Healthy Howard Health Plan: A Summary of Inaugural Members’ Demographics, Health Status and Goals in 2009

RESEARCH REPORT #1

Prepared for Healthy Howard, Inc.
by the Department of Health, Behavior and Society,
Johns Hopkins Bloomberg School of Public Health

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Healthy Howard, Inc. is a 501(c)(3) organization created to administer the Healthy Howard Health Plan. They provided funding to the Department of Health, Behavior and Society (HBS) at the Johns Hopkins Bloomberg School of Public Health (JHSPH) to conduct a formal evaluation of the Healthy Howard Health Plan.

This report was prepared by the evaluation team. Members of the evaluation team and affiliations are listed below. The evaluation plan for HHHP was reviewed by the JHSPH Institutional Review Board (IRB) and deemed not human subjects research.

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A copy of Research Report #1 is available for downloading from the Department of Health, Behavior and Society’s website at http://www.jhsph.edu/dept/hbs

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EXECUTIVE SUMMARY

The Healthy Howard Health Plan (HHHP) is a public-private health care program designed to connect uninsured residents of Howard County, Maryland, to an affordable and comprehensive network of health care services. To our knowledge, it is the first plan in the nation to couple health care services with compulsory health coaching.

Data from the 2008 American Community Survey indicate that between 4.8% and 7.8% of adults under the age of 65 are uninsured in Howard County (U.S. Census, 2008). Those estimates translate into between 11,800 and 19,300 county residents. With the turbulent economic times of the past three years, job losses and reductions in hours-worked will likely turn more people into “newly uninsured” each month. HHHP was designed to fill an important gap for thousands of working families who find themselves without affordable health care options. These are people who do not have access to an employer-sponsored health plan and cannot afford to purchase private family coverage, but make too much money to qualify for state or federal health insurance programs.

HHHP is the vision of the Howard County Executive and Health Officer and is part of a larger initiative to build a model public health community. The Plan is administered by a non-profit organization – Healthy Howard, Inc. Operating costs are supported by member fees, county funding and private foundation grants. In addition, strong partnerships with local providers have translated into in-kind support and an expanded network of services for HHHP members.

Research Report #1 - Overview

An evaluation team was assembled prior to HHHP’s implementation. In consultation with Healthy Howard, Inc. staff, several evaluation aims were developed that serve to guide the ongoing evaluation of the Plan. The formal evaluation is being conducted by researchers from the Johns Hopkins Bloomberg School of Public Health.

Due to the uniqueness of the Plan and in order to provide timely information to funders and community partners, the evaluation team will present findings in a series of Research Reports. These reports will provide results from analyses of different aspects of the program and are intended to inform assessments of program performance and to facilitate specific plan improvements.

Research Report #1 examines who joined HHHP during its first year of operation. An overview of members’ demographics comprises Part I.
Part II presents results from initial Health Risk Assessments, and Part III describes the frequency and types of goals identified in members’ Health Action Plans (HAP).

**Research Report #1 - Key Findings**

*Research Report #1* provides a detailed snapshot of the inaugural members in the Healthy Howard Health Plan. The information gained from this group of previously uninsured Howard County residents regarding living and working conditions, health status, health behaviors and priority health goals expands our understanding of what it means to be without health care coverage. Part IV provides a complete discussion of the report findings. A bulleted list of key findings appears below.

- **HHHP Members are Typical Howard County Residents, Based on Demographics**
  - Members reside in all parts of the county.
  - Enrollment by age, family size, marital status and ethnicity mirrors county demographics.
  - The largest percentage of members and county residents are White. Higher percentages of Blacks or African Americans and Asians are found in HHHP compared to the overall county population.
  - The Plan’s launch increased public awareness of health care options and identified already-eligible families for existing programs.

- **HHHP Members are Part of Working Families with History of Health Care Coverage**
  - Most members (84%) work or are part of working families. Eight in ten uninsured Americans are in working families (KFF, 2009).
  - The average member income in 2009 was 177% of the Federal Poverty Level (FPL). Sixty-seven percent members’ incomes are under 200% FPL. Two-thirds of uninsured Americans have incomes below 200% FPL (KFF, 2009).
  - Members reported loss of coverage from change in employment and cost of coverage as the two leading reasons for being uninsured.
  - Fifty-seven percent of members reported having health insurance at some point within the past five years.

- **HHHP Members are a Population at Risk**
  - Despite similar chronic disease prevalence rates between members and county and state populations, members’ report significantly higher rates of tobacco use, physical inactivity and poor diet.
  - Prior to joining the Plan, members reported experiencing greater unmet medical and dental needs and received fewer preventive services compared to self reports of Howard County or Maryland adults.

- **HHHP Members are Working to Improve Health Behaviors and Living/Working Conditions**
  - A unique aspect of HHHP is the compulsory health coaching. Each member works with a coach to develop a Health Action Plan (HAP) and set goals and action steps to work on over a six month period.
  - Goals identified from HAPs focused on one or more of these six categories -- smoking; exercise/physical activity; food/diet; weight management; manage health condition (e.g. diabetes); and social factors (e.g. education, employment, finances).
  - The most common HAP goal focused on exercise/physical activity (33% of members).
PART I: MEMBER DEMOGRAPHICS FROM 2009

HHHP utilizes a system called Health-e-Link to determine residents’ eligibility for the Plan. Health-e-Link is a web-based screener for health care programs. Howard County launched a Health-e-Link pilot in October 2008 and HHHP was included as one of the programs in the system build.\(^1\) Health-e-Link is the system of record for HHHP. Based on the questions asked by the system to determine eligibility, Health-e-Link generated demographic data reports. Analysis of these reports resulted in the following summary information about HHHP members. As part of the application process, each applicant gives consent for their information to be used for program and evaluation purposes.

A significant number of uninsured county residents were identified through the Plan’s initial outreach campaign (October to December 2008) and from ongoing outreach and enrollment efforts during the Plan’s first year of operation. Although interest in joining HHHP brought these individuals to the Health Department\(^2\) or Healthy Howard, Inc., many were found to be likely eligible for existing health care programs such as Medicaid for Families (MA for Families) or the Primary Adult Care Program (PAC). This has been termed the “welcome mat” effect (Arjun and Guyer, 2008). Several states observed increased enrollment of already-eligible uninsured children after expanding eligibility thresholds for children’s health insurance programs. Research on other states’ experiences suggests that media attention paid to expanded eligibility increases public awareness of health care options (Arjun and Guyer, 2008).

During a Health Department-led outreach and enrollment effort in October 2008 (enrollment assistance provided during nine afternoon/evening sessions, four hours per session), 716 households/families came to apply for health care. The families varied in size from households of one to multi-generational households. On average, at least two individuals in each household were uninsured. In several cases, both adults and children needed health care coverage. The majority of those who sought health care during the October sessions were found likely eligible for existing health care programs and referred to the appropriate program. For example, 399 individuals were found eligible and enrolled in the Kaiser Bridge Program.\(^3\)

According to data from Healthy Howard, Inc., 2841 people completed a screening form to apply for HHHP in 2009. Just over two percent of these individuals reported incomes over 300% FPL and were therefore ineligible for HHHP or state health care programs. Forty-five percent (1283) of those who completed the screening form were found likely eligible for one or more existing programs and a referral was subsequently made. A total of 1491 individuals were potentially eligible for HHHP based on their screening form responses. Of that number, 627 individuals were enrolled in 2009. The remaining 864 potentially eligible did not ultimately become HHHP members. Healthy Howard, Inc. reports three reasons why potentially eligible people did not enroll. The first and leading reason is that information (e.g. income, residency) provided on the full, completed application rendered the person ineligible. The second reason is that the applicant decided not to join HHHP because another health care option (e.g.

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\(^1\) Health-e-Link is the MD version of One-e-App. One-e-App is a web-based system that provides a one-stop approach to screening, application submission and enrollment for a range of public sector health and social service programs. Three states currently work with versions of One-e-App (California, Arizona and Indiana). Maryland is the first state on the east coast to engage with this system; Howard County is the pilot county.

\(^2\) The Howard County Health Department assisted in outreach and enrollment efforts during HHHP’s initial launch period – October to December 2008.

\(^3\) Kaiser Bridge offers eligible uninsured adults three years of 90% or 95% subsidized full Kaiser Permanente health insurance. Howard County is one of several MD counties participating in the Kaiser Bridge Program.
employer-sponsored health coverage) became available or a service was not offered by the Plan (e.g. applicant had a relationship with a doctor and did not want to work with HHHP’s primary care provider). The third reason is that the person did not submit a complete application and follow up attempts made by outreach staff were unsuccessful.

