paoli area (60%), are associated with jobs that provide health insurance.

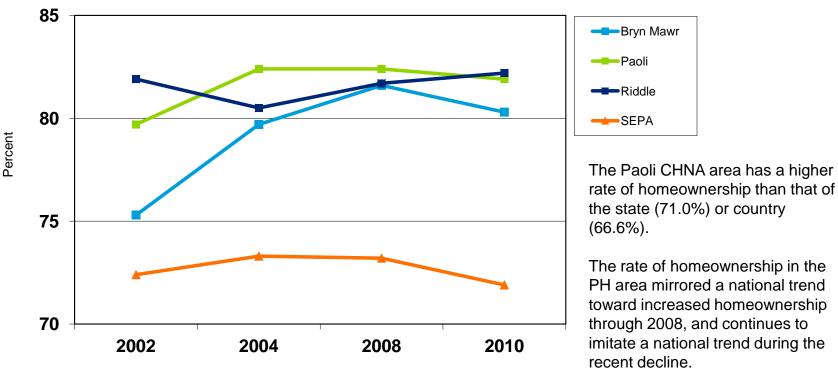
Numerous public health studies link educational attainment with health and well-being. Those who have a higher level of education and income have the best health outcomes, including decreased mortalitymorbidity and longer life spans.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010; C. Cannuscio, University of Pennsylvania, "The impact of the economic crisis on your health," presentation at the Philadelphia College of Physicians, March 2009.

Home ownership

Percentage of adults who own their own home by year



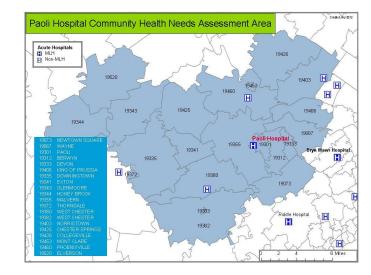
toward increased homeownership imitate a national trend during the



Sources: U.S. Census Bureau, American Community Survey, 2010. PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2008, 2010.

Observations – community characteristics

Geography -- The Paoli Community Health Needs Assessment (CHNA) area touches upon a wide range of communities. The CHNA area reaches from King of Prussia in the east to Honey Brook in the west, and from West Chester in the south to Collegeville in the north. The zip codes included in the assessment area are those zip codes where Paoli Hospital provides health care services to 10% or more of the population; twenty (20) USPS defined geographic zip codes meet the criteria for inclusion. These twenty zip codes account for 77.0% of the total discharges at Paoli Hospital.



- **Community Characteristics** -- The area has a high percentage of college-educated adults and most zip codes have a high household median income. A high level of homeownership also indicates a high degree of stability in the area. As in any area, there are pockets of the population (see median income map) that are not as affluent as the area in total.
- Aging -- The Paoli CHNA area has a substantial older (age 65+) population (12.7%) which is projected to be the fastest growing of the age segments.
- Pediatrics -- The age 0-17 population is also expected to increase; this increase is not unexpected based on the high percentage of the population in the child-rearing ages of 18-44 in the area.
- **Sub-Populations** -- The population is predominately white and fits the religious break-down of the SEPA area. The statistics do not show a high-percentage of any one sub-population in the area. The largest racial sub-population is Asian, particularly South Asian at 6.7%. The largest Paoli Hospital concentration live in affluent neighborhoods according to reported data, however, there are communities of varying socio-economic status.

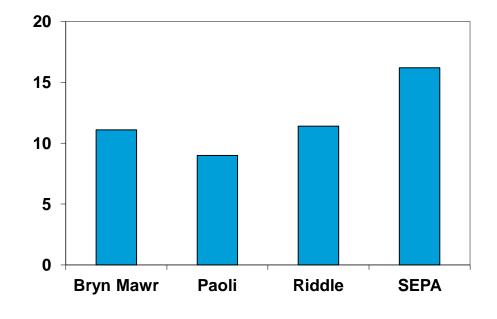


Community Analysis

Health Status and Chronic Conditions

Health status

Adults self-reported health status – fair or poor



Adults are less likely to report fair or poor health in the Paoli CHNA area (9.0%) compared to SEPA (16.2%). This difference is reflective of the affluence of the area. The "My Healthcare Voice" online panel covering a comparable area reported that 12% of adults have "fair" or "poor" health.

PA BRFSS: 16.0%

Self-reported health status correlates with socio-economic indicators, such as poverty. Respondents from the 2010 PHMC Household Health Survey are nearly three times more likely to report fair or poor health if living under the 200% FPL (31.1%) compared to respondents over the 200% mark (11.1%). Fair or poor health is also correlated with chronic conditions. For instance, 44.0% of adults with a chronic condition are in fair/poor health vs. 11.5% without a chronic condition (2008 survey – SEPA area).



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010; "My Healthcare Voice" online panel, November 2011.

Chronic condition – adults by age group

40 About one in three older adults are 35 coping with a chronic condition, 30 which is more than the other age group. 25 Percent Paoli area residents 20 are less likely to report having a 15 chronic condition in either age group 10 compared to SEPA. 5 0 **Bryn Mawr** Riddle SEPA Paoli ■ 18 to 64 **65**+

Percentage of adults with a chronic condition



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Percent

Types of chronic conditions - all adults

30 25 20 15 10 5 0 **Bryn Mawr** Paoli Riddle **SEPA** Diabetes Asthma Arthritis Heart

*Q1: "Have you ever been told by a doctor or other health professional that you have or had: a. Asthma; b. Heart disease, including angina, congestive heart failure, a heart attack or other heart problems; c. Diabetes?" Q2: "Do you have arthritis, such as osteoarthritis, rheumatoid arthritis, gout, fibromyalgia, or lupus? Note: The heart disease survey question is not comparable to BRFSS because BRFSS includes stroke. Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010 for Asthma & Diabetes, 2008 for Arthritis & Heart Problems.

Arthritis is the most common chronic condition among adults in the Paoli CHNA area.

The rates of diabetes, asthma and heart disease are lower than the SEPA rates.



Adults who have a chronic condition by type of condition*

Diabetes by age

Percentage of adults diagnosed with diabetes by age*

	18-64	65+
Bryn Mawr	6.3	13.1
Paoli	5.5	17.4
Riddle	8.0	12.5
SEPA	8.2	21.9

Older adults (age 65+) in the Paoli area are almost three times as likely than younger adults to have been diagnosed with diabetes. A lower percentage of adults in the Paoli area reported being diagnosed with diabetes than adults in SEPA.



*Q: "Have you ever been told by a doctor or other health professional that you have or had diabetes?" Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

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Prevalence of heart disease

Heart Disease Estimates: 2011 Prevalence Rates (Per 1,000)*

Area	Population	Arrhythmias	Congestive Heart Failure	Hypertension	Ischemic Heart Disease
Bryn Mawr	359,499	54.04	24.45	272.14	53.97
Paoli	465,662 45.41		19.78 243.67		44.15
Riddle	184,581	50.68	23.84	265.91	51.27
SEPA	4,066,681	46.41	21.47	254.28	47.84

The heart disease prevalence rates are lower in the Paoli CHNA area than SEPA.

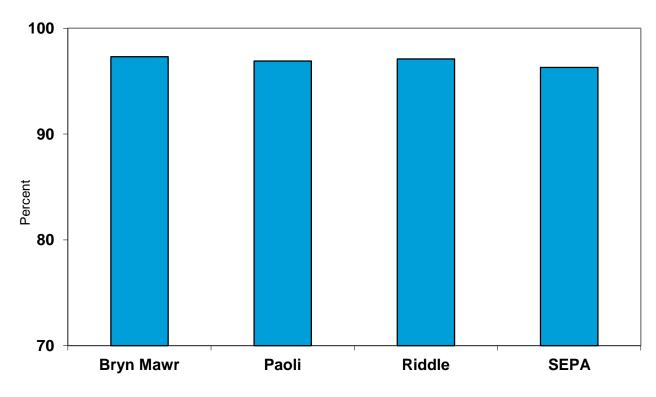


*Prevalence is the number of persons with a specified condition in the population at any one time. Note: CHNA area rates are calculated on county age/sex rate applied to the age/sex zip code populations in the CHNA area. These rate may not reflect variations in local cases. Source: Thomson Reuters.

Screening for heart disease - risk factors

Healthy People 2020: 92.6%

Adults who have had their blood pressure checked in past two years



Residents in the Paoli CHNA area exceed the SEPA percentage as well as the Healthy People 2020 target for percentage of adults who have had their blood pressure tested in the past two years.

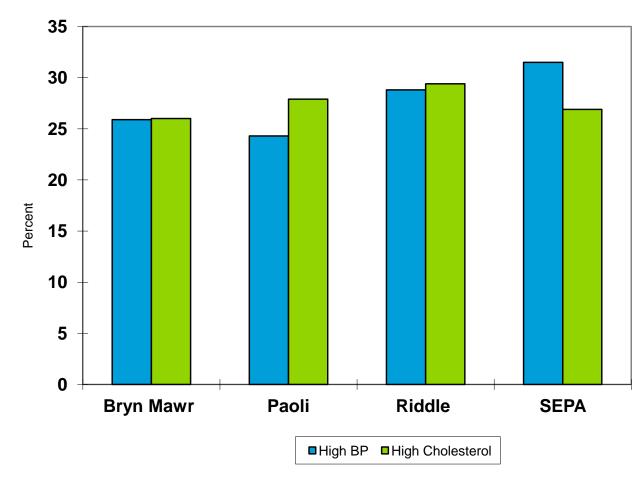


Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Heart disease risk factors

Healthy People 2020: 26.9% High Blood Pressure 13.5% High Cholesterol

Adults with high blood pressure and high cholesterol



The Paoli CHNA area is below SEPA in terms of high blood pressure and higher than adults in SEPA who have high cholesterol.

The Paoli CHNA area also compares favorably (24.3%) to the Healthy People target (26.9%) for hypertension. However, it is above (27.9%) the Healthy People target for high cholesterol (13.5%) which is unfavorable.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010 High BP and 2008 for High Cholesterol.

Hypertension & high blood pressure by age

Percentage of adults diagnosed with hypertension or high blood pressure*

	18-64	65+
Bryn Mawr	18.3	52.6
Paoli	17.4	53.2
Riddle	22.2	55.9
SEPA	25.0	58.9

Adults in the Paoli CHNA area are less likely than adults in SEPA to have been diagnosed with hypertension and high blood pressure.

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*Q: "Have you ever been told by a doctor or other health professional that you have high blood pressure or hypertension?" Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Cancer incidence

Cancer Estimates - 2011 Incidence Rates (Per 100,000)*

Area	Population	Breast	Cervical	Colorectal	Lung	Pancreas	Prostate
Bryn Mawr	359,499	91.91	5.09	61.18	71.86	17.08	107.88
Paoli	465,662	58.82	4.69	43.02	56.78	14.38	101.45
Riddle	184,581	109.98	4.93	68.78	72.99	15.96	113.95
SEPA	4,066,681	61.61	5.25	49.67	53.24	15.08	80.19

The cancer incidence rates are better in the Paoli CHNA area than in SEPA except for lung and prostate which are higher than the regional rate. The cancer incidence rates in the Paoli area are lower in every case than the Riddle and Bryn Mawr areas.

* Incidence equals the number of new cases occurring each year in a given population. Note: CHNA area rates are calculated on county age/sex rate applied to the age/sex zip code populations in the CHNA area. County rates may not totally synch to local cases. Source: Thomson Reuters.



Leading causes of death

Average age-adjusted mortality rates per 100,000 people

Area	All causes	Heart	Stroke	Lung cancer	Breast cancer	Accidents/ drugs	Pneu- monia	Suicide
Bryn Mawr	627.16	166.76	44.49	39.23	26.23	22.49	19.01	6.25
Paoli	671.61	190.69	40.40	43.04	25.42	22.72	19.08	7.54
Riddle	732.38	195.62	51.64	46.41	28.44	29.19	21.42	8.03
SEPA	788.71	201.30	47.44	52.01	26.55	34.22	16.86	9.04

The mortality rates are better in the Paoli CHNA area than in SEPA except for pneumonia which is higher than the regional rate. The mortality rates in the Paoli area are lower then Riddle for all causes but vary by cause as compared to the Bryn Mawr area.



Source: PHMC Community Health Data Base - Pennsylvania Department of Health official death records 2003-2006. Details about age adjustment methodology are available for review.

Observations – chronic conditions

Health Status -- The Paoli CHNA area is overall a healthy population; only 9% of the adults report their health to be fair or poor. The health of the population is reflective of the good socio-demographic characteristics of this population.

Robert Wood Johnson Foundation, "County Health Rankings & Roadmaps" website ranks Chester County as the 2nd healthiest county in PA and Montgomery County as the 5th healthiest county; these rankings are reflected in the overall health of the population of the Paoli CHNA area.

Chronic Conditions -- About one in three older adults have a chronic condition in the Paoli CHNA area.

Arthritis -- It is the most common of the chronic conditions for adults.

- **Diabetes** -- While the percentage of adults diagnosed with diabetes is lower than SEPA, those age 65+ are more likely to have been diagnosed than older adults in the other suburban MLH hospital areas. The CDC has reported that the number of Americans diagnosed with diabetes has tripled since 1980. This increase has been linked to obesity, inactivity and old age. However, between 1997 and 2006, deaths rates for people with diabetes dropped substantially.
- Heart Disease -- Paoli CHNA residents and their health care providers are doing an excellent job in screening for clinical risk factors, namely high blood pressure. While the prevalence of heart disease is lower than the SEPA population, over one in four adults have high blood pressure or high cholesterol with significantly more adults age 65+ having high blood pressure. Heart disease is the leading cause of death in the Paoli CHNA area.