The focus of this report is active members. Between January 1, 2009 and December 31, 2009, there were 512 active HHHP members. Members become “active” or eligible to receive services at the beginning of each month.

**Member Age and Sex**

The average age of members in 2009 was 44 years. Twenty-six percent of members were under the age of 34. HHHP members are similar in age to the overall Howard County population (Table 1).

<table>
<thead>
<tr>
<th>Age Range</th>
<th>HHHP 2009 Members</th>
<th>% of Membership</th>
<th>Howard County Population</th>
<th>% of County Population Ages 20-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 24 years</td>
<td>46</td>
<td>9.0</td>
<td>16,898</td>
<td>9.8</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>91</td>
<td>17.8</td>
<td>32,295</td>
<td>18.7</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>121</td>
<td>23.6</td>
<td>43,381</td>
<td>25.1</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>136</td>
<td>26.6</td>
<td>47,285</td>
<td>27.3</td>
</tr>
<tr>
<td>55 to 59 years</td>
<td>62</td>
<td>12.1</td>
<td>18,491</td>
<td>10.7</td>
</tr>
<tr>
<td>60 to 64 years</td>
<td>56</td>
<td>10.9</td>
<td>14,720</td>
<td>8.5</td>
</tr>
<tr>
<td>Total</td>
<td>512</td>
<td>100.0</td>
<td>173,070</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*2008 population estimates. (U.S. Census Bureau, 2010a)*

The majority of members were women. The 2009 active membership included 298 women (58.2%) and 214 (41.8%) men. There are slightly more women than men in Howard County (Table 2).
### Table 2: Sex of HHHP Members Compared to County Population, By Age

<table>
<thead>
<tr>
<th>Age Range</th>
<th>HHHP Men (% of Male Members)</th>
<th>Male County Residents b (% of Males Ages 20-64)</th>
<th>HHHP Women (% of Female Members)</th>
<th>Female County Residents b (% of Females Ages 20-64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 24 years</td>
<td>16 (7.5%)</td>
<td>8,392 (9.9%)</td>
<td>30 (10.1%)</td>
<td>8,506 (9.6%)</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>42 (19.6%)</td>
<td>16,028 (19.0%)</td>
<td>49 (16.4%)</td>
<td>16,267 (18.4%)</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>50 (23.6%)</td>
<td>20,978 (24.8%)</td>
<td>71 (23.8%)</td>
<td>22,403 (25.3%)</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>56 (26.1%)</td>
<td>22,861 (27.1%)</td>
<td>80 (26.8%)</td>
<td>24,424 (27.6%)</td>
</tr>
<tr>
<td>55 to 59 years</td>
<td>26 (12.1%)</td>
<td>9,009 (10.7%)</td>
<td>36 (12.1%)</td>
<td>9,482 (10.7%)</td>
</tr>
<tr>
<td>60 to 64 years</td>
<td>24 (11.2%)</td>
<td>7,227 (8.5%)</td>
<td>32 (10.7%)</td>
<td>7,493 (8.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>214 (100.0%)</td>
<td>84,495 (100.0%)</td>
<td>298 (100.0%)</td>
<td>88,575 (100.0%)</td>
</tr>
</tbody>
</table>

b 2008 population estimates. (U.S. Census Bureau, 2010a)

### Member Race and Ethnicity

Health-e-Link collects information on race and ethnicity. For race, applicants select from a menu of options (White, Black or African American, Asian, Pacific Islander/Native Hawaiian, Native American Indian). Applicants are then requested to indicate whether they are Hispanic/Latino or not Hispanic/Latino. These race and ethnicity categories are used by the U.S. Census and appear as standard categories on the Maryland Medicaid application. Both questions are optional. The applicant can select “Decline to State” instead of identifying a race. If an applicant does not respond to the ethnicity question, the system records a default response of “Not Hispanic/Latino.” This is the same default response used when processing Medicaid applications.

Of the 512 HHHP members, 59 (11.5%) declined to state a race on the application. Table 3 provides the race and ethnicity breakdown for HHHP in 2009.
Table 3: HHHP Members by Race and Ethnicity

<table>
<thead>
<tr>
<th>Race</th>
<th>HHHP Members</th>
<th>Ethnicity</th>
<th>HHHP Members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(% of Membership)</td>
<td></td>
<td>(% of Membership)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>121 (23.7%)</td>
<td>Non-Hispanic</td>
<td>489 (95.5%)</td>
</tr>
<tr>
<td>White</td>
<td>178 (34.8%)</td>
<td>Hispanic</td>
<td>23 (4.5%)</td>
</tr>
<tr>
<td>Asian</td>
<td>151 (29.5%)</td>
<td>Total</td>
<td>512 (100%)</td>
</tr>
<tr>
<td>Pacific Islander/</td>
<td>2 (0.4%)</td>
<td>Total</td>
<td>512 (100%)</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American Indian</td>
<td>1 (0.2%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decline to state</td>
<td>59 (11.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>512 (100%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Just as with age, the ethnicity of HHHP members is similar to that of the overall county population. Five percent of Howard Countians are Hispanic or Latino (U.S. Census Bureau, 2010a). The racial composition of HHHP members, compared to county residents, is different. Whites account for more than 34% of HHHP members. The majority of the county population – 70% across all ages – is white. Asian is the second most common race in the Plan, representing 29% of members. Close to 24% of members reported being Black or African American. According to U.S. Census data, 12% of the county population is Asian and 18% is Black or African American (U.S. Census Bureau, 2010a).

Family Size and Marital Status

There are an estimated 99,105 households in the county (U.S. Census Bureau, 2010b). Close to 27% of these are “non family households” indicating a person who lives alone. The county’s average household size is 2.7 and the average family size is 3.2 (U.S. Census Bureau, 2010b). Health-e-Link asked each applicant to list his or her family size. In addition, applicants selected marital status from the following options – Married, Never Married, Legally Separated, Divorced, Widowed, or Certified Domestic Partner. With the exception of the last option, the marital status categories are similar to those used by the U.S. Census. HHHP rules allow members to join with a spouse or certified domestic partner, therefore the “Certified Domestic Partner” option was added as a category. For the purposes of this analysis, the “Married” and “Certified Domestic Partner” categories were combined to reflect one “Married” category.

The majority of 2009 HHHP members reported a family size of two or fewer people (Figure 1). Just over half of members are married and more than 31% have never been married (Figure 2).
Figure 1: HHHP Family Size

- 1 person (39.4%)
- 2 people (27.7%)
- 3 people (14.1%)
- 4+ people (18.8%)

Figure 2: HHHP Marital Status

- Married (51.2%)
- Never Married (31.2%)
- Widowed (1.8%)
- Divorced (3.1%)
- Legally Separated (12.7%)
**County Location**

One of the eligibility requirements for HHHP is Howard County residency. Zip code information was extracted from Health-e-Link in order to better understand the geographic distribution of members across the county. There are 23 zip codes in Howard County (MD Department of Planning, 2008). Figure 3 shows the number of members by zip code.

![Figure 3: HHHP Members by Zip Code](image)

Two zip codes – 21045 and 21044 – were home to 45% of the total 2009 member population. Both of these zip codes are part of the city of Columbia. Five zip codes (21045, 21044, 21043, 21075 and 20723) claimed more than 40 members each. While the county has a large geographic footprint (approximately 251 square miles), the eastern parts of the county tend to be more densely populated than the western parts.

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4 Certain maps include 20701 (Annapolis Junction) and 20833 (Brookeville) as a Howard County zip code. According to Howard County’s Dept. of Planning and Zoning, a slice of 20701 does fall within county lines but it is zoned for commercial not residential use and 20833 is in Montgomery, not Howard County (personal communication, HCDPZ, 3/10/2010).
Employment and Income

Health-e-Link includes a series of questions related to income and employment (e.g. hours worked, rate of pay, frequency of pay, type of employment, type of income). Depending on the response, the system subtracts a set of deductions based on Maryland Medicaid rules to determine whether the applicant’s income falls within the range for existing state programs (MA for Families or PAC) or meets the HHHP income requirements. Applicants are also required to submit proof of income such as federal tax returns and pay stubs.

One of the questions is “Do you work more than 100 hours per month?” The answer identifies an individual’s monthly level of employment. It also factors in the determination of monthly income and appropriate deductions. In 2009, 72% of HHHP members or 369 people reported working less than 100 hours per month.

Health-e-Link calculates the Federal Poverty Level (FPL) for each applicant. In order to be eligible for HHHP, an applicant’s yearly income cannot exceed 300% FPL. Based on the 2009 Federal Poverty Guidelines, 300% FPL is $32,490 for a family of one, $43,710 for a family of two, and $66,150 for a family of four (2009 Federal Poverty Guidelines, 2009). A report of FPLs for the 2009 HHHP member population was generated from the system for analysis. The median FPL for members in 2009 was 177%. In terms of annual income, that is approximately $19,000 a year for a family of one, $25,789 for a family of two, and $39,000 for a family of four. The majority of members’ incomes (67%) were under 200% FPL. Figure 4 shows the overall FPL distribution for the member population.

**Figure 4: HHHP Members by Estimated Percent of Federal Poverty Level (FPL)**

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5 At the time the report was generated, a system error prevented the collection of FPL calculations for 25 members.
There are similarities between the HHHP member population and what is known in general about the uninsured. An estimated two-thirds of the uninsured in the U.S. have incomes below 200% FPL (KFF, 2009). Moderate income families, defined as those with incomes between 200% and 399% FPL make up 23% of the nation’s uninsured (KFF, 2009).

In Maryland, the income limit for MA for Families is 116% FPL. The income limit for PAC, the state’s Medicaid waiver program for childless adults, is also 116% FPL. Income, however, is not the only factor in determining eligibility for these plans. There are age and length of residency requirements as well as restrictions regarding dependent claims. As a result, applicants who were income eligible for state assistance programs but determined ineligible based on other requirements were eligible to enroll in HHHP (assuming they met all other HHHP eligibility criteria).

Available Health-e-Link data make it possible to gain an understanding for HHHP members’ type of income. Health-e-Link asks the applicant to provide a dollar amount for income and identify the source of income. If the applicant has more than one job or multiple income sources, Health-e-Link records each entry. The Health-e-Link categories for income type mirror the income categories used for processing Medicaid applications.

HHHP members’ reported income sources are listed in Table 4. Seventy-nine members selected “None” for income type. Several of these members were either students or adult children residing with parents. Forty-one members listed more than one source of income.

<table>
<thead>
<tr>
<th>Income Type/Source</th>
<th># of HHHP Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>63</td>
</tr>
<tr>
<td>Earnings from job</td>
<td>293</td>
</tr>
<tr>
<td>Self-employment</td>
<td>56</td>
</tr>
<tr>
<td>Disability/ Retirement, Survivors, Disability Insurance (RSDI) Payments</td>
<td>26</td>
</tr>
<tr>
<td>Other [Alimony, Workers Comp, Rental Income, Interest Income, Grants/Scholarships, General Assistance (e.g. Money from Family/Friends)]</td>
<td>38</td>
</tr>
<tr>
<td>None</td>
<td>79</td>
</tr>
</tbody>
</table>

Members could list more than one source of income. Therefore the total does not equal 512. A total of 555 sources of income were reported from income information provided by 512 members.

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Age requirements – Families with children under 21 for MA for Families, Adults ages 19-64 for PAC. Residency requirements – must be in the country a minimum of five years (Md. Regs. Code tit. 10 §. 09.24.05). The “5 year rule” recently changed with SCHIP re-authorization and no longer applies for MA for Families. Adult children claimed as dependents on parents’ tax returns are ineligible for PAC (personal communication, MDDHMH - Division of Eligibility Waiver Services, 11/21/2008).
The income snapshot of HHHP members is a sharp contrast to the county’s overall affluence. Howard County’s median household income is $101,710.\(^7\) The median family income is slightly higher at $116,842, while the median income for non-family households is $62,866 (U.S. Census Bureau, 2010a).

Howard County, like the rest of the nation, has seen a rise in unemployment in the past two to three years. The rate increased from 3.8% in December 2008 to 5.1% in December 2009. Even with this change, Howard County’s unemployment remains lower than the state rate (7.5%, December 2009) and those of other Maryland jurisdictions (U.S. Bureau of Labor Statistics, 2009). In terms of the impact unemployment has on access to care, each one percent rise in the nation’s unemployment rate results in an estimated 1.1 million more uninsured Americans (Holohan and Garrett, 2009).

\(^7\) Income is in 2008 inflation-adjusted dollars.
PART II: FINDINGS FROM 2009 MEMBERS’ HEALTH RISK ASSESSMENTS

A health risk assessment (HRA) is a screening tool used to obtain basic health information and identify risk factors in individuals (Anderson and Stufacker, 1996). HRAs are increasingly used by health plans as well as in comprehensive worksite wellness initiatives to assess population needs, identify at-risk groups and determine appropriate health promotion interventions. There are a variety of HRA vendors and assessments vary in format, length and types of questions included.

All HHHP members are asked to complete an HRA. During the initial five months of operation, this assessment was administered during the member’s first primary care visit. From month six to the present, HRAs are administered when the individual attends a mandatory orientation session. At orientation, prospective members learn about HHHP, sign the member agreement and make the first month’s payment. By signing the member agreement, each HHHP member provides broad consent to allow de-identified information to be used for program improvement as well as any subsequent evaluations of the program.

The HRA administered to HHHP members is a product of Wellsource, Inc. The “Concise Assessment Plus/Personal Wellness Profile” is used by the Plan’s third-party administrator – Johns Hopkins HealthCare LLC – and was therefore selected out of convenience. It is a 39 item, self-administered, paper and pencil questionnaire. Three additional questions related to previous health care experience were added to the HRA used by HHHP.

For the purposes of this report, answers to a subset of HRA questions were selected for analysis. These particular questions were chosen based on their fit with the State of the USA’s 20 leading health indicators (IOM, 2009a). Responses to these questions were extracted from the HRAs of 408 active HHHP members from calendar year 2009.8 Part II presents findings from the HRA analysis relating to members’ prior health coverage, general health status, prevalence of chronic disease, health-risk behaviors and unmet health needs.

Prior Health Coverage

Approximately 21% of American adults under the age of 65 reported being uninsured within the past year. Of those, the majority said they were without health coverage for more than a year (NCHS, 2010). Through the HRA, HHHP members indicated the length of time since they last had health coverage. This was one of the three additional questions added to the questionnaire for HHHP members. Table 5 lists members’ responses. Twenty-three percent of members who completed an HRA did not answer this question.

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8 Although there were 512 “active” HHHP members in calendar year 2009, 408 completed HRAs were available at the time of the analysis. Follow up attempts are made by the Plan to obtain missing HRAs. Health coaches are instructed to ask members who did not complete the HRA to do so during the initial coach meeting. The reasons for missing HRAs include the following: 1) member dis-enrolled prior to first doctor’s visit during HRA administration at primary care provider office; 2) member did not complete at doctor’s visit or orientation and dis-enrolled prior to initial coach meeting; 3) member did not complete during orientation and initial health coach meeting has not yet occurred; 4) health coach did not administer during initial meeting; and 5) administrative error resulted in loss of completed HRA.
Table 5: Before HHHP - Members’ Reported Time Since Last Insured

<table>
<thead>
<tr>
<th>Time Since Last Had Health Coverage</th>
<th># HHHP Members (% of Membership)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the past 1 yr</td>
<td>99 (24.3)</td>
</tr>
<tr>
<td>Within the past 2 yrs</td>
<td>70 (17.2)</td>
</tr>
<tr>
<td>Within the past 5 yrs</td>
<td>64 (15.7)</td>
</tr>
<tr>
<td>5 or more yrs</td>
<td>42 (10.3)</td>
</tr>
<tr>
<td>Never had health coverage</td>
<td>39 (9.6)</td>
</tr>
<tr>
<td>Decline to state</td>
<td>94 (23.0)</td>
</tr>
<tr>
<td>Total</td>
<td>408 (100.0)</td>
</tr>
</tbody>
</table>

The majority (57%) of HHHP members reported having health coverage within the past five years. Ten percent reported being uninsured for more than five years and 9.6% reported never being insured.

Research indicates that when an employer offers coverage, employees tend to enroll if they are eligible (KFF, 2009). While the majority of uninsured families in the U.S. are working families, most do not have access to employer-sponsored health coverage (KFF, 2009). The HRA asked HHHP members to select the main reason they had been without health coverage during the past 12 months. Members’ responses appear in Table 6 below.