Stroke -- Stroke is another primary cause of mortality. Fortunately, the age adjusted mortality rate is lower than for SEPA.

Cancer -- Cancer is a leading cause of death in the Paoli area as it is in the state. Prostate and breast cancer have the highest incidence rates of cancer in the Paoli area; there are higher incidence rates for lung and prostate cancer than in the SEPA population. Public health efforts regarding cancer focus on prevention and detection of the disease by addressing risk factors such as smoking cessation, diet and exercise. These issues are covered in detail in the next section.



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Community Analysis

Preventive Health

Cervical cancer screening

Time since last PAP test (age 21-65) 100 90 80 70 60 Percent 50 40 30 20 10 0 **Bryn Mawr** Riddle **SEPA** Paoli ■<= 2 yr ■> 2 yrs & <= 5 yrs ■> 5 yrs & <= 10 yrs ■> 10 yrs

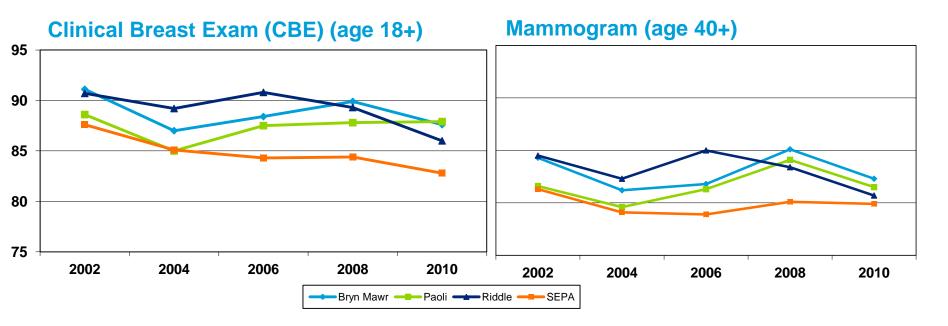
Note: According to the American Cancer Society (ACS) guidelines, PAP tests should not begin until age 21 and will vary by age and previous diagnosis.

Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

The majority of women 21 to 65 years of age have received a PAP test within the last two years. PAP screening rates are similar between the Paoli CHNA area and SEPA.



Cancer screenings: breast screening*



Among all women 18 years of age and older, there is a consistently high percentage having a clinical breast exam. The percentage of woman having a mammogram is lower for women 40 and older which is the recommended age to begin getting a mammography screening. In the PH area, after several years of increases in mammography screening there was a decline in 2010.

Note: According to the American Cancer Society (ACS) guidelines, CBE should occur about every three years for women in their 20s and 30s and every year for those over the age of 40. The ACS continues to recommend that yearly mammograms begin for women at age 40.

*Screenings within last two years.

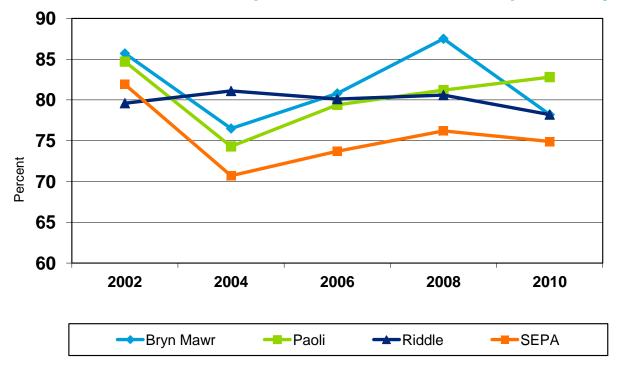
Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2006, 2008, 2010.



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Cancer screenings: prostate

Men who received prostate exam within the past two years (age 50+)



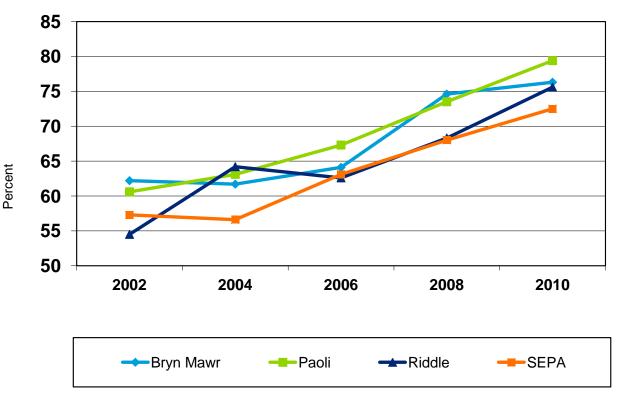
Prostate cancer screening percentage has been increasing in the Paoli area. The percent of men screened is higher than for SEPA and it is higher than BMH and RH.

Note: The prostate exam is a PSA and/or digital rectal exam. The American Cancer Society (ACS) recommends that beginning at age 50, men should discuss with their doctor the pros and cons of testing for prostate cancer; for black men, the discussion should occur at age 45 if there is a family history before age 65. Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2006, 2008, 2010.



Cancer screenings: colon

Adults who have received a colonoscopy or sigmoidoscopy* (age 50+)



The trend of adults receiving a colon cancer screening is increasing in the Paoli CHNA area.

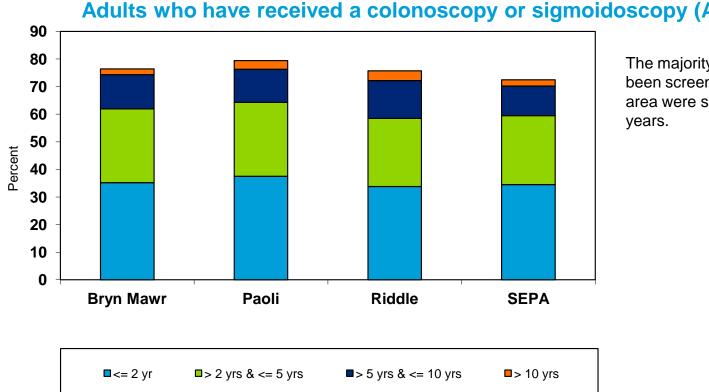
*Q: "About how long has it been since you last had a colonoscopy or a sigmoidoscopy? These tests are performed to screen for colorectal cancer."

Recommended screening intervals vary by test but should begin for men and women at age 50. Source: PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2006, 2008, 2010.



Cancer screenings: colon

Healthy People 2020: 70.5% (Ages 50-75)



Adults who have received a colonoscopy or sigmoidoscopy (Age 50+)

The majority of those who have been screened in the Paoli CHNA area were screened in the past five

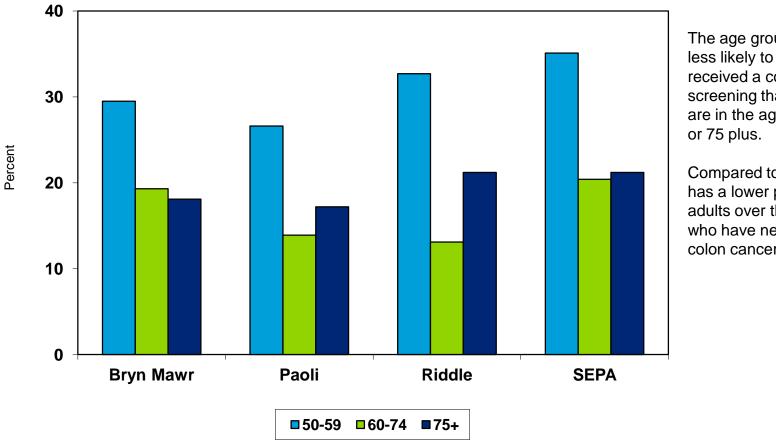


Recommended screening intervals vary.

Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Colon cancer screenings by age

Adults who have never received a colonoscopy or sigmoidoscopy (Age 50+)



The age group of 50-59 is less likely to have received a colon cancer screening than those who are in the age group 60-74 or 75 plus.

Compared to SEPA, Paoli has a lower percentage of adults over the age of 50 who have never had a colon cancer screening.

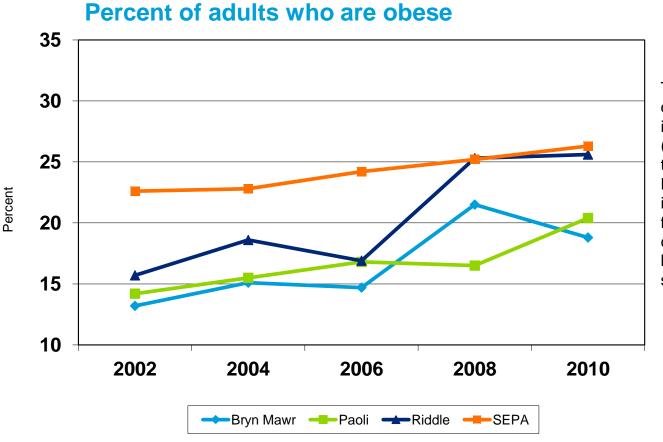


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Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Adult obesity

Healthy People 2020: 30.5% PA BRFSS 2010: 29%



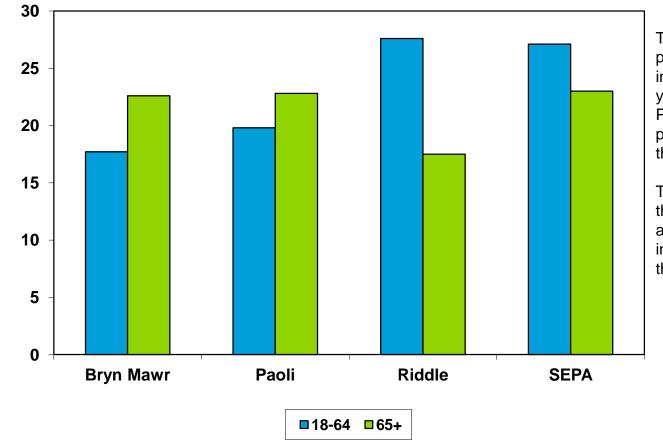
The percent of adults who are obese in the Paoli CHNA area is lower than in the state (29%), the Healthy People target (30.5%) and in SEPA. However, the rate has been increasing and obesity is a risk factor for poor health and chronic conditions such as heart disease, diabetes and stroke.

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"Obese" individuals are determined by the Basal Metabolic Index (BMI) calculation of height and weight. Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2006, 2008, 2010. Percent

Adult obesity

Adults who are obese by age



There is a higher percentage of obesity in older adults than in younger adults in the Paoli CHNA area. Both percentages are lower than SEPA.

The CDC has reported that obesity in older adults is related to the increase in diabetes in this age group.

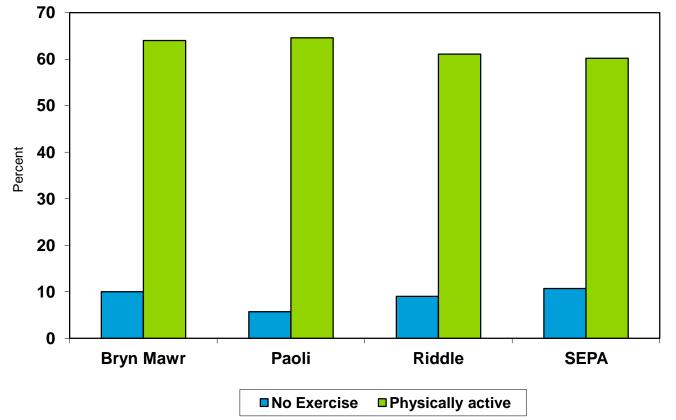


Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Exercise

No exercise: Healthy People 2020: 32.6% PA BRFSS 2010: 26% *Regular physical Activity:* Healthy People 2020: 47.9%

Adults who exercise or are physically active on a regular basis



The majority of adults report being "physically active" on a regular basis. Only 6% of adults report being inactive in the Paoli CHNA area. The exercise profile is similar to that of all adults in SEPA.

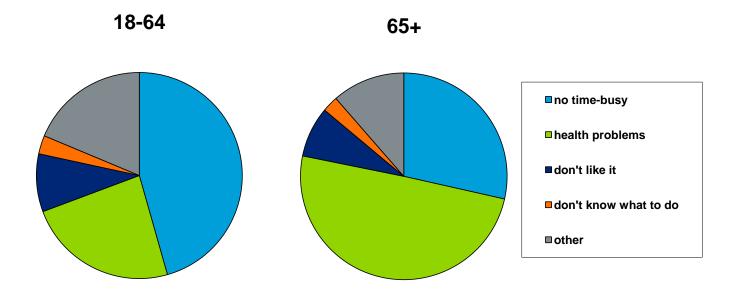
Even with this level of an active population, obesity is increasing.



Note: Physically active represents exercising 3-7 days per week.

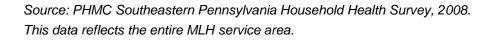
Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Barriers to exercise by age



The barriers to exercise vary by age – older adults are more likely to report that "health problems" prevent them from getting exercise, whereas younger adults say they don't have the time or they are too busy.

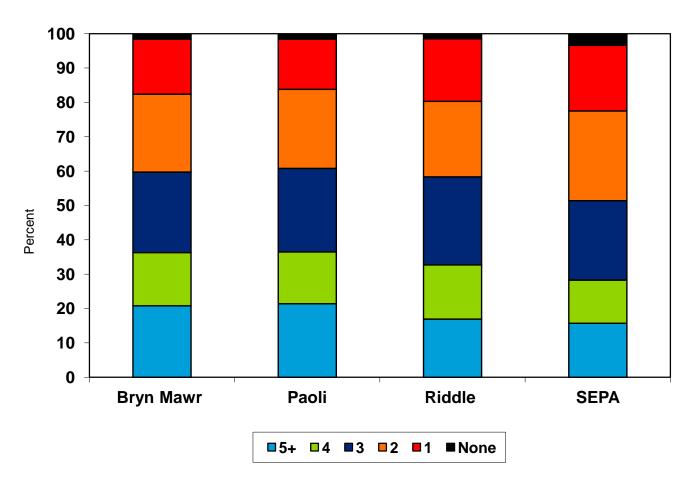
Some of the "other" barriers include a perception that exercise is too expensive, that the individual is already in good health and doesn't need to exercise, that there is no place in the neighborhood to walk, run or bike and no child care.





Nutritional goal

Servings of fruits and vegetables eaten by Adults on a daily basis



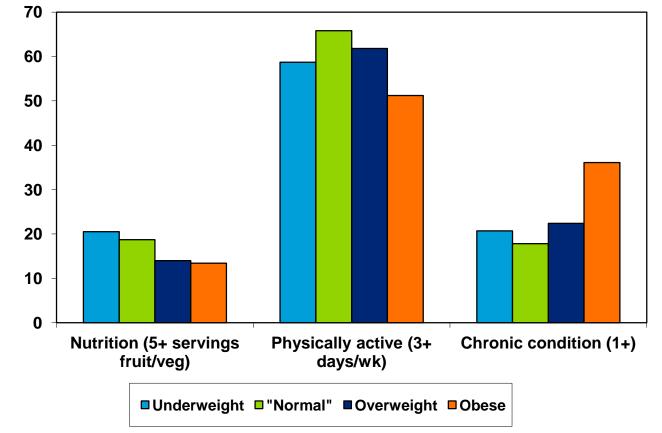
When compared to the statewide average, adults in the Paoli CHNA area are behind in daily consumption of fruit and vegetables. In Pennsylvania, 25% of adults indicated in 2007 they were eating fruits and vegetables five or more times a day (BRFSS). However, adults in the Paoli area eat more fruits and vegetables than adults in SEPA.

Children's consumption of fruits and vegetables is remarkably similar to adults'. Only 18.9% of children in the Paoli area ate five or more servings a day.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010; Pennsylvania Behavioral Risk Factor Surveillance Survey, 2007. Nutrition, exercise, chronic condition & obesity

Percentage of adults by BMI group in SEPA compared to nutrition, exercise and chronic condition



Adults in SEPA who are considered to have a normal weight tend to eat more fruits and vegetables, exercise more and have a lower percentage of a chronic condition than those who are overweight or obese.

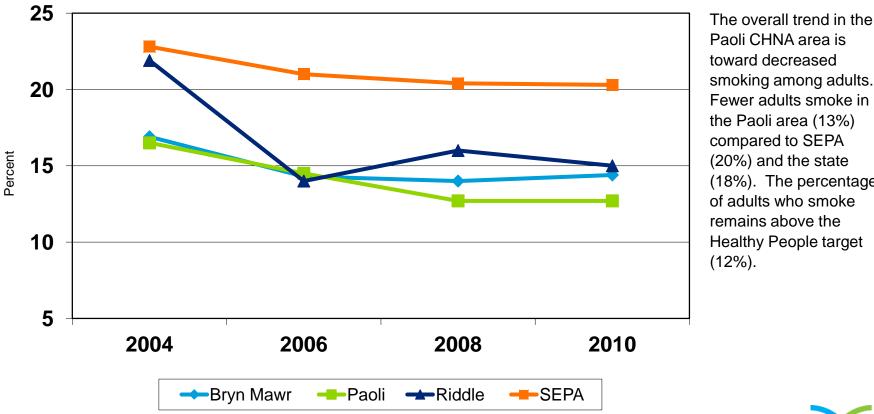


Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010; 2008 for chronic condition and obesity comparison.

Percent

Smoking

Healthy People 2020: 12% PA BRFSS 2010: 18%



Percent of adults who smoke (every day or some days)

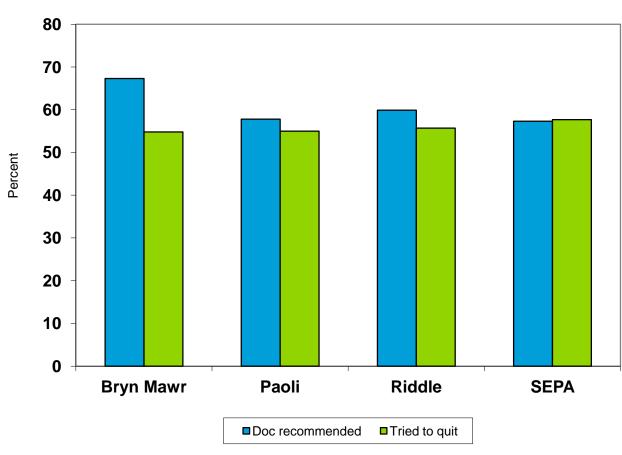
Paoli CHNA area is toward decreased smoking among adults. Fewer adults smoke in the Paoli area (13%) compared to SEPA (20%) and the state (18%). The percentage of adults who smoke remains above the Healthy People target (12%).



Sources: 2010 Pennsylvania Behavior Risk Factor Surveillance Survey. PHMC SEPA Household Health Survey, 2004, 2006, 2008, 2010.

Smoking cessation

Smokers who are advised to quit by their doctor and smokers who attempt to quit



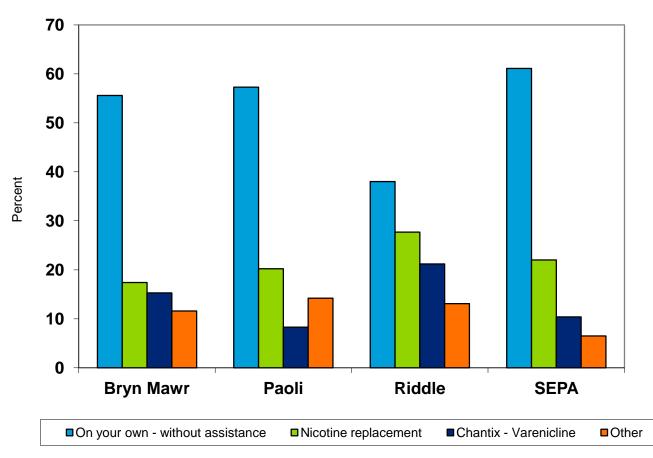
Healthy People 2020: 80% (Attempts to quit)

Over half of the smokers in the Paoli CHNA area have tried to quit. The percentage of smokers in the Paoli CHNA area who tried to quit is slightly less than in SEPA. An additional 25% of smokers should try to quit to meet the Healthy People 2020 target.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010 Tried to quit, 2008 for Doc recommended.

How tried to quit



Methods smokers used while trying to quit

Among former smokers in the Paoli CHNA area, most who have quit have done so on their own. The next highest percentage method used was "nicotine replacement."

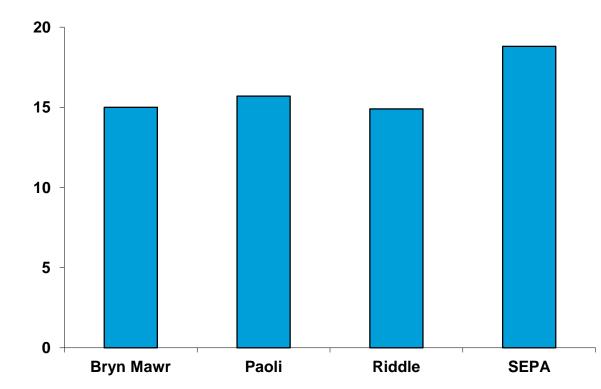
> Paoli Hospital Main Line Health Well ahead.

Note: Some of the "other" methods used include Internet counseling, "Quit net," self help books, a combination of methods, and other unspecified.

Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Sleep problems

Adults who report restless sleep



Healthy People 2020: 70.9% get healthy sleep

About one in six adults in the Paoli CHNA area report restless sleep which is less than reported for SEPA.

Poor quality sleep is increasingly connected to a host of serious health problems. Some studies have connected poor sleep to cancer, heart disease and obesity as well as to other hazards such as occupational and automobile accidents.

Sources: WebMD, "Sleep Habits: More Important Than You Think, Chronic Sleep Deprivation May Harm Health," 2006; R. Stein, Washington Post, "Scientists Finding Out What Losing Sleep Does to a Body," 2005; Data: PHMC Southeastern Pennsylvania Household Health Survey, 2010



Observations - preventive health

Cancer Screenings (Goals) -- Recent decisions by various medical bodies have created a wide variation in "best practices" for the timing of cancer screenings.

Among the major cancer screenings studied, mammography and colonoscopy are the two tests that are most underused although colon cancer screening has been increasing each survey period. The data show that the 50 to 59 age group is least likely to have been tested for colon cancer. The Paoli CHNA area has the highest percentage of colon cancer screenings. Women in the Paoli area are typical to other areas in their compliance for mammography screenings.

- **Obesity** -- Adult obesity continues to increase in the Paoli CHNA area. This increase is despite a population that tends to be more active than the SEPA and PA populations. Some increase in obesity is related to the growing older adult population in the area.
- **Smoking** -- The percentage of adults who smoke has been declining. However, there is a continuing need to encourage and support smokers in their cessation efforts.
- Sleep -- About one in six adults report sleep problems. Lack of sleep may manifest itself in health care issues or unintentional injuries.

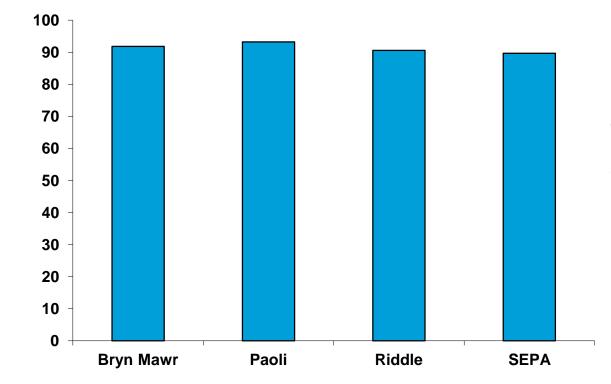


Community Analysis

Access to Care

Regular source of care

Healthy People 2020: 84.0%



Adults who have a regular source of care*

Over 93% of adults in the Paoli CHNA area have a "regular source of care". This is similar to adults in SEPA and it exceeds the Healthy People 2020 target.

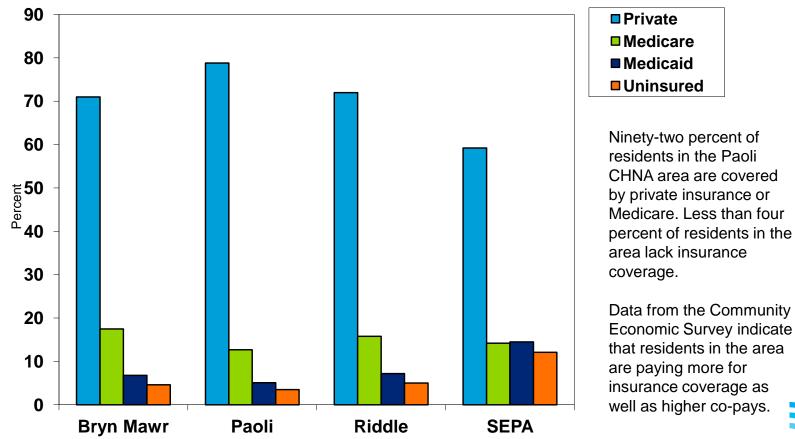


*Q: Is there one person or place you usually go to when you are sick or want advice about your health? Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Percent

Insurance status

Insurance coverage estimates (all ages) – 2011





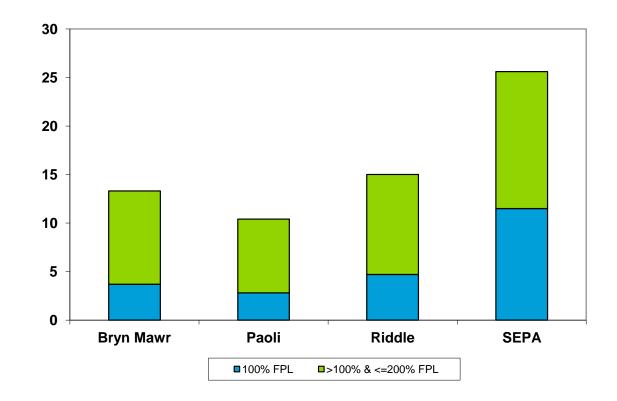
Sources: Truven Health; "My Healthcare Voice" online panel, March 2012.

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Percent

Poverty status

100 and 200 percent of the federal poverty level (FPL)



The Paoli CHNA areas has a relatively small proportion of households living at the federal poverty level (FPL). A larger proportion live in households earning just twice the FPL, however, the total percentage is low relative to the Bryn Mawr and Riddle areas and SEPA. The low FPL reflects the general affluence of the households in the area.