Table 6: Reasons HHHP Members Were Uninsured During Past 12 Months

<table>
<thead>
<tr>
<th>Reason w/o Health Coverage</th>
<th># HHHP Members (% of Membership)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost job or changed employers or spouse lost job or changed employers</td>
<td>109 (26.2)</td>
</tr>
<tr>
<td>Employer doesn’t offer or stopped offering Coverage</td>
<td>81 (19.5)</td>
</tr>
<tr>
<td>Cut back to part-time work or became temporary employee</td>
<td>12 (2.9)</td>
</tr>
<tr>
<td>Couldn’t afford to pay the premiums</td>
<td>93 (22.4)</td>
</tr>
<tr>
<td>Insurance company refused coverage</td>
<td>11 (2.6)</td>
</tr>
<tr>
<td>Decline to state</td>
<td>110 (26.4)</td>
</tr>
<tr>
<td>Total</td>
<td>416 (100)¹</td>
</tr>
</tbody>
</table>

¹ While the question asked for the main reason, a few members identified more than one reason. All responses were recorded. Therefore the total number of responses is more than the number of members who completed the HRA.

Twenty-six percent of members declined to answer this question. Even with this missing information, the main reasons provided for being uninsured prior to joining HHHP were employment or cost related. More than a quarter of members were uninsured because they or their spouse lost or changed jobs. Cost was the main reason 22% of members were without coverage. Another 22% cited lack of an employer-based option or ineligibility due to part-time or temporary status. According to the Kaiser Commission on Medicaid and the Uninsured, nationally many uninsured people remain without coverage because they lack access to insurance through their job or they cannot find an affordable option (KFF, 2009).
One of the non-financial requirements of HHHP is that an applicant must have been uninsured for at least six months. That requirement is waived if the person involuntarily lost coverage due to a job layoff. Knowing that those who join HHHP have been without a regular source of care, members were asked about their Emergency Department (ED) use in the past 12 months.

Results from the 2007 National Health Interview Survey indicate that an estimated 20% of uninsured adults visited the ED at least once in past 12 months. Reported ED usage by the uninsured is similar to that of the adult insured population - 19.4% of insured adults surveyed reported visiting the ED in the past 12 months (NCHS, 2010). Table 7 lists members’ reported use compared to national estimates of ER visits by adults ages 18 to 64 based on insurance status and income.

Table 7: HHHP Members’ Reported ED Use in Past 12 Months Compared to U.S. Adults 18-64 with Incomes Greater than or Equal to 100% FPL, by Insurance Status

<table>
<thead>
<tr>
<th># ED Visits in Past 12 mos</th>
<th>% HHHP Members</th>
<th>% U.S. Adults 18-64 FPL between 100% and less than 200% (^g)</th>
<th>% U.S. Adults 18-64 FPL 200% + (^h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Uninsured &lt; 12 mos</td>
<td>Uninsured 12 mos +</td>
</tr>
<tr>
<td>1 or more</td>
<td>18.8</td>
<td>32.6</td>
<td>18.9</td>
</tr>
<tr>
<td>2 or more</td>
<td>6.3</td>
<td>14.9</td>
<td>7.2</td>
</tr>
</tbody>
</table>

\(^g\) 24.4% (100) of HRAs were returned with this question left blank.

\(^h\) NCHS, 2010

The national estimates of ED usage provide context and perspective for the HHHP member data. HHHP members are between the ages of 18 and 64 with a median income of 177% FPL. Further inferences are not made given that one quarter of the HRAs in the sample did not post a response to the ED usage question. Overall, the majority of members (56%) reported no ED visits in the past year. Fifty-one members (12.5%) made one trip to the ED in the past 12 months.

**Health Status**

The Institute of Medicine (IOM) Committee on State of the USA Health Indicators identified self-reported health status or the “percentage of adults reporting fair or poor health” as one of the top 20 health indicators (IOM, 2009a). Studies have shown its validity as a health status indicator as well as a predictor of health care utilization, morbidity and mortality (Pijls et al, 1993; Idler and Kasl, 1995; Idler and Benjamini, 1997; Miilunpalo et al, 1997; Lee, 2000).

Approximately 47% of 2009 members reported their health as “excellent” (12.5%) or “very good” (34.6%). Table 8 compares the self-reported health status of HHHP members to Howard County and Maryland estimates from the Behavioral Risk Factor Surveillance System (BRFSS).
Table 8: HHHP Members Reporting Fair or Poor Health Compared to County and State Estimates

<table>
<thead>
<tr>
<th>Self-Reported Health Status ¹</th>
<th>% HHHP Members (CI) ¹</th>
<th>% Howard County Adults (CI) k</th>
<th>% MD Adults (CI) k</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair or poor health</td>
<td>14.8 (10.5-19.1)</td>
<td>9.4 (6.3-12.5)</td>
<td>12.5 (11.5-13.4)</td>
</tr>
</tbody>
</table>

¹Response options – Excellent, Very Good, Good, Fair, Poor

10 (2.4%) members did not answer this question.

K The BRFSS percentages are weighted to population characteristics.

The percentage of adults reporting fair or poor health is similar between county and state populations. A higher percentage of low self-reported health status is seen in the 2009 HHHP member population. This difference, however, is not statistically significant based on the overlap of confidence intervals.⁹

**Chronic Disease Prevalence**

An estimated one in two American adults has at least one chronic disease (Ogden et al, 2007). Chronic diseases are responsible for 70% of all deaths in the U.S. (Kung, 2008). The IOM Committee on State of the USA indicators found the percentage of adults reporting one or more of six chronic diseases to be a key health outcome indicator. The six chronic conditions are: diabetes; cardiovascular disease; chronic obstructive pulmonary disease (chronic bronchitis and emphysema); asthma; cancer; and arthritis (IOM, 2009a).

The HRA addresses five of these six conditions; it does not ask a question related to arthritis. HHHP members were asked to identify current health problems and chronic diseases from a list of conditions (“Has a doctor informed you that you currently have any of the following health problems?”). Local and state level data are available for three of these six conditions. The percentage of HHHP members reporting asthma, diabetes or cardiovascular disease appear in Table 9 below. The reported prevalence of these three conditions is not statistically different among the three populations.

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⁹ The confidence intervals (CIs) appearing in this report are 95% confidence intervals. The formula used to calculate CIs for BRFSS data is: \[100\times(p\pm\sqrt{(1-p)p(1.5)/N})\times1.96\]. In this formula, \(p\) = prevalence (probability ranging from 0 to 1) and \(N\) = total number of people answering the particular question, excluding missing values. The adjustment of the parameter 1.5 ensures a wider, and thereby more conservative estimate of the CI (personal communication, MDDHMH, Family Health Administration – Office of Health Policy and Planning, 3/17/2010). In order to ensure consistency in the calculation of CIs, this formula was used to determine the CIs for HHHP member data.
Table 9: HHHP Members' Reported Prevalence of Leading Chronic Diseases Compared to County and State Estimates

<table>
<thead>
<tr>
<th>Chronic Condition</th>
<th>% HHHP Members (CI)</th>
<th>% Howard County Adults (CI) (^1)</th>
<th>% MD Adults (CI) (^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>8.8 (5.4-12.2)</td>
<td>8.9 (5.2 - 12.6)</td>
<td>9.4 (8.5 - 10.3)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>8.1 (4.8-12.2)</td>
<td>5.9 (3.5-8.3)</td>
<td>8.7 (7.9-9.4)</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>2.9 (0.9-4.9)</td>
<td>5.0 (2.8-7.2)</td>
<td>4.4 (3.9-4.9)</td>
</tr>
</tbody>
</table>

\(^1\) (CDC, 2008a) The BRFSS percentages are weighted to population characteristics.

Eight individuals or two percent of HHHP membership reported having chronic obstructive pulmonary disease or COPD. Approximately one percent (5 members) reported being told by a doctor that they have cancer, other than skin cancer.

**Health-related Behaviors**

Behaviors are the cause of or main contributing factor to the majority of chronic health conditions as well as to premature death and disability. Approximately 40% of deaths in the U.S. are caused by behaviors such as tobacco use, physical inactivity, poor nutrition, and excessive alcohol use (McGinnis and Foege, 1993, Schroeder, 2007). Members’ self-reported behaviors that affect health status were captured through the HRA, and are summarized below.

**Tobacco Use**

Tobacco use is the leading preventable cause of death in the U.S. (CDC, 2005) and has been found to harm multiple organs in the body (USDHHS, 2004). More than 20% of American adults are current smokers (CDC, 2009a). Smoking prevalence among Marylanders is lower than the national average, at 14.9% (CDC 2009b). Table 10 compares reported tobacco use of 2009 HHHP members to Howard County and Maryland estimates.