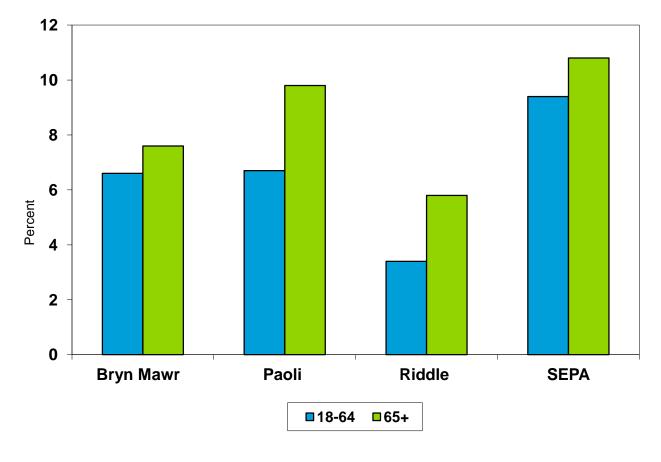
In 2010, a family of four earning \$22,050 would be living at the FPL.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010; U.S. Department of Health and Human Services.

No prescription coverage

Adults who lack insurance coverage for prescriptions



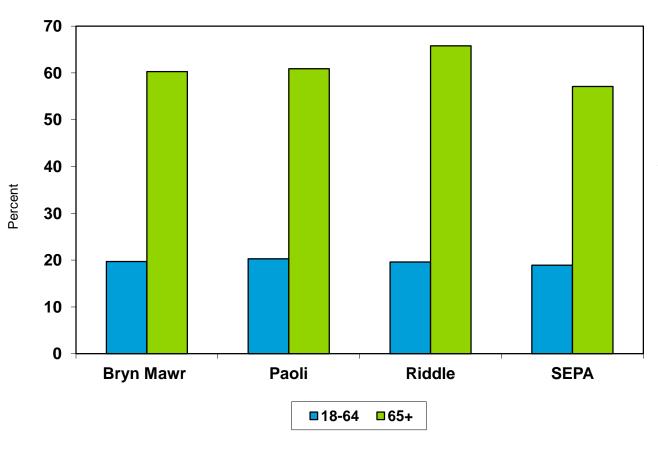
Fewer adults in the Paoli CHNA area lack prescription coverage compared to SEPA.

Older adults are more likely to lack coverage than younger adults.



No dental coverage

Adults who lack coverage for dental care



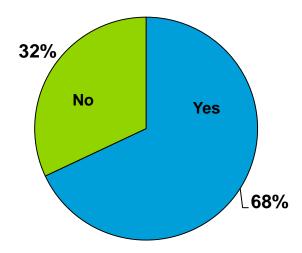
Older adults are also more likely to lack coverage for dental care in the Paoli CHNA area, slightly more than older adults in SEPA.

An Institute of Medicine report indicates lack of oral health can lead to increase risk of respiratory and heart disease as well as inappropriate use of emergency departments for dental care.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2008; Advancing Oral Health in America, Institute of Medicine, April 2011. Changes in insurance coverage - 2012

Adults in the MLH service area who report that their health insurance coverage changed during the past year



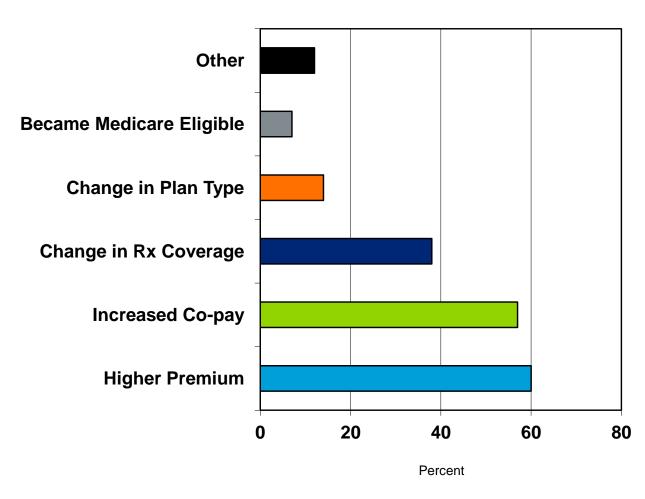
More than two-third of the respondents reported some kind of change to their health insurance benefits.



Source: "My Healthcare Voice" consumer panel, March 2012.

Insurance changes - 2012

Reasons for change in healthcare coverage in the MLH area



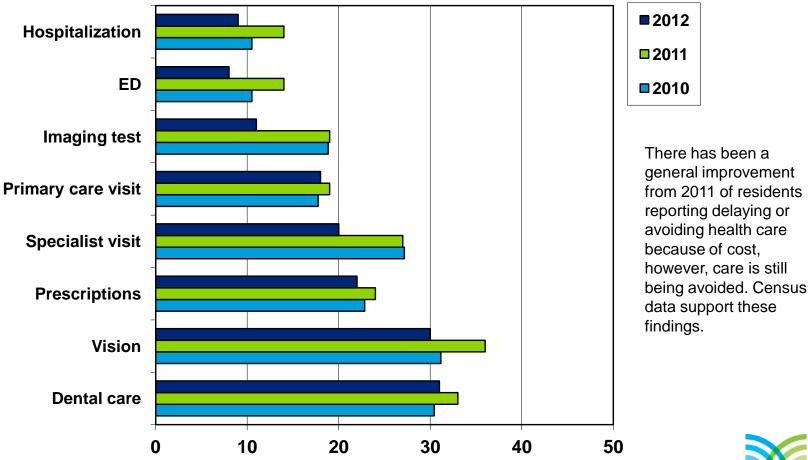
The main reason for loss of coverage is unemployment, but respondents also lost health insurance benefits due to employer discontinuation or a change in jobs.



Source: "My Healthcare Voice' consumer panel, March 2012.

Price sensitivity - 2012

Respondents saying "YES" to increased avoidance



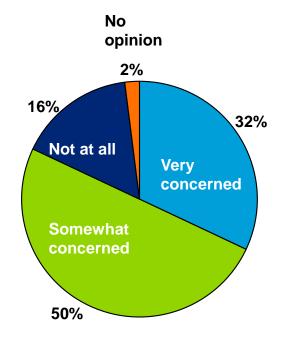


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Q. "In the past 12 months, have you or a member of your household <u>avoided or delayed</u> receiving any of the following healthcare services because of cost?" *Sources: U.S. Census Bureau, " Health status, Health insurance and medical service utilization: 2010, 2012; "My Healthcare Voice" consumer panel, 2010, 2011, March 2012.*

Concern about seeking care – time off work

Adults who would be concerned about seeking healthcare for a medical condition that would require short- or long-term disability leave in today's economic climate



Almost three in four adults are concerned about taking time off from work to receive medical care.



Source: "My Healthcare Voice" consumer panel, March 2012 Consumer Economic Survey

Chester County trauma care

An identified need in the Main Line Health 2009 Community Health Needs Assessment was the need for a Trauma Center in Chester County. Paoli Hospital became the Trauma Center for Chester County. An April 8, 2011 Philadelphia Business Journal article, "Paoli Trauma Center Beats Projections", provides an overview of the trauma program and how patients also remain in the county for follow-up rehabilitation care at Bryn Mawr Rehabilitation Hospital. Trauma patients from Chester County and surrounding areas, which makes up part of the Paoli CHNA geography, are now able to remain in Chester County for care.



Source: John George, Philadelphia Business Journal, "Paoli Trauma Center Beats Projections", April 8, 2011.

Observations – Access to care

- **Routine source of care --** Ninety-three percent of adults in the Paoli CHNA area have a regular source of healthcare.
- **Health Care Affordability** -- There are relatively few people in the Paoli CHNA area who have no health insurance or who are at or below the federal poverty level (FPL). The socio-demographic analysis of the CHNA area indicated that there may be pockets within the area where there are persons in need of subsidized health care.

Survey data indicate that more persons with health insurance continue to see changes in their polices, usually higher premium and co-pay costs. Almost 75% of surveyed consumers indicated they are very or somewhat concerned about scheduling time away from work to receive health care. This concern may indicate the need for non-traditional office hours from health care providers.

Consumers in the area are also indicating they are delaying or avoiding healthcare services because of cost. Although the Philadelphia western suburbs remain more affluent than SEPA, consumers are still delaying or avoiding care because of costs.

The CDC reports that unemployed adults have poorer health and access to health care.

Trauma Care -- Paoli Hospital is providing an identified need in Chester County; the identified need was to provide trauma care within the County.



Community Analysis

Children's Health

Birth-related indicators

Average natality and perinatal mortality rates (per 1,000)

Area	Birth rate: All women	Birth rate: teens	Low birth- weight	Prenatal care - % received	Infant mortality (1 year)	Neonatal mortality (27 days)
Bryn Mawr	20.36	1.32	66.55	80.29 %	2.33	1.49
Paoli	24.12	1.36	70.94	80.66 %	3.53	2.35
Riddle	18.75	2.85	71.11	78.20 %	3.25	2.21
SEPA	25.09	8.71	92.49	66.38	6.56	4.53

The Paoli CHNA area has one the highest birth rates in the western suburbs. These births are contributing to the increasing 0-17 population noted in the demographic analysis.

Teen pregnancy rates, as well as low birth weight babies, are relatively low when compared to SEPA.



The rates shown above are per thousand (unless otherwise noted) based on an average of four consecutive years (2003-2006). Source: Data provided by PHMC and based on information collected from official records from the Pennsylvania Department of Health.

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No health insurance – children

6 4 Percent 2 0 **Bryn Mawr** Paoli Riddle **SEPA**

Children without health insurance (age 0-17)

Similar to their parents, children in the Paoli CHNA area are likely to be insured.

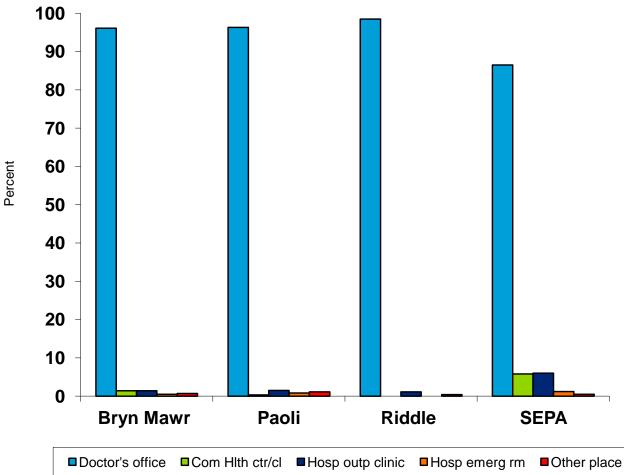
Although adults may be more susceptible to losing their health insurance due to current economic conditions, children will not because of the PA Children's Health Insurance Program (CHIP). CHIP covers the full spectrum of care from routine, preventive care, including dental and eye exams, to diagnostic imaging tests, mental health services and emergency care and inpatient stays.



Sources: Thomson Reuters, 2011; PA Children's Health Insurance Program – www.chipcoverspakids.com.

Children's use of care

Children's regular source of care



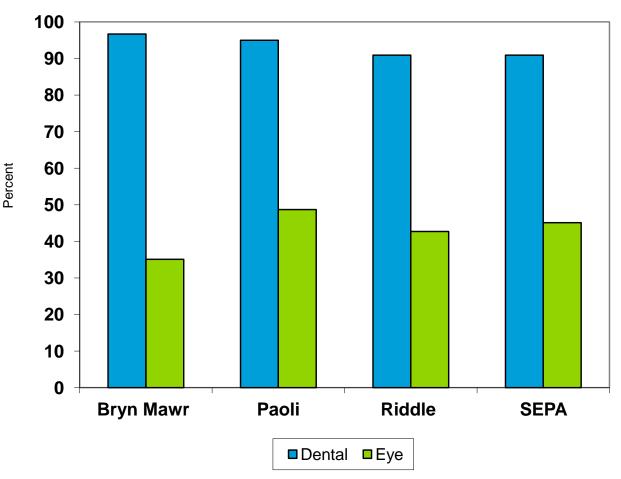
Almost all children (96%) in the Paoli CHNA area receive care in a physician's office.

> Paoli Hospital Main Line Health Well ahead.

Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Dental care and eye exams

Percentage of children who received exams in the past year (age 4+)



Almost all children in the Paoli CHNA area are receiving annual dental care; the percentage is better than the regional rate.

The percentage of children receiving eye exams is lower because not all children will be required to get an annual exam. Children above the age of four are generally recommended to get an eye exam every two years unless a problem is suspected by parents or detected during routine screenings. Almost 50% of children received an eye exam within the past year.

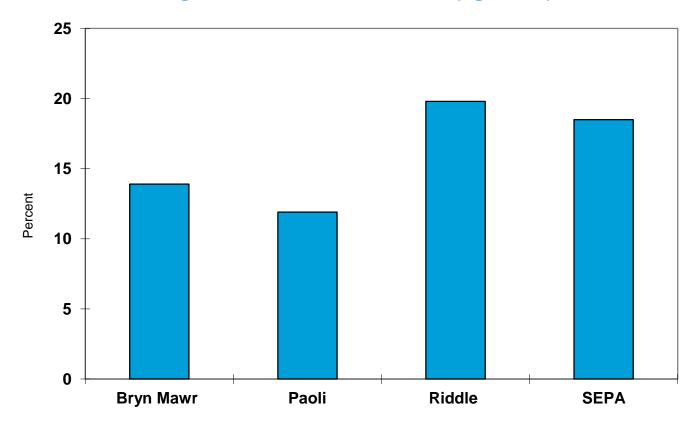


Questions asked about children four and older.

Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010 for Dental Care and 2008 for Eye Exam.

Asthma

Percentage of children with asthma (age 0-17)



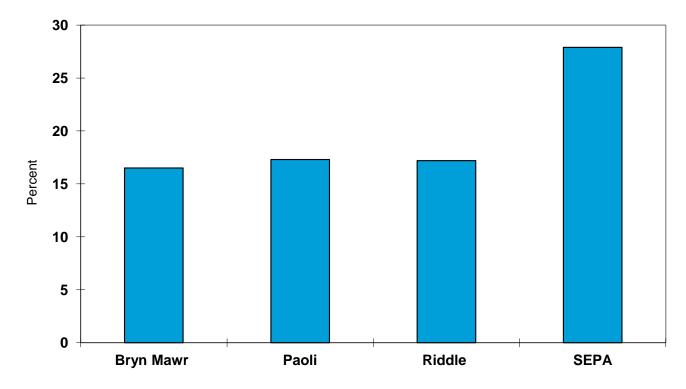
The percentage of children who have asthma in the Paoli CHNA area is lower than the regional rate and the comparable suburban areas.

Asthma is identified as a health care concern for school age children in the Paoli area by school nurses.



Asthma – trips to emergency department

Percentage of children with asthma who had to visit the emergency department for treatment in the past year (age 0-17)



The Paoli CHNA area has a lower proportion of asthmatic children receiving care in a hospital emergency department than in SEPA.

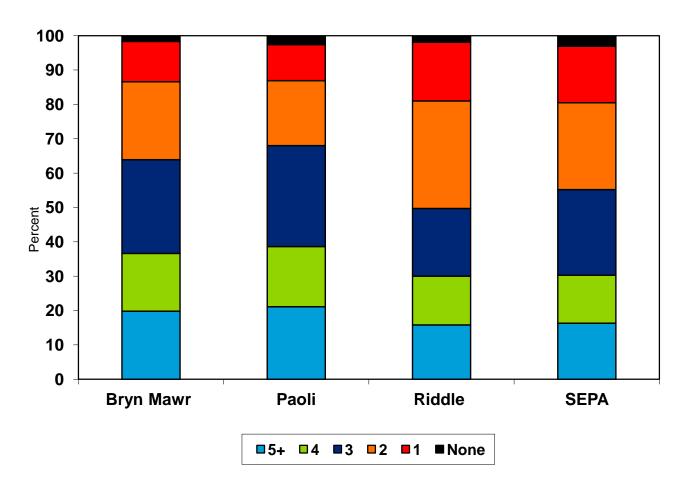


Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

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Nutritional goal

Servings of fruits and vegetables eaten on a daily basis

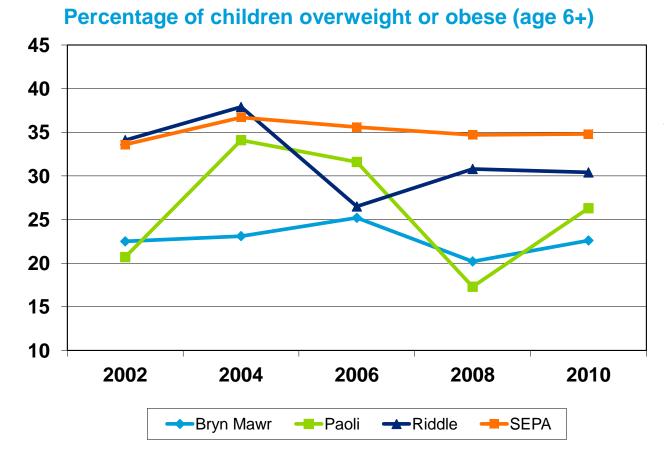


Children's consumption of fruits and vegetables is similar to adults'. Only 21% of children in the Paoli area ate five or more servings a day.



Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Childhood obesity



While the childhood obesity rate of 26.3% in the Paoli CHNA area falls below the SEPA rate, childhood obesity remains a problem.

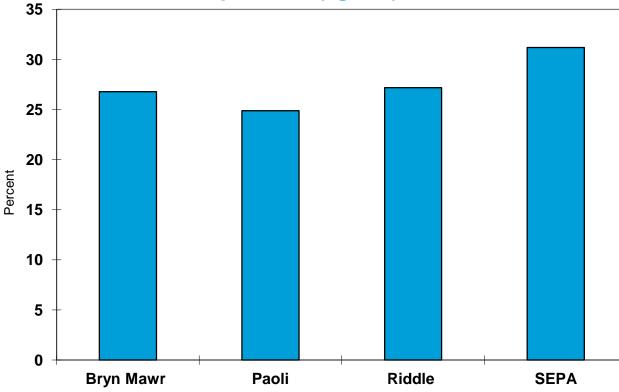
Obesity was identified by school nurses in the Paoli area as one of the top five concerns.

The chart above shows BMI-for-age percentiles. Children with a BMI in the 85th percentile are considered overweight and those at the 95th percentile are obese. Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2006, 2008, 2010.



Children who are less physically active

Percentage of children who are "physically active" four or fewer times per week (age 3+)



The ideal target for physical activity among children is one hour every day. About 25% of children in the Paoli CHNA area are "physically active" four or less times per week. This percentage is significantly better than SEPA and similar to the comparable suburban areas.



Question asked about children three years of age or older. Sources PHMC Southeastern Pennsylvania Household Health Survey, 2010; "Childhood Obesity," Main Line Link, Spring 2009.

Observations – children's health

- **Birth Rate --** The birth rate for the women in the Paoli CHNA area is higher than comparable suburban areas and comparable to the rate in SEPA. The birth rate in the area is expected to continue to be higher than suburban geographic areas to the east of Paoli.
- **Maternity and Neonatal Care --** The birth-related indicators in this report for the Paoli CHNA area show that mothers, in general, have better birth outcomes than in the larger region.
- **Healthy Weight --** While childhood obesity had been declining, there was an uptick in the percentage of obese children in 2010. This trend should be monitored. School nurses surveyed rate this as one of their top concerns.
- **Asthma --** Asthma is the most common chronic condition among children. It can also be serious, requiring ongoing medication administration a stated concern of school nurses surveyed, and it can result in trips to the emergency department.
- **Physical Activity --** Physical activity is important for maintaining good health. Physical activity burns calories and creates muscle mass which both help in maintaining body weight. The Paoli CHNA area is fortunate that a higher percent of children are active.

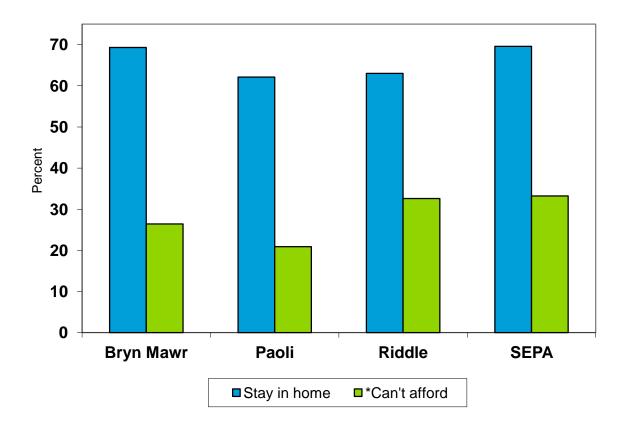


Community Analysis

Older Adults

Aging in place

Older adults (65+) who plan on staying in their current homes for 10+ years – and those who report difficulty affording housing costs



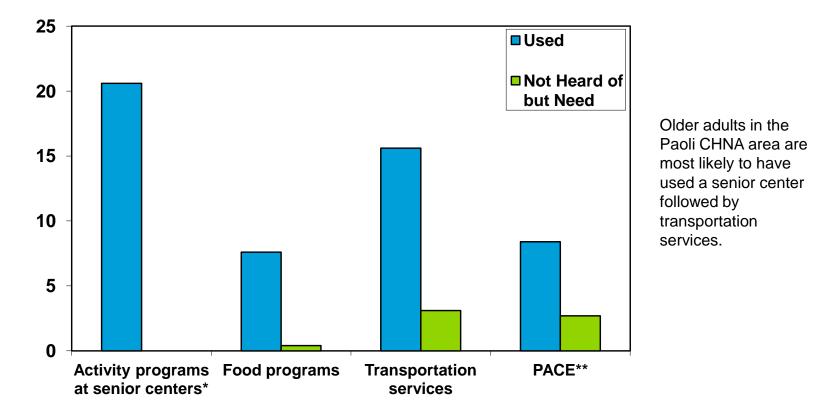
In a recent study, a majority of older adults reported that remaining in their own homes as long as possible is important to them. The same is true in the Paoli CHNA area.

This preference, combined with the graying of the baby boomer generation, represents a potential increase in the demand for home care services and fall prevention education.



Awareness and use of programs – Paoli

Older adults (65+) in the Paoli area who have used and are aware of various social service programs available



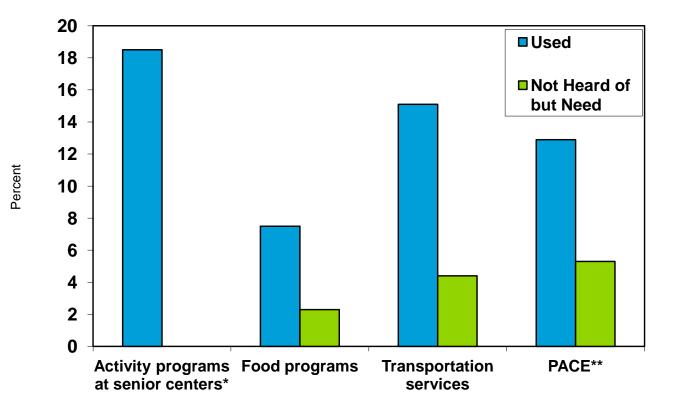
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*Did not ask if activity programs at senior centers were needed. **PACE: Prescription Drug Program for the Elderly. Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Percent

Awareness and use of programs – SEPA

Older adults (65+) in SEPA who have used and are aware of various social service programs available

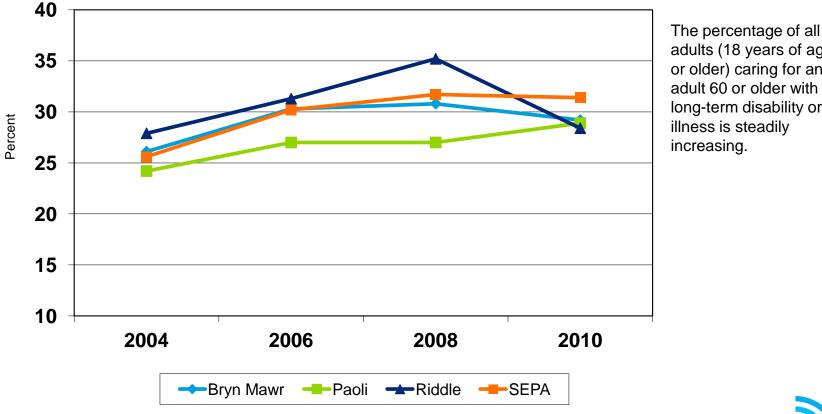


Paoli Hospital Main Line Health Well ahead.*

*Did not ask if activity programs at senior centers were needed. **PACE: Prescription Drug Program for the Elderly. Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Caregivers

Adults providing care for another adult with disabilities or illness



adults (18 years of age or older) caring for an adult 60 or older with a long-term disability or



Use of formal in-home care

Percentage of older adults (65+) who use formal care and how services were paid

		How services were paid				
Area	Uses formal care	Medicare	Medicaid	Private insurance	Out of pocket (Self/Family)	Agency
Bryn Mawr	7.8%	47.7	0.0	7.4	44.9	0.0
Paoli	9.1%	59.1	0.0	10.0	13.4	17.5
Riddle	7.7%	31.4	0.0	30.9	23.8	13.9
SEPA	7.7%	47.2	4.2	20.2	19.8	8.5

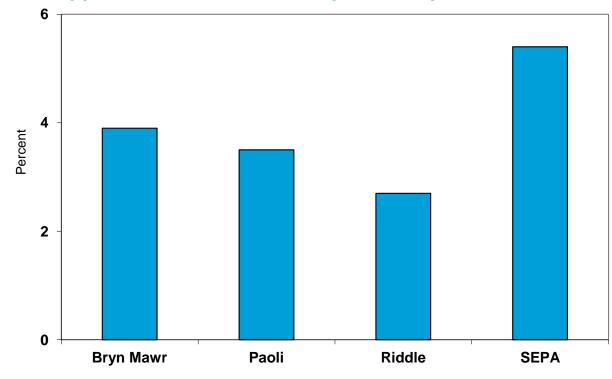
In the Paoli CHNA area, 9.1% of older adults use formal in-home care. The majority of this care is paid by Medicare.

Note: "Formal" care is defined as having someone provide services in your home, such as medical injections, changing bandages, help with grooming, cooking or shopping. The person could be someone from an agency or someone you hired. Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.



Transportation

Older adults (65+) who had to cancel a doctor's appointment due to a transportation problem



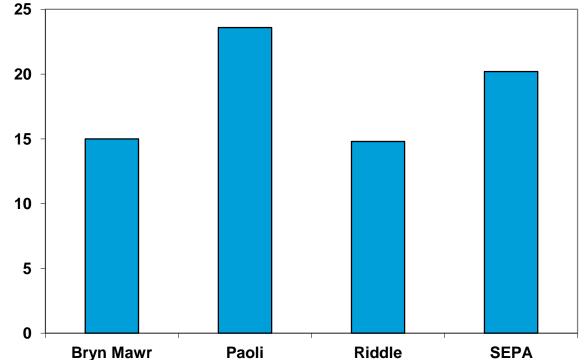
Transportation does not appear to be a major barrier to receiving health care services in the Paoli CHNA area. Public transportation services may or may not be helpful to frail elderly in successfully reaching a destination.



Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

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Falls



Older adults (65+) who have fallen within the past year

Falls can be a barrier to independent living. Approximately one in four older adults in the Paoli CHNA area has fallen in the past year.