Table 10: HHHP Members’ Reported Tobacco Use Compared to County and State Estimates

<table>
<thead>
<tr>
<th>Tobacco Use Status</th>
<th>% HHHP Members (CI) (^m)</th>
<th>% Howard County Adults (CI) (^n)</th>
<th>% MD Adults (CI) (^n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never smoker</td>
<td>58.7 (52.8-64.7)</td>
<td>67.3 (61.8-72.8)</td>
<td>60.9 (59.4-62.3)</td>
</tr>
<tr>
<td>Former smoker</td>
<td>23.5 (18.4-28.6)</td>
<td>26.2 (21.1-31.3)</td>
<td>24.2 (23.0-25.4)</td>
</tr>
<tr>
<td>Current smoker</td>
<td>17.7 (13.2-22.3)</td>
<td>6.4 (3.5-9.3)</td>
<td>14.9 (13.8-16.0)</td>
</tr>
</tbody>
</table>

\(^m\) 8 members (2.0%) did not respond.

\(^n\) (CDC, 2008a) The BRFSS percentages are weighted to population characteristics.

The percentage of “never” or “former” smokers in the 2009 HHHP membership is similar to what is seen at the county and state levels. The reported “current” smoker status by HHHP members is noteworthy.
The HHHP membership differs from the county population regarding current tobacco use. This difference is statistically significant. The percentage of HHHP members who are current smokers is similar to what is found in the overall state population. According to 2008 BRFSS data, Howard County has the lowest smoking prevalence of all Maryland counties.

**Physical Activity**

Regular physical activity is important for good health and is associated with reduced risk of certain health outcomes such as high blood pressure and diabetes. Physical activity can help control weight as well as reduce depression and anxiety symptoms (USDHHS, 1996; USDHHS 2008). More than one-third (37%) of American adults report they are not physically active; only three in ten adults meet the recommended amount of physical activity (President’s Council on Physical Fitness and Sports, 2010). The 2008 Physical Activity Guidelines for Americans recommends that adults engage in moderate intensity physical activity (e.g. brisk walking) five days a week for a minimum of 30 minutes per day (USDHHS, 2008).

BRFSS asked county and state residents in 2007 if they achieved 30 minutes of moderate intensity physical activity five or more days a week or 20 minutes of vigorous intensity activity (e.g. jogging or running) three or more days a week. HHHP members’ reported physical activity compared to that of county and state residents is presented in Table 11.

**Table 11: HHHP Members’ Reported Physical Activity Compared to County and State Estimates**

<table>
<thead>
<tr>
<th>Adults meeting recommended physical activity guidelines</th>
<th>% HHHP Members (CI)</th>
<th>% Howard County Adults (CI)</th>
<th>% MD Adults (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults meeting recommended physical activity guidelines</td>
<td>38.6 (32.7-44.4)</td>
<td>53.6 (46.7-60.4)</td>
<td>48.2 (46.6-49.8)</td>
</tr>
</tbody>
</table>

*6 members (1.5%) did not respond.

p (CDC, 2007) The BRFSS percentages are weighted to population characteristics.

q Self-report at least 5 days a week/ 30 minutes per day of moderate intensity activity or 3 days a week/20 minutes per day of vigorous intensity activity. The physical activity question on the HRA asked – “How many days per week do you engage in aerobic exercise of at least 20-30 minutes in duration (e.g. fitness walking, cycling, jogging, swimming)?” Response options – none, one day, two days, three days, four days, five days, six days, and seven days. Response categories were combined to match BRFSS results. A member selecting three or more days per week was considered to have met the recommended guidelines.

The 2009 HHHP membership is less physically active than both Howard County residents and Maryland residents. There is a significant difference regarding physical activity between the HHHP member population and the county and state populations. Approximately 27% of members reported getting zero days per week of physical activity – the most frequent response.
Diet

Behaviors related to the type and amount of food consumed have an impact on individual health. Diets that include high amounts of fruits and vegetables are associated with decreased risk of chronic diseases (USDA, 2005). Kant et al (2004) estimated that changes in dietary behaviors (i.e. the adoption of dietary behaviors based on recommended guidelines) would reduce overall mortality by 16% in men and nine percent in women.

While dietary guidelines vary according to an individual’s caloric intake, the 2005 Dietary Guidelines for Americans (USDA, 2005) recommend a daily intake of five to 13 servings of fruits and vegetables. This is between 2.5 and 6.5 cups per day. Members reported the number of times per day they eat a serving of fruits or vegetables. In 2007, BRFSS asked a similar question of Howard Countians and Maryland residents. Table 12 lists the percentage of adults eating five or more servings of fruits or vegetables reported by all three populations.

**Table 12: HHHP Members’ Reported Fruit/Vegetable Consumption Compared to County and State Estimates**

<table>
<thead>
<tr>
<th>Adults eating fruits/vegetables 5+ times per day</th>
<th>% HHHP Members (CI)</th>
<th>% Howard County Adults (CI)</th>
<th>% MD Adults (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2 (4.9-11.4)</td>
<td>27.1 (21.2-32.9)</td>
<td>26.6 (25.2-28.0)</td>
<td></td>
</tr>
</tbody>
</table>

4 members (0.9%) did not respond.

(CDC, 2007). The BRFSS percentages are weighted to population characteristics.

The difference in reported fruit/vegetable consumption between HHHP members and the county and state populations is significant. Eight percent of 2009 HHHP members ate five or more servings of fruits or vegetables compared to 27% of Howard County adults and more than 26% of Maryland adults. The majority of members, 141 (34.6%), reported two servings per day.

**Excessive Alcohol Use**

Excessive drinking is the third leading behavior-related cause of death in the U.S. (Mokdad et al, 2004). Approximately 79,000 Americans die each year from excessive alcohol use (CDC, 2008b). Excessive drinking is associated with immediate as well as long term health risks in men and women (CDC, 2008c). The current Dietary Guidelines for Americans (USDA, 2005) recommend that any drinking be done in moderation. Women should not exceed more than one drink per day; and men should not exceed more than two drinks per day. Individuals with certain health conditions are advised not to consume any alcohol (USDA, 2005).

The HRA asked members to report their alcohol use per week. Table 13 presents HHHP members’ reported alcohol use.
Table 13: HHHP Members’ Reported Alcohol Use

<table>
<thead>
<tr>
<th># of Drinks Per Week</th>
<th># HHHP Members (% of Membership)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seldom or never</td>
<td>274 (67.2%)</td>
</tr>
<tr>
<td>1 to 7</td>
<td>96 (23.5%)</td>
</tr>
<tr>
<td>8 to 14</td>
<td>18 (4.4%)</td>
</tr>
<tr>
<td>15-20</td>
<td>6 (1.5%)</td>
</tr>
<tr>
<td>21 or more</td>
<td>3 (0.7%)</td>
</tr>
<tr>
<td>Did not report</td>
<td>11 (2.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>408 (100.0%)</td>
</tr>
</tbody>
</table>

*11(2.7%) members did not respond.*

Alcohol use appears to be low in the 2009 HHHP member population. More than 67% (274) of members replied that they seldom or never drink. Comparable county and state data for alcohol use are not available due to a difference in question wording and response choices. In 2008, 66.4% of Howard County residents reported having at least one drink of alcohol in the past 30 days (CDC, 2008a). Approximately six percent of residents reported being heavy drinkers. A “heavy drinker” is defined as two or more drinks per day for adult men and more than one drink per day for adult women (CDC, 2008a).

**Unmet Health Needs**

A significant body of research exploring the consequences on being uninsured has found that those without coverage are less likely than those with coverage to access preventive care and other key health care services such as treatment for chronic conditions (IOM, 2004; Hadley, 2007; Dorn, 2008; KFF, 2009). The IOM Committee on State of the USA Health Indicators identified unmet need of medical, dental and prescription drug services as a key indicator of health (IOM, 2009a).

Members’ self-reported access to certain preventive and health services were captured through the HRA. A summary follows of responses to questions regarding last physical exam, dentist visit, recent flu vaccination and preventive services specific to women’s health.

**Last Physical Exam**

Regular physical exams – also known as preventive health exams and commonly referred to as check-ups – present an opportunity for screenings, evaluation of health risk factors and health promotion. Previous research indicates that a majority of providers and patients find annual preventive health exams to be important (Obler et al, 2002; Prochazka et al, 2005). Time since last physical exam is a measure of unmet medical need. HHHP members were asked to report the time since his or her last physical exam. Similar county and state level data are also available and appear alongside HHHP member results in Table 14.
Forty-two percent of members reported having a physical exam or check up within the past year. This is a significantly smaller percentage than what is reported by Howard County or Maryland residents. The difference, however, is not surprising given that the majority of HHHP members reported spending the past year without health insurance (Table 5). When state-level estimates are stratified by reported insurance status (“Have Any Kind of Health Coverage?” – Yes/No), the percentage of HHHP members receiving a physical exam within the past year is similar to what is found in uninsured Marylanders. County-level data on time since last physical exam were not available by health coverage status.