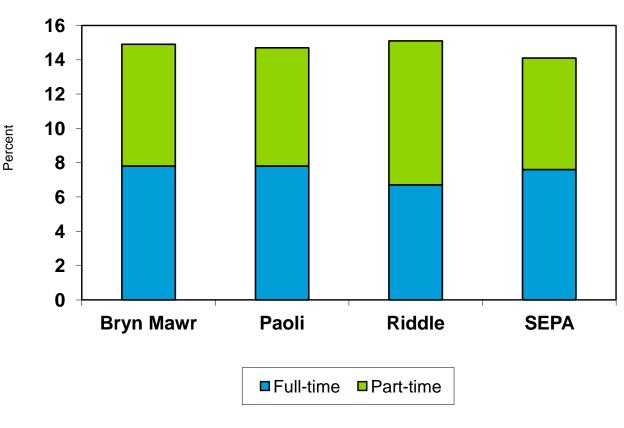
Falls can lead to visits to the emergency room or a hospital stay. As such, the higher percentage of falls may require additional monitoring.



Percent

Employment

Percentage of older adults (65+) who work full or part-time



The employment rate reveals the other types of lifestyle demands that may weigh on older adults. Working can be the result of being an active adult or may be out of necessity.

About 15% of older adults in the Paoli CHNA area are employed as of 2010. Data, specific to the CHNA area, is unavailable as to whether current economic conditions are impacting older adults who may need employment for household expenses.



Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Nursing homes and CCRCs in the PH CHNA area

Nursing Homes	Licensed Beds
Brandywine Hall	180
Golden Living Center	138
Harlee Manor	100
Main Line Nursing & Rehab Center	184
Manor Care Health Services	150
Pembroke Health and Rehabilitation	180
Pocopson Home	275
Tel Hai Retirement Community	139
Wayne Center	112
Barclay Friends	99
Beverly Healthcare – Golden Living	138
Devon Manor	131
St. Martha Manor	120

Continuing Care Retirement Communities (CCRCs)	Licensed Nursing Home Beds
Bellingham Retirement Community	64
Dunwoody Village	81
Heatherwood – Hickory House Nursing Home	110
Shannondell	60
Wellington Court at Hershey's Mill	36
White Horse Village	59
Simpson Meadows 0*	

*Beds located at Simpson House, Philadelphia, PA 19131

A Continuing Care Retirement Community (CCRC) is a residential community for adults that offers an independent living unit (an apartment or cottage) and access to a continuum of long-term care services (assisted living or nursing home care) that meet the residents' health and social needs as they change over time. These services are provided via a contract between the resident and the "Community."



84

Observations – older adults

Older adults -- Older adults are the fastest increasing age segment in the Paoli CHNA area.

- Aging in Place -- About 60% of older adults would prefer to stay in their current homes. Cost is an issue for 21% of older adults who would like to remain in their current homes. The percentage of older adults wishing to stay in their homes is lower than comparable areas and SEPA. It may not be surprising that the percentage of older adults seeking to stay in their home is lower in that older adults in the Paoli area have various options including being able to afford to move to one of several nice continuing care retirement communities in the region.
- **Caregiving** -- As the population ages, formal and informal caregiving will continue to be an important issue. There is a steady increase in the number of adults who report that they provide care for an older adult. As the healthcare needs of these older adults increase, they may transition to the need for formal home care services, assisted living, or skilled nursing home care. There may be a need for respite care, as caretakers need a break from their care-taking duties. Support for caregivers was identified as a issue by the Main Line Health physician medical staff.
- **Falls** -- Falls by older adults should be a concern that is worth monitoring. Falls can result in increasing visits to emergency rooms or an inpatient hospital stay.
- Nursing Homes & CCRCs -- There are 13 nursing homes and seven continuing care retirement communities (CCRCs) in the Paoli CHNA area. Coordination of care with these facilities is important to maintain an individual's health and prevent hospital re-admissions.

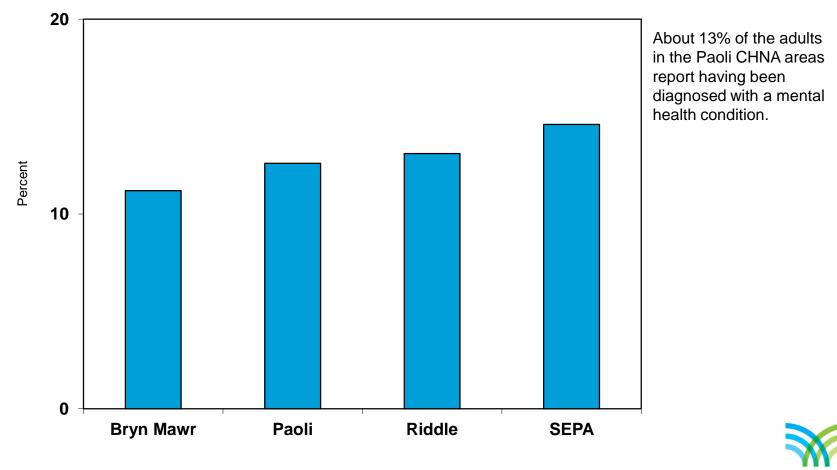


Community Analysis

Mental Health

Diagnosed mental health conditions



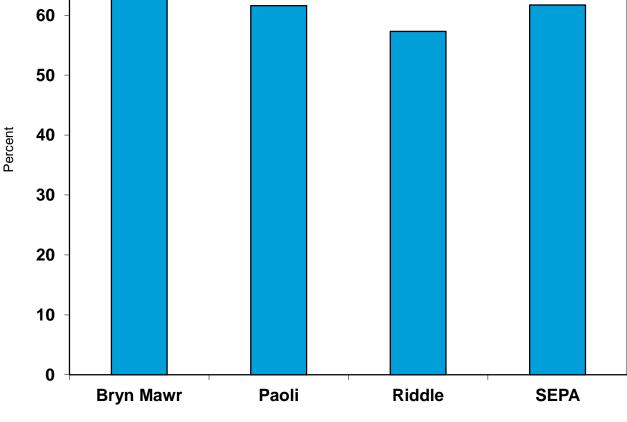


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Paoli Hospital

Receiving treatment for mental health conditions





When asked, "Are you currently taking medication or receiving any other type of treatment for your clinical depression or other mental health condition?" Six out of ten adults in the area said "yes."



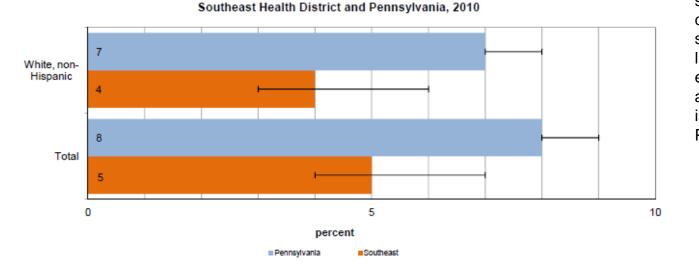
Source: PHMC Southeastern Pennsylvania Household Health Survey, 2010.

Mental health

Emotional Support and Life Satisfaction

- Southeast adults who rarely or never get the emotional support they need had a significantly lower percentage (5 percent, CI: 4-7) compared to Pennsylvania adults who rarely or never get the emotional support they need (8 percent, CI: 8-9).
- Southeast White, non-Hispanic adults who rarely or never get the emotional support they need had a significantly lower percentage (4 percent, CI: 3-6) compared to Pennsylvania White, non-Hispanic adults who rarely or never get the emotional support they need (7 percent, CI: 7-8).

Rarely or Never Get The Emotional Support They Need



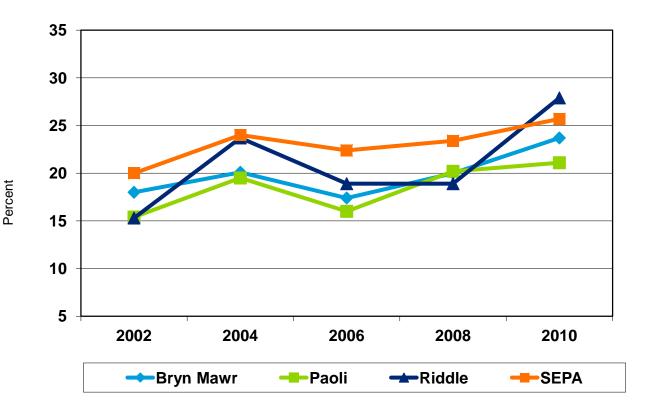
Data from the 2010 Pennsylvania Behavioral Risk Factor Surveillance System (BRFSS) survey indicates that adults in the suburban SEPA counties are significantly less likely to have emotional support and life satisfaction issues than adults in Pennsylvania.



Source: Pennsylvania Behavioral Risk Surveillance System survey, 2010.

Mental health: high stress

Adults with high stress levels on an ongoing basis



Stress levels have been climbing in the Paoli CHNA area over the last several years. The American Psychological Association (APA) indicates that job insecurity and money are two key stressors. Based on the "Stress in America" survey, the APA concludes that the "declining state of the nation's economy is taking a physical and emotional toll on people nationwide."

Stress was also identified as a top issue impacting the quality of health of area adults in an online study of local adults as well as the Main Line Health physician medical staff.

> Paoli Hospital Main Line Health Well ahead.

Note: High stress is defined as a rating of 8, 9, or 10 on a 10-point scale, where "10" indicates an extreme stress level during the past year.

Sources: PHMC Southeastern Pennsylvania Household Health Survey, 2002, 2004, 2006, 2008, 2010. The 2008 Stress in America research was conducted by Harris Interactive on behalf of the American Psychological Association in June and August of 2008 among 1791 adults aged 18+; "My Healthcare Voice" online panel November 2011.

Observations - mental health

Stress -- According to the Journal of the American Medical Association (JAMA), stress hormones have damaging effects if the heart is exposed to elevated levels of them for an extended period of time. Stress can cause increased oxygen demand on the body, spasm of the coronary (heart) blood vessels, and electrical instability in the heart's conduction system, among other ill effects. Stress is a mental and behavioral lifestyle component that contributes to disease in the population.

Over 20% of adults responded in the Southeastern Pennsylvania Household Health Survey to be under "high stress." Respondents to the "My Healthcare Voice" online panel survey identified stress as a having a major impact of the quality of health in the area.

Mental Health Conditions -- About 13% of adults in the Paoli CHNA area report having been diagnosed with depression or a mental health condition. Of those with a condition, 61% are taking a medication or another type of treatment to control the condition.

The Substance Abuse and Mental Health Administration reports* that 20% of adults in the U.S. experienced mental illness.



*Source: Substance Abuse and Mental Health Services Administration, News release, "National report finds one-in-five Americans experience a mental illness in the previous year", January 19, 2012.

Input from the Community

Perception of Health Care Related Issues

INPUT FROM THE COMMUNITY: PERCEPTION OF HEALTH CARE RELATED ISSUES

In addition to data sources utilized in the community analysis section, PH and MLH sought input from persons located in the community such as community organizations, public safety officers (fire, ambulance and police), school nurses, public officials, MLH physicians and individuals residing in the community that participated in an on-line survey. The following summarizes the community's perception of the top health care issues and the top issues impacting the quality of health. Issues identified via community input reinforces many of the data findings and observations in the preceding analysis.

Top Health Care Issues	Community	School Nurses	Public Officials	Community Leaders	Public Safety Officers	MLH Physicians
Senior Care			Х	Х	Х	Х
Obesity	X	Х	Х	Х		Х
Diabetes	X			Х		х
Nutrition		X				
Heart	Х			Х		х
Drug & Alcohol	Х	Х		Х	Х	Х
Mental/Behavioral Health	Х	Х	Х			Х
Cancer	X					х
Pediatric Asthma		Х				
Top Issues Impacting Quality of Health						
Health Care Affordability	x		Х	Х	Х	Х
Healthy Choices		Х		X		х
Stress / Busy Schedules	X					х
Access to Care		X		х		х
Unemployment	Х					Х
Patient Compliance						х
Smoking						Х

Certain health care issues and quality impacts (access to care) are generally specific to the Lankenau Medical Center CHNA which is reported elsewhere.

Paoli Hospital Community Health Needs Assessment

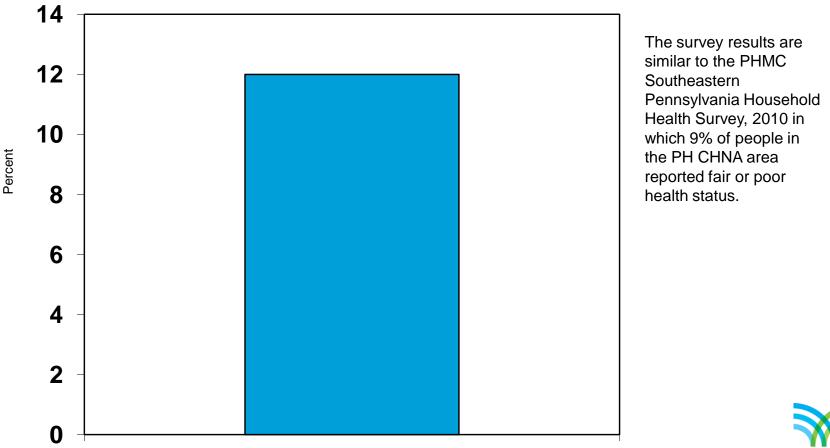
Community Surveys

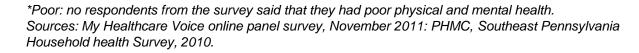
- Community Health
- School Nurse
- Elected and Appointed Officials
- Community Leaders
- Public Safety Officers Ambulance, Fire and Police
- Main Line Health Care Providers



Current status of physical and mental health

Percentage of respondents whose health status is fair and poor*



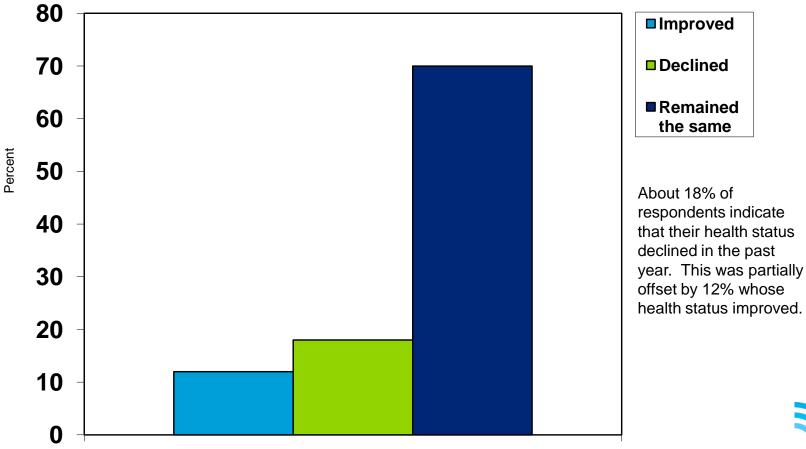




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Health status changed in the past year

Percentage of respondents whose health status changed in the past year



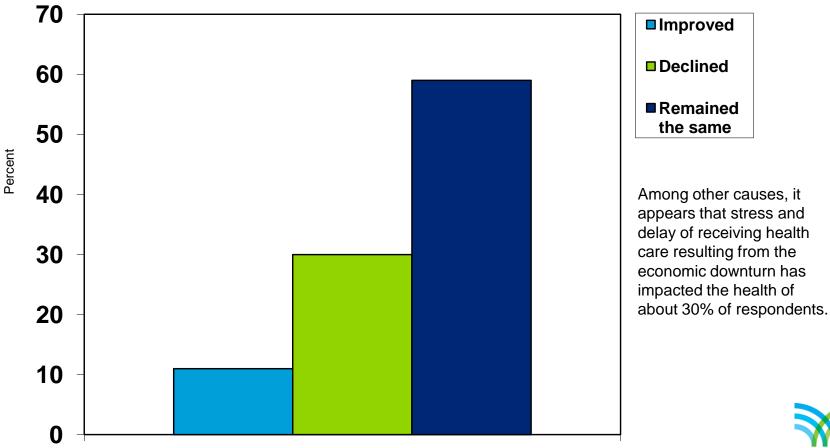


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Source: My Healthcare Voice online panel survey, November 2011.

Health status changed since 2008

Percentage of respondents whose health status changed since 2008





Source: My Healthcare Voice online panel survey, November 2011.

Top disease and health related problems

Top percentage of healthcare issues as identified by respondents throughout the CHNA service area

Health Condition	Total Percent
Obesity*	24.0%
Cancer	9.0%
Heart Disease	8.0%
Mental Health	8.0%
Diabetes	7.0%
Alcohol / Drug Abuse	7.0%

The top issues identified in the online community survey are similar to the issues identified in the data analysis.



*Obesity: includes both childhood and adult obesity Source: My Healthcare Voice online panel survey, November 2011.

Top issues impacting quality of health

Top percentage issues that affect the quality of health as identified by respondents throughout the CHNA service area

Health Condition	Total Percent
Health Care Affordability	18.0%
Too much stress	17.0%
Unemployment	14.0%
Busy Schedules	14.0%

The issues identified by the community as impacting the quality of health care are all noted elsewhere in the assessment. For instance, survey results from community leaders show their concern about health care affordability as well as the Community Economic Survey that indicated community residents are delaying health care decisions because of cost. Further, Main Line Health physicians identified stress and busy schedules as impacting the health of their patients and the community.



Source: My Healthcare Voice online panel survey, November 2011.

Most common ways that hospitals could improve the health of the community

Percentage of common ways hospitals could be improved

Health Condition	Total Percent
Affordability	15.0%
Health education	11.0%
Health fairs and screenings	9.0%

Health care affordability is the top response for how hospitals can improve the health of the community. Additionally, a previous Community Economic Survey revealed that persons are delaying health care treatment because of cost.

Residents of the area are also looking for hospitals to provide them with information to make informed health care decisions.



Source: My Healthcare Voice online panel survey, November 2011.

Paoli Hospital Community Health Needs Assessment

Community Surveys

- Community Health
- School Nurse
- Elected and Appointed Officials
- Community Leaders
- Public Safety Officers Ambulance, Fire and Police
- Main Line Health Care Providers



Major healthcare concerns for students

The top issues identified by school nurses

Bryn Mawr	Paoli	Riddle	OVERALL TOTAL*
Asthma	Asthma	Asthma	Asthma
Obesity Mental/ Behavioral Health		Obesity	Obesity
Mental/ Behavioral Health	Nutrition	Keeping Healthy/ Making Safe Choices	Mental/ Behavioral Health
Food Allergies	Obesity	Nutrition	Keeping Healthy/Safe Choices
Keeping Healthy/ Safe Choices	Keeping Healthy/ Safe Choices	Food Allergies	Nutrition
Drug and Alcohol	Drug and Alcohol	Mental/ Behavioral Health	
		Concussion and Head Injury	

The list of top health care concerns for children as identified by school health nurses remains unchanged from a prior survey completed in 2009. These issues all directly or indirectly impact the health of children in the PH CHNA area.



Paoli Hospital Community Health Needs Assessment

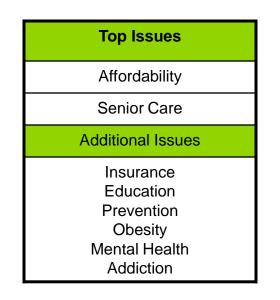
Community Surveys

- Community Health
- School Nurse
- Elected and Appointed Officials
- Community Leaders
- Public Safety Officers Ambulance, Fire and Police
- Main Line Health Care Providers



Top healthcare concerns for constituents

The top healthcare issues identified by local elected and appointed officials



The issues reported mirror those identified throughout the assessment and are most likely top-of-mind of the public official's constituents.



Source: Community Leaders Survey, August 2012.

Paoli Hospital Community Health Needs Assessment

Community Surveys

- Community Health
- School Nurse
- Elected and Appointed Officials
- Community Leaders
- Public Safety Officers Ambulance, Fire and Police
- Main Line Health Care Providers



Top healthcare concerns for local communities

The top healthcare issues identified by leaders of local community organizations

Top Issues
Senior Care
Affordability / Insurance
Healthy Living (wellness, exercise, fitness, stress management)
Obesity (adult & childhood)
Access to health services
Cardiac (Heart) care

The list of top health care concerns for local communities as identified by community leaders in the Main Line Health hospitals' CNHA areas reflect issues identified throughout the assessment.



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Source: Community Leaders Survey, August 2012.

Paoli Hospital Community Health Needs Assessment

Community Surveys

- Community Health
- School Nurse
- Elected and Appointed Officials
- Community Leaders
- Public Safety Officers Ambulance, Fire and Police
- Main Line Health Care Providers



Top healthcare concerns for constituents

The top health care issues identified by local public safety officers (ambulance, fire and police)

Top Issues
Having enhanced first responder & EMS services in the community
Affordability / Insurance
Alcohol or Drugs
Senior Care

Three of the top four health care concerns expressed by local public safety officers reflect issues identified throughout the assessment. The top issue identified is the concern of local public safety officers in having sufficient and well maintained first responder and EMS services in their communities.



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Source: Community Leaders Survey, August 2012.

Paoli Hospital Community Health Needs Assessment

Community Surveys

- Community Health
- School Nurse
- Elected and Appointed Officials
- Community Leaders
- Public Safety Officers Ambulance, Fire and Police
- Main Line Health Care Providers



The top issues impacting the quality of health of patients and the community

Bryn Mawr	Paoli	Riddle	OVERALL TOTAL*
Busy schedules, no time to make healthy choices; Stress	Patient compliance and motivation to reduce health risks	Busy schedules, not time to make healthy choices; Patient compliance & motivation	Busy schedules, no time to make healthy choices
Patient compliance & motivation to reduce health risks	Busy schedules, not time to make healthy choices; Patient compliance & motivation		Patient compliance & motivation
Affordability of medical / surgical health care	Stress		Stress
			Affordability of medical / surgical health care
			Availability of primary care; Underemployment or unemployment

MLH physicians noted what they thought were the top issues impacting the health of the community. Their responses generally reflect the issues found throughout the assessment. However. persons reporting in the Community Survey did not directly mention their own compliance to medical regiments or healthy lifestyles as impacting their health.



*Overall Total includes responses from the Lankenau Medical Center medical staff Source: MLH Health Care Providers Survey, September 2012.

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The top medical issues that have the greatest impact on the health of the community

Bryn Mawr	Paoli	Riddle	OVERALL TOTAL*
Diabetes Obesity	Obesity	Obesity	Obesity
Heart disease	Diabetes	Diabetes	Diabetes
Cancer	Heart disease	Heart Disease	Heart Disease
			Substance Abuse: Smoking
			Cancer
			Substance Abuse: Drugs & Alcohol

MLH physicians selected these as the top medical issues that have the greatest impact on the health of the community. They are also similar to those identified throughout the assessment.



*Overall Total includes responses from the Lankenau Medical Center medical staff Source: MLH Health Care Providers Survey, September 2012.

The top pediatric health issues that are most concerning

Bryn Mawr	Paoli	Riddle	OVERALL TOTAL*
Drug, tobacco, alcohol	Obesity	Drug, tobacco, alcohol	Drug, tobacco, alcohol
Obesity	Drug, tobacco, alcohol	Obesity	Obesity
			Poor dietary or exercise choices;
			Mental / behavior health

Drugs, tobacco and alcohol obesity are top pediatric health issues in the CHNA areas as identified by medical staff of the hospitals. These top issues are found throughout the assessment.



*Overall Total includes responses from the Lankenau Medical Center medical staff Source: MLH Health Care Providers Survey, September 2012.

The top senior health issues that are most concerning

Bryn Mawr	Paoli	Riddle	OVER ALL TOTAL*
Care giving support	Diabetes; Medication costs; Not prepared for end of life issues	Obesity	Caregiving support
Affordability of tests Chronic conditions Dementia Medication costs Medication management		Smoking	Smoking Dementia Chronic conditions Obesity

A variety of issues in the CHNA areas are identified as top issues among the hospitals. "Caregiving support" is the top overall senior health issue for all three hospitals.

Diabetes, medication costs and end-of-life issues are top concerns for physicians at Paoli hospital.



*Overall Total includes responses from the Lankenau Medical Center medical staff Source: MLH Health Care Providers Survey, September 2012.

COMPREHENSIVE REPORT APPENDIX



Data sources utilized to compile the Community Health Needs Assessment

•Community-based public health data (Community Health Data Base) provided by Public Health Management Corp (PHMC) including data from the Southeastern Pennsylvania Household Health Survey (2002 to 2010)

- One of largest, local health surveys in the country
- Assesses health needs of local population
- Provides "public health expertise"
- •Truven Health (formerly Thomson-Reuters prior to June 2012)
 - Population data with projections
 - Insurance estimates
- •Pennsylvania Department of Health
- •Select national and state comparative data
 - CDC: Behavioral Risk Factor Surveillance System (BRFSS) 2010
 - CDC: Healthy People Targets 2020



Comparative benchmarks utilized in the Community Health Needs Assessment

<u>United States</u>: Healthy People 2020 is a joint initiative managed by the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH) that provides target measures. Public health goals, established by the Healthy People 2020 initiative, are provided where similar indicators are available.

<u>Pennsylvania</u>: Some benchmarks are provided to the state population per the 2010 Behavioral Risk Factor Surveillance System (BRFSS), which is a part of a national health monitoring initiative supported by the CDC.

<u>Regional/SEPA</u>: Where state and national indicators are not available, a regional benchmark is provided based on the five counties included in the PHMC Southeastern Pennsylvania Household Health Survey (Bucks, Chester, Delaware, Montgomery and Philadelphia). Another useful benchmark is the other MLH System hospitals, as health needs vary based on the characteristics of each Hospital's community.



Data Availability and Data Gaps

Despite having access to numerous data resources, data specific to the mental health status and mental health needs of the population are significantly lacking for the zip code-based hospital CHNA areas. Available data reviewed included general statistics on adults diagnosed with depression or other mental health issues; adults receiving treatment (undefined) for mental health issues; and adults with stress. Mental health issues of prevention and treatment involve multi-dimensional societal and health issues that make determining need for services difficult to assess.

Sample sizes within the PHMC Community Health Data Base for certain racial/ethnic and religious sub-populations were too small to draw meaningful conclusions on certain indicators. Additional data sources and follow-up research are being used to further assess the health status of identified sub-populations.