**Last Dental Exam**

In 2000, the U.S. Surgeon General released a report on oral health in America highlighting the link between oral health and general health and the disparities in good oral health among populations (USDHHS, 2000). Research studies suggest associations between periodontal disease and several health conditions including cardiovascular disease (Desvarieux et al, 2005) and diabetes (Ship, 2003). One common way to measure access to dental care is to ask individuals to report the last time they went to the dentist. Table 15 compares HHHP members’ reported last dental exam to county and state populations.

**Table 14: HHHP Members’ Reported Last Physical Exam Compared to County and State Estimates**

<table>
<thead>
<tr>
<th>Date of Last Physical Exam/ Routine Check up</th>
<th>% HHHP Members &lt;sup&gt;u&lt;/sup&gt; (CI)</th>
<th>% Howard County Adults &lt;sup&gt;v&lt;/sup&gt; (CI)</th>
<th>% MD Adults &lt;sup&gt;v&lt;/sup&gt; (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Insured</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Uninsured</td>
</tr>
<tr>
<td>Less than 1 yr</td>
<td>42.7 (36.8-48.8)</td>
<td>68.2 (62.4-74.0)</td>
<td>72.9 (71.8-74.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>46.5 (42.1-50.9)</td>
</tr>
<tr>
<td>Between 2 and 5 yrs</td>
<td>41.0 (35.0-46.9)</td>
<td>9.0 (5.4-12.6)</td>
<td>8.4 (7.7-9.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 (16.4-23.6)</td>
</tr>
<tr>
<td>5 or more yrs</td>
<td>16.3 (11.8-20.8)</td>
<td>5.5 (2.7-8.3)</td>
<td>4.2 (3.7-4.7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16.9 (13.6-20.2)</td>
</tr>
</tbody>
</table>

<sup>u</sup>15 (3.7%) members did not respond.

<sup>v</sup>(CDC, 2008a). The BRFSS percentages are weighted to population characteristics. The response options for this question differed between BRFSS and the HHHP HRA. In addition to the time period options listed in the Table 14, a BRFSS respondent could select “Never Went” or “1 to less than 2 years”.

**Table 15: HHHP Members’ Reported Last Dental Exam Compared to County and State Estimates**

<table>
<thead>
<tr>
<th>Date of Last Dental Exam</th>
<th>% HHHP Members &lt;sup&gt;x&lt;/sup&gt; (CI)</th>
<th>% Howard County Adults &lt;sup&gt;w&lt;/sup&gt; (CI)</th>
<th>% MD Adults &lt;sup&gt;w&lt;/sup&gt; (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visited dentist in past 12 mos</td>
<td>37.7 (32.0-43.5)</td>
<td>77.3 (72.2-82.4)</td>
<td>72.6 (71.2-74.0)</td>
</tr>
</tbody>
</table>

<sup>x</sup>(CDC, 2008a). The BRFSS percentages are weighted to population characteristics.

<sup>w</sup>BRFSS question – “Visited the dentist or dental clinic within the past year for any reason?” (Yes/No); HRA question – “Dental exam within the past year?” (Yes/No)
HHHP members reported limited access to dental care within the past 12 months. A significant difference in visits to the dentist is observed between the 2009 HHHP members and the county and state populations. Reported access to dental care by HHHP members was much lower than that of both Howard County and Maryland residents. Members’ previous lack of health care coverage could have influenced reported dentists visits. As seen with time since last physical exam (Table 14), when state-level estimates are stratified by reported insurance status, HHHP members were similar to uninsured Marylanders.

**Seasonal Flu shot**

Between five and 20% of the U.S. population contracts seasonal influenza or the flu each year (CDC, 2009c). Flu is responsible for an estimated 200,000 hospitalizations (Thompson et al, 2004) and 36,000 deaths per year (Thompson et al 2003; 2009). The CDC’s Advisory Committee on Immunization Practices (ACIP) provides a recommended immunization schedule for adults. Vaccination against influenza or a flu shot is recommended for adults ages 19-49 with certain chronic health conditions. Adults ages 50 and older are advised to get a flu shot each year.¹⁰

HHHP members were asked if they had received a flu shot in the past year. The percentage of members vaccinated against the seasonal flu in the past year is compared to the percentages of all adults vaccinated in the county and state (Table 16).

**Table 16: Flu Shot in Past Year - HHHP Members Compared to County and State Estimates**

<table>
<thead>
<tr>
<th></th>
<th>% HHHP Members (CI)</th>
<th>% Howard County Adults (CI)</th>
<th>% MD Adults (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received flu shot in past 12 mos</td>
<td>21.1 (16.2-25.9)</td>
<td>42.4 (36.3-48.6)</td>
<td>38.5 (37.3-39.7)</td>
</tr>
</tbody>
</table>

¹ (CDC, 2008a). The BRFSS percentages are weighted to population characteristics.

It is important to note that the BRFSS question is asked of all adults while HHHP members’ age range is between 19 and 64. Given that older people are included in the county and state survey, the difference between HHHP members and the general county and state populations regarding receipt of the seasonal flu shot is not surprising. Twenty one percent of HHHP members reported receiving a flu shot in the past year prior to joining the Plan.

**Preventive Services for Women**

Effective screening services are critical for early detection of asymptomatic cancers, which can expand treatment options and improve survival rates. For women, mammography is an effective screening test for breast cancer and the Pap smear is an effective screening test for cervical cancer. According to the American Cancer Society (2009), breast cancer is the second leading cancer diagnosis in women, after skin cancer. It is also the second leading cause of cancer deaths in women. More than 11,720 new cases of cervical cancer were expected to be diagnosed in the U.S in 2009. Although cervical cancer mortality

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¹⁰ The immunization schedule is reviewed and updated each year. The 2007-08 and 2009 recommendations for influenza vaccine did not change for adults ages 19 to 49 and ages 50 and older (ACIP, 2007; ACIP, 2009)
rates have declined in recent years, more than 4,000 deaths from cervical cancer were expected nationwide in 2009 (ACS, 2009).

In November 2009, the U.S. Preventive Services Task Force (USPSTF) updated its screening recommendations for breast cancer. The previous guidelines are relevant for this report since they reflect standard practice at the time members completed the HRA. Previous guidelines recommended a mammogram every one to two years for women over the age of 40 (USPSTF, 2002). Screening for cervical cancer using a Pap test is strongly recommended by USPSTF for women who have been sexually active and who have a cervix (USPSTF, 2003).

The HRA asked female HHHP members to report on prior access to these two preventive screening tests. In order to compare HHHP member results to mammography screening practices within the county and state populations, it was necessary to control for member age. BRFSS offers county and state percentages of women over the age of 40 who had a mammogram in the past 2 years. For the Pap test, BRFSS asks about receipt of PAP tests for women over the age of 18.

There were 239 female HHHP members in 2009 and all were at least 18 years-old. One hundred and forty-eight women were over the age of 40. Table 17 presents the percentages of HHHP women receiving breast and cervical cancer screening tests compared to screening prevalence at the county and state levels.

<table>
<thead>
<tr>
<th>Screening Test</th>
<th>% HHHP Women (CI)</th>
<th>% Howard County Women (CI)</th>
<th>% MD Women (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women &gt; 40 with mammogram in past 2 yrs</td>
<td>58.8 (49.1-68.5)</td>
<td>80.4 (73.7-87.1)</td>
<td>77.0 (75.3-78.6)</td>
</tr>
<tr>
<td>Women &gt; 18 with Pap test in past 3 yrs</td>
<td>58.2 (50.5-65.8)</td>
<td>89.9 (83.8-96.0)</td>
<td>84.2 (82.4-86.0)</td>
</tr>
</tbody>
</table>

(CDC, 2008a). The BRFSS percentages are weighted to population characteristics.

Howard County women over the age of 40 and Maryland women over the age of 40 report similar uptake of screening for breast and cervical cancers. Women in the same age cohort enrolled in HHHP, in contrast, report lower uptake of both mammograms and Pap tests. The differences in percentages are statistically significant for both screening tests.
PART III: FINDINGS FROM 2009 MEMBERS’ HEALTH ACTION PLAN GOALS

A unique aspect of this public-private health care program is the compulsory health coaching. Each member works with a health coach to develop a Health Action Plan (HAP) and set goals and action steps for the member to work on for a period of six months.