Input utilized to compile the Community Health Needs Assessment

- Community Economic Survey
- Community Health Survey
- School Nurses Survey
- Elected and Appointed Officials Survey
- Community Leaders Survey
- Public Safety Officers Ambulance, Fire and Police Survey
- MLH Health Care Provider Survey



INPUT FROM THE COMMUNITY: ORGANIZATIONS PROVIDING INPUT VIA SURVEY OR INTERVIEW- COMMUNITY LEADERS*

Public Health Departments or Organizations

- Chester County Health Department
- Delaware County Intercommunity Health Coordination
- Montgomery County Health Department
- Montgomery County Aging and Adult Services

Organizations Serving Persons in Need

- ARCH (Area Residents Caring and Helping)
- Adult Care of Chester County
- Audubon YMCA
- Brandywine Valley YMCA, Jennersville Branch
- Bryn Mawr Partnership
- Bryn Mawr Presbyterian Church
- Cancer Support Community (formerly The Wellness Community of Phila)
- Caring People Alliance @WPCC
- Catholic Social Services
- Christ Lutheran Church
- Community Volunteers in Medicine

Organizations Serving Persons in Need (continued)

- Community YMCA of Eastern Delaware
- ElderNet of Lower Merion and Narberth
- Elwyn
- First Baptist Church of Malvern
- Golden Slipper Center for Seniors
- Great Valley Senior Center
- Health Promotion Council
- Kindred Hospital- Havertown
- Lower Merion Counseling Services
- Maternal and Child Health Consortium of Chester County
- Maternity Care Coalition
- New Courtland Elder Services
- New Horizons Senior Center
- Pennsylvania Home of the Sparrow
- Pennsylvania State Police
- Phoenixville Community Health Foundation
- Positive Aging in Lower Merion Senior Center



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Organizations Serving Persons in Need (continued)

- Pottstown Area Health and Wellness Foundation
- Project Outreach
- St Norbert Parish
- Surrey Services for Seniors
- The Church of the Good Samaritan
- The Clinic of Phoenixville
- United Way of Chester County
- Upper Main Line YMCA
- Upper Merion Senior Service
- Wayne Senior Center
- Women's Resource Center

Other Organizations Active in the Community

- Colonial Electric Supply
- Delaware County Library System
- Delaware County Chamber of Commerce
- Dunwoody Village
- Maris Grove
- Penn Liberty Bank
- The Conestoga Group
- TriCounty Area Chamber of Commerce



The public safety survey responses are from a wide geography and include community first responders that provide emergency services and community outreach

- Aston-Beechwood Fire Company
- Berwyn Fire Company
- Brandywine Hospital Medic 93
- Brookhaven Police
- Broomall Fire Company
- Bryn Mawr Fire Company
- Downingtown Police Dept
- East Brandywine Fire Company
- Easttown Township Police Department
- Garden City Fire Company
- Good Fellowship Ambulance
- Goshen Fire Company
- Honey Brook Fire Company EMS
- Limerick Township Police
- Ludwigs Corner Fire Company

- Malvern Fire Company
- Marple Township Ambulance Corps
- Media Fire Company
- Newtown Township Police Department
- Penn Wynne- Overbrook Hills Fire Company
- Radnor Fire Company
- Tredyffrin Township Police Department
- Upper Providence Township Dept of Fire & Emergency Services
- Upper Providence Township Police
- West Goshen Township Police Department
- West Whiteland Fire Company



INPUT FROM THE COMMUNITY: ORGANIZATIONS PROVIDING INPUT VIA SURVEY OR INTERVIEW– PUBLIC OFFICIALS*

The public officials survey responses came from a wide geography. Public officials serve the public's interest.

- Borough of West Chester
- County of Delaware
- East Caln Township
- Lower Merion Township
- Media Borough
- PA House of Representatives- District 188
- PA House of Representatives- District 157
- PA House of Representatives- District 160
- Spring City Borough
- Swathmore Borough



INPUT FROM THE COMMUNITY: ORGANIZATIONS PROVIDING INPUT VIA SURVEY OR INTERVIEW-SCHOOL NURSES*

The school nurse survey responses came from a wide geography and include schools that have attendance from children of all socio-economic backgrounds

- Aronimink Elementary School
- Arrowhead Elementary School
- Bayard Rustin High School
- Benjamin B. Comegys School
- Beverly Hills Middle School
- Bradford Heights Elementary School
- Brandywine-Wallace Elementary School
- Charles F. Patton Middle School
- Charles Kelly Elementary School
- Coebourn Elementary School
- Concord Elementary School
- Culbertson Elementary School
- Delaware County Christian School
- Devon Elementary School
- Downingtown Area High School East Campus Downingtown High School West
- Downingtown Middle School
- Drexel Hill Middle School
- Eagleville Elementary School
- East Goshen Elementary School

- East Vincent Elementary School
- Episcopal Academy
- Fern Hill Elementary School
- Friends Central Lower School
- Friends School Haverford
- Garnet Valley Elementary School
- Glenwood Elementary School
- Great Valley School District
- Henderson High School
- High School of the Future
- Highland Park Elementary
- Hill Top Preparatory School
- Hillcrest Elementary School
- Hillendale Elementary
- Hillside Elementary School
- Holy Child Academy
- Immaculate Heart of Mary
- Indian Lane Elementary School
- John Bartram High School
- John S Jenks School



*List includes respondents from the MLH Service Area

INPUT FROM THE COMMUNITY: ORGANIZATIONS PROVIDING INPUT VIA SURVEY OR INTERVIEW-SCHOOL NURSES*

The school nurse survey responses came from a wide geography and include schools that have attendance from children of all socio-economic backgrounds (cont'd)

- Lamberton School
- Limerick Elementary
- Lionville Elementary School
- Lionville Middle School
- Manoa Elementary School
- Marple Newtown High School
- McMichael Elementary School
- Mitchell Elementary School
- Morton Elementary School
- Nether Providence Elementary School
- Norristown High School
- Oaks Elementary School
- Paul Robeson High School for Human Services
- Paul V. Fly Elementary School
- Penncrest High School
- Radnor Elementary School
- Roxborough High School
- Schuylkill Elementary
- Shaw Anna H. Middle School
- Shawmont School

- Springfield High School
- St. Donato's School
- St. Francis de Sales School
- St. Francis of Assisi School
- St. Laurence School
- Stetson Middle School
- Stonehurst Hills Elementary School
- Sugartown Elementary School
- Upper Darby High School
- Upper Darby Kindergarten Center
- Upper Providence Elementary
- Uwchlan Hills Elementary School
- Valley Forge Military Academy
- West Bradford Elementary School
- West Chester East High School
- Westbrook Park Elementary School
- William Levering School
- Woodland Academy
- Woodlynde School
- Worchester Elementary School
- Worrall Elementary School



- <u>Bradley Zerr</u>: Zerr is the Community Health Services Director, Paoli Hospital. He has a Bachelor of Science degree in Health Education, Physical Education and Safety Education. He has served Paoli Hospital and the community for the past six years promoting/educating wellness and health services offered by Paoli Hospital medical staff and volunteers. Zerr is actively involved in outreach, offering screenings, seminars, health fairs and other health and nutrition programs to schools, churches, senior communities/centers, township/county organizations, corporations, civic associations, area non-profits and YMCAs. He also participates on the following community boards: Great Valley Senior Center, Main Line Ministerium, Activate Chester County, Paoli Business and Professional Association and Great Valley Foundation.
- <u>Berwood Yost</u>: Yost is Director of the Floyd Institute for Public Policy and also the Director of the Center for Opinion Research at Franklin and Marshall College where he also teaches courses in research methods and public health. He has substantial applied experience designing and implementing public opinion research using both qualitative and quantitative methods, and has conducted funded research on behalf of government, business, nonprofit organizations, public utilities, higher education and the media.



- Lynne Kotranski, Ph.D.: Kotranski is Managing Director for Research and Evaluation for the Public Health Management Corporation. She has over 25 years of experience conducting and managing diverse research, program evaluation and related technical assistance projects on the local, state and national level. The Research and Evaluation Group works with study design, quantitative and qualitative data collection and analysis, development of surveys and other instruments, conducting community and population needs assessments and working with individuals and organizations to address research and training needs. Kotranski and her staff provide assistance in identifying data needs, measure outcomes, and produce practical reports for program monitoring and planning.
- <u>Francine Axler</u>: Axler is Senior Research Associate for Public Health Management Corporation. She has been actively involved in the field of public health and health promotion, specifically in the collection and dissemination of health status, health behaviors, and utilization of health services data for residents of Southeastern Pennsylvania. Her focus is on teaching health providers how to utilize community level health data to develop needed, effective and targeted health promotion programs for vulnerable populations. She directs the PHMC Community Health Data Base, has a degree in sociology and a graduate degree in public health education.



There are a variety of local and county government agencies, community service organizations, non-profit public health organizations and advocacy groups that provide needed services to individuals and families in the community. PH has working relationships with many of these organizations and will continue to enhance its working relationship with these community resources to improve the health status of its community. Some of these resources include, but are not limited to:

- American Heart Association
- American Cancer Association
- Community Volunteers in Medicine
- Phoenixville Clinic
- Chester County Health Department
- Area YMCAs
- Trinity House
- Main Line Ministerium
- Chester County Department of Aging
- Chester County Highway Safety
- Surrey Services
- United Way of Southeastern Pennsylvania
- Crohn's & Colitis Foundation
- Chester County Economic Development Council
- Paoli Business & Professional Association
- Chester County Library System
- Great Valley Senior Center



MLH Hospitals serve populations in counties including, but not limited to: Chester, Delaware, Montgomery and Philadelphia. These hospitals provide services and additional resources for the community.

Chester County

- Brandywine Hospital
- Chester County Hospital
- Devereux Children's Health Center
- Jennersville Regional Hospital
- LifeCare Hospitals of Chester County
- Main Line Health Paoli Hospital
- Main Line Health Bryn Mawr Rehabilitation Hospital
- Phoenixville Hospital

Delaware County

- Crozer Chester Medical Center
- Delaware County Memorial Hospital
- Kindred Hospital Delaware County
- Kindred Hospital Havertown
- Mercy Fitzgerald Hospital
- Main Line Health Riddle Hospital
- Springfield Hospital
- Taylor Hospital

Montgomery County

- Abington Memorial Hospital
- Brooke Glen Behavioral Hospital
- Eagleville Hospital
- Holy Redeemer Hospital and Medical Center
- Horsham Clinic
- Lansdale Hospital
- Main Line Health Bryn Mawr Hospital
- Main Line Health Lankenau Medical Center
- Mercy Suburban Hospital
- Montgomery County MH / MR Emergency Service
- Montgomery Hospital Medical Center
- Physicians Care Surgical Hospital
- Pottstown Memorial Medical Center
- Valley Forge Medical Center and Hospital



MLH Hospitals serve populations in counties including, but not limited to: Chester, Delaware, Montgomery and Philadelphia. These hospitals provide services and are additional resources for the community.

Philadelphia County

- Albert Einstein Medical Center
- Aria Health
- Belmont Center for Comprehensive Treatment
- Chestnut Hill Hospital
- CTCA-Eastern Regional Medical Center
- Fairmount Behavioral Health System
- Friends Hospital
- Good Shepherd Penn Partners Specialty Hospital
- Hahnemann University Hospital
- Hospital of Fox Chase Cancer Center
- Hospital of the University of Pennsylvania
- Jeanes Hospital
- Kensington Hospital
- Kindred Hospital Philadelphia
- Kindred Hospital/South Philadelphia

Philadelphia County (continued)

- Kirkbride Center
- Magee Rehabilitation Hospital
- Mercy Philadelphia Hospital
- Methodist Hospital Moss Rehabilitation Hospital Nazareth Hospital
- Penn Presbyterian Medical Center
- Pennsylvania Hospital
- Roxborough Memorial Hospital
- Saint Joseph's Hospital Philadelphia
- Shriners Hospital for Children -Philadelphia
- St. Christopher's Hospital for Children
- Temple University Hospital
- The Children's Hospital of Philadelphia
- Thomas Jefferson University Hospital



The following health needs are important to the community, however they are not being addressed with specific implementation plans, as services to address these areas are already being provided throughout the PH and MLH System communities.

Cardiovascular Disease

PH currently provides services to address cardiovascular health in the community. Currently PH promotes and participates in community events focused on; identifying risk factors and preventing heart disease, promoting healthy nutrition, smoking cessation and screening programs. A new screening program being initiated is angio-screening for employers in the community. Additionally, other MLH Hospitals have identified cardiovascular disease as a priority and a MLH System-wide Work Group is being implemented to coordinate and share best practices across the health system for addressing this health need. PH will actively participate in the work group.

Cancer/Screenings and Prevention

PH currently provides services to address cancer in the community. Currently PH conducts prostate, skin and breast cancer screenings in the community. PH is also developing a lung nodule clinic to provide early screening for lung cancer. The PH Cancer Center is accredited by the American College of Surgeons as a Community Hospital Comprehensive Cancer Program and employs both a social worker and risk assessment counselor to assist with outreach and address the needs of the community.



<u>Arthritis</u>

Although arthritis was the most common chronic condition among adults in the PH CHNA area, the percentage of adults in the area with arthritis is lower than in SEPA. Regardless, PH currently addresses risk factors for arthritis by focusing on obesity and the care of the senior population. Additionally, PH conducts several community events/year on rheumatology related conditions.

Lung Health

PH currently provides services to address lung health in the community. Currently, PH follows CMS guidelines for pneumonia care and 96% of all inpatients now receive the core guidelines. As noted, a lung nodule clinic is being developed to provide early screening for lung cancer and the PH has the only Joint Commission certified pulmonary lab in the region that serves a wide community. Additionally, PH, as a member of the MLH System, is active in the promotion of smoking cessation.

Injury Prevention

As a result of the CHNA conducted at MLH in 2009, the need for a trauma center in Chester County was identified. In response to this need, PH opened a Tramua Center in 2011 to serve the community of the county. As part of this program, PH provides outreach education on injury prevention. Additionally, the BMRH provides safe driving programs throughout the PH community.