HEALTH COACH MODEL

PURPOSE
- To provide prevention-focused and evidence-based coaching to HHHP members in an effort to decrease the risk of future disease development, maximize social capital and self efficacy and improve quality of life. Coaches work to empower members to take an active role in improving their health.

TECHNIQUE
- Using the Trans-theoretical model and Motivational Interviewing, coaches help members to identify health-related changes they wish to make in their lives and to develop six-month plans for working toward those changes.
- The professional expertise of the coaching staff, a host of community resources and the Plan’s health care providers coordinate to help members reach their goals.
- Coaches develop a rapport with members through a series of in-person meetings and regular telephone check-ins. Meetings are conducted in community settings, not in the doctor’s office.

Source: Healthy Howard, Inc., 2010b.

In order to gain insight into what members are working on with their coaches, a content analysis of Health Action Plans was conducted. A total of 125 HAPs were included from members who began coaching during the first six months of the program (January 1 to June 30, 2009). HAPs include a goal statement(s) and a series of actions steps the member needs to follow in order to reach his or her stated goal.

The HAP is a member-driven process, with guidance from the coach. The result – HAPs vary in the types of goals set as well as in the level of detail and wording. The same variation is also reflected in the related action steps. Figure 5 lists four examples of goal statements and action steps from HHHP members. Information that could be considered too specific to share in a public report (e.g. specific blood sugar levels or prescription drug name) were removed or re-worded.
### Figure 5: Example Goals/Action Steps from Health Action Plans

<table>
<thead>
<tr>
<th>Goal(s):</th>
<th>In the next six months lose 25-30 lbs. Lose 5 lbs per month.</th>
</tr>
</thead>
</table>
| **Action Steps:** | 1. Go to gym 2-3 days per week for 30-60 minutes.  
2. Walk on treadmill at least 1 day per week [when it gets warmer, go to the Lake and walk].  
3. Eat smaller portions at meals and add salad or other veggies.  
4. Try to drink 5 glasses of water per day. |

<table>
<thead>
<tr>
<th>Goal(s):</th>
<th>Maintain blood sugar between [x] and [x] per doctor’s direction.</th>
</tr>
</thead>
</table>
| **Action Steps:** | 1. Consistently take my medications.  
2. Start keeping a food journal to track diet.  
3. Exercise at least 3 times a week. |

<table>
<thead>
<tr>
<th>Goal(s):</th>
<th>Quit smoking all together by end of six months. Find other ways to deal with stress.</th>
</tr>
</thead>
</table>
| **Action Steps:** | 1. Keep [low-cal snack food] in car and home at all times to help with cravings.  
2. Keep taking [anti-depressant smoking cessation aid]  
3. No more than 4 cigarettes per week in first month. Each month – 1 fewer cigarette per week.  
4. Continue the exercise routine you already do. |

<table>
<thead>
<tr>
<th>Goal(s):</th>
<th>I would like to eat better – to eat more fresh fruits and vegetables and more grains.</th>
</tr>
</thead>
</table>
| **Action Steps:** | 1. Start eating a salad and piece of fruit for my lunch.  
2. Increase daily water intake by 1 8oz bottle. Each month increase by 1 more 8 oz bottle.  
3. Put some money aside each week to go to the produce stand and get fresh vegetables.  
4. Right now, I only have coffee for breakfast. I will add a ½ of a banana to my breakfast, starting with 2-3 days per week. |

Six main categories of goals were identified in the sample of members’ HAPs. Given the general nature of the categories, each one is further divided into or defined by sub groups or sub categories. The HAP goal categories are described in detail in Table 18.
Table 18: Health Action Plan Goal Categories

<table>
<thead>
<tr>
<th>Goal Category</th>
<th>Category Description</th>
<th>Sub Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>Member sets a goal to change smoking/tobacco use behavior.</td>
<td>Quit smoking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce smoking</td>
</tr>
<tr>
<td>Exercise</td>
<td>Member sets a goal to change behaviors around exercise/ physical activity.</td>
<td>Start exercise routine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improve current exercise routine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain current exercise routine</td>
</tr>
<tr>
<td>Food</td>
<td>Member sets a goal to change behaviors related to food and eating.</td>
<td>Eat more healthy foods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase intake of water and healthy beverages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decrease intake of unhealthy beverages (alcohol and soda)</td>
</tr>
<tr>
<td>Weight</td>
<td>Member sets a goal to change his/her weight.</td>
<td>Lose weight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lose a particular amount of weight</td>
</tr>
<tr>
<td>Manage Health</td>
<td>Member sets a goal to manage a health condition (specific condition named or general health condition).</td>
<td>Manage diabetes</td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td>Manage blood pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manage other health condition</td>
</tr>
<tr>
<td>Social Factors</td>
<td>Member sets a goal to change a living or working condition or an aspect of his/her social environment.*</td>
<td>Employment/Career advancement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Member sets goal to get a job, find a new job or advance in current position or field.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Education/Training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Member sets goal to gain new skills through education or formal training program.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manage finances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Member sets goal to better organize and manage personal finances.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stress management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Member sets goal to manage or reduce stress.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personal development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Member sets goal to pursue specific form of self improvement.</td>
</tr>
<tr>
<td>Unknown</td>
<td>Goal statement was not clear enough to code.</td>
<td></td>
</tr>
</tbody>
</table>

* The Dalhren and Whitehead (1991) and Evans and Stoddart (1990) models informed the development of the “social factors” category name and description to encompass goals focused on issues beyond traditional conceptions of physical health. These models describe the multiple layers of influence on health such as living and working conditions (e.g. employment, education) and social networks. They are comprehensive models of health determinants.
Coaches encourage members to keep the total number of goals low (one or two goals) because each goal will contain a set of action steps and they want to encourage members to undertake a manageable plan for improving health. Over 80% of members (101) focused on one goal in their HAP. Nineteen or 15% identified two goals. Only four members articulated three or more goals.

The most common goal in the Health Action Plans related to exercise, identified in one-third of the documents. Taking steps to address social factors and weight followed next, and were found in 21% and 18% of HAPs, respectively. Goals focused on food and eating appeared in close to 12% of HAPs (Table 20).

Table 19: Frequency of Health Action Plan Goals

<table>
<thead>
<tr>
<th>Goal Category</th>
<th># Members Identifying Goal (% of Member Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise</td>
<td>51 (32.9%)</td>
</tr>
<tr>
<td>Social Factors</td>
<td>33 (21.3%)</td>
</tr>
<tr>
<td>Weight</td>
<td>28 (18.1%)</td>
</tr>
<tr>
<td>Food</td>
<td>18 (11.6%)</td>
</tr>
<tr>
<td>Manage health condition</td>
<td>17 (11.0%)</td>
</tr>
<tr>
<td>Smoking</td>
<td>4 (2.6%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>4 (2.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>155 (100.0%) ^</td>
</tr>
</tbody>
</table>

^The total is more than the number of members in the sample. Members could identify more than one goal in a Health Action Plan.

Subsequent Research Reports will provide more in-depth analysis of health coaching and the Health Action Plans.
PART IV: DISCUSSION

The current research literature on the uninsured describes this population’s typical demographic profile as well as the increased negative health consequences that result from lack of access to care. *Research Report #1* expands our understanding of what it means to be without health care coverage in Howard County, Maryland. The findings have implications for what it means to be uninsured in Maryland as well as in America.

The self-report data from a group of recently uninsured county residents highlights the prevalence of critical health-behaviors, specific unmet medical needs and perceived priority health goals. The findings from *Research Report #1* are discussed below.

**HHHP Members are Typical Howard County Residents, Based on Demographics**

HHHP members reside in all parts of the county and the enrollment by age, family size, marital status and ethnicity closely mirrors county demographics. A difference in racial composition was identified. The majority of HHHP members and county residents are White. Blacks or African Americans and Asians represent a higher percentage of HHHP membership than what is seen in the overall county population. Asian is the second most common race in the Plan, representing 29% of members. It is the third most common race in the county at 12% (U.S. Census Bureau, 2010a). Close to 24% of members reported being Black or African American. In contrast, 18% of county residents are Black or African American (U.S. Census Bureau, 2010a). More than 12.5% of HHHP members declined to state a race, therefore, it is not known whether the difference observed is a significant one.

The main difference between an HHHP member and the average county resident is income. While the Plan’s income eligibility requirements automatically limit the membership’s average income between 117% and 300% FPL, it is interesting to note the contrast with county residents’ income. HHHP’s median annual income is 177% FPL or approximately $19,000 a year for a family of one, $25,789 for a family of two, and $39,000 for a family of four. Howard County’s median household income is $101,710 or 698% FPL for a family of two. The media income for non-family households in the county is $62,866 or 580% FPL (U.S. Census Bureau, 2010a).\(^{11}\)

Despite the difference in annual income between HHHP members and the overall county population, enrollees’ income distribution is similar to what is known about the nation’s uninsured. According to the Kaiser Commission on Medicaid and the Uninsured, two-thirds of uninsured Americans have incomes below 200%FPL (KFF, 2009). Sixty-seven percent of members’ incomes are under 200% FPL.

Between 4.8% and 7.8% of adults under the age of 65 are uninsured in Howard County (U.S. Census, 2008). However, many more may be without health care coverage due to the recent change in the economy. In addition, as discovered by HHHP outreach efforts, there are families who are eligible for existing health care programs but are not enrolled. Based on what has been observed in other states (Arjun and Guyer, 2008), the media attention generated by the Plan’s launch and the related outreach efforts appear to have increased county residents’ awareness of health care options and helped identify already-eligible uninsured residents for state and federal health care programs. One of the reasons offered for other states’ experiences of increased enrollment of already-eligible individuals after Medicaid and SCHIP expansion is that the negative attitudes and stigma sometimes associated with

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\(^{11}\) Income is in 2008 inflation-adjusted dollars.
entitlement programs are diminished when changes allow for a much broader segment of the population to enroll (Arjun and Guyer, 2008).

This public awareness and interest in health care is also likely to have been influenced by Maryland’s expansion of Medicaid income eligibility for families. In July 2008, three months prior to HHHP’s launch, families with children and incomes up to 116% FPL became eligible to obtain free and full health care coverage through the Medicaid for Families program.

**HHHP Members are Part of Working Families with History of Health Care Coverage**

Eight in ten uninsured Americans are in working families (KFF, 2009). The same is true in the Plan – 84% of members work or are part of working families.

Approximately 21% of Americans under the age of 65 reported being uninsured within the past year, the majority of which said they were without coverage for more than 12 months (NCHS, 2010). One of HHHP’s eligibility criteria is that a person must be uninsured for a minimum of six months prior to enrolling. This time period can be waived if the applicant involuntarily lost coverage due to a layoff. When reporting time spent without coverage, more than 57% of members had health care within the past five years, 24% of whom were uninsured for one year. Further inferences cannot be made due to the fact that almost one-quarter of members did not respond to this particular HRA question.

What is known from the literature regarding employee uptake of health coverage is that employees tend to enroll if it is offered and if they are eligible (KFF, 2009). The problem is that the majority of jobs worked by members of uninsured families do not offer health insurance (KFF, 2009). The main reasons uninsured families across the nation remain without coverage is because they lack access through their job or they are unable to find affordable private coverage (KFF, 2009). The same reasons were identified by HHHP members. Due to the average low income of most uninsured families, many are unable to identify affordable private coverage (KFF, 2009). More than a quarter of members were uninsured because they or their spouse lost or changed jobs. Twenty-two percent of members cited cost as the main reason for being uninsured. With an average income of 177% FPL, families are able to cover their children in the Maryland Children’s Health Program (MCHIP) but make too much money to qualify for existing state or federal programs, are more likely to work in a job that does not offer health care and less likely to be able to afford private coverage. HHHP was designed to meet the health care needs of people in this very situation.

HHHP members confirm what is known in general about those without health care coverage in our population – uninsured does not equal never insured. There are several factors, however, that serve to restrict or extend the period of time spent without access to health care. For example, 11 members reported being denied private coverage as the reason for being uninsured. While dis-enrollments have occurred because the opportunity for full health insurance became available through a new employer, the majority of Plan members would not have an affordable option for health care coverage without HHHP.
**HHHP Members are a Population at Risk**

There are significant health consequences to being uninsured. Research has shown that coverage does matter for individual and community health outcomes (IOM, 2009b). According to the literature, adults without health insurance are: much less likely to receive preventive care; more likely to delay or do without effective treatments and prescriptions for chronic diseases; more likely to have cancer diagnosed at later stages; more likely to die from trauma, heart attacks and strokes; and more likely to have reduced quality of life and premature death (IOM, 2009b).

The list of risks and negative effects is long but studies show that most can be fixed or resolved by obtaining health care coverage (IOM, 2009). Based on the analysis of HRA data, HHHP members appear to be a population at risk of developing several future health problems. Despite similar chronic disease prevalence rates and self-reported health status between members and county and state populations, members have significantly higher rates of tobacco use, physical inactivity and poor diet. These behaviors are the cause of or main contributing factor to the majority of chronic health conditions as well as premature deaths and disability. Approximately 40% of deaths in the U.S. are caused by behaviors such as tobacco use, physical inactivity, poor nutrition, and excessive alcohol use (McGinnis and Foege, 1993; Schroeder, 2007). In addition, prior to joining HHHP, members experienced greater unmet medical and dental needs and received fewer preventive services than Howard County or Maryland adults.

The HHHP membership differs from the county population regarding tobacco use prevalence. This difference is statistically significant. Approximately 17% of members are current smokers compared to six percent of county residents. Howard County does have the lowest smoking prevalence of all Maryland counties. HHHP members’ tobacco use is on par with that of the state. Members are also significantly less physically active than both their county and state cohorts. Diet-related behavior such as fruit and vegetable consumption is significantly lower in HHHP compared to the county and state. Eight percent of 2009 HHHP members ate five or more servings of fruits or vegetables compared to 27% of adults in Howard County and in the state. The majority of members, 141 (34.6%), reported eating two servings per day. Although variation in question wording and response options limit a more direct comparison across population regarding excessive alcohol use, HHHP members do not report high drinking levels. More than 67% (274) of members replied that they seldom or never drink. In 2008, 66% of Howard County residents reported having at least one drink of alcohol in the past 30 days (CDC, 2008a).

Howard County women and Maryland women over the age of 40 report similar uptake of screening for breast and cervical cancers. Women in the same age cohort enrolled in HHHP, in contrast, report lower access to both mammograms and Pap tests. Eighty percent of women in Howard County over the age of 40 had a mammogram within the past two years, compared to 58% of HHHP women in the same age group. Fifty-eight percent of HHHP women over the age of 18 had a Pap test the last three years compared to close to 90% of Howard County women.

Health insurance status may have some influence on the differences observed between HHHP members and the average Howard County or Maryland resident. For example, the percentage of HHHP members who received a physical exam in the past year was quite different from what was reported by Howard County adults. Yet, when time since last physical exam among Maryland adults was stratified by health care coverage, members’ reported access is similar to that of uninsured Marylanders.
A report by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute recently identified Howard County as the healthiest county in the state of Maryland. This determination was made based on several factors include health behaviors and health outcomes (UWPHI, 2010). Given the information gained from HRAs, HHHP members likely represent the residents with a high number of health challenges in a very healthy county. Even in a healthy and affluent county, health disparities exist.

**HHHP Members are Working to Improve Health Behaviors and Living/Working Conditions**

Research has shown that access to care improves health outcomes in previously uninsured individuals (IOM, 2009b). County residents joining HHHP, therefore, have the potential to benefit from the access to health care made available through the Plan. Based on current members’ health-related behaviors, this is also a population likely to benefit from a health coaching program.

A unique aspect of HHHP is the compulsory health coaching. Each member works with a coach to develop a Health Action Plan (HAP) and set goals and action steps to work on for a period of six months. The initial categorization of HAP goals reveals members are working with their coaches to address the very behaviors that put this population at risk for future health problems.

Goals identified from HAPs focused on one or more of the following six categories – smoking; exercise/physical activity; food/diet; weight management; manage health condition (e.g. diabetes); and social factors (e.g. education, employment, finances). The most common HAP goal, found in 33% of the sample HAPs, was exercise/physical activity.

The prevalence of goals related to social factors is noteworthy. Members set goals specific to living and working conditions such as education or training, employment or career advancement, finances, and stress management. The appearance of such goals reinforces what is known regarding the multiple layers of influence on health and how factors like income, employment, education and social networks impact health status and health outcomes (Evans and Stoddart, 1990; Dalghren and Whitehead, 1991; IOM, 2002).

Subsequent Research Reports will explore a number of additional topics including HHHP’s utilization and cost profiles and health coaching effectiveness. Research Report #1 presents a detailed view of the demographics and baseline health status of previously uninsured individuals enrolled in a new and innovative county-based public-private health care program during 2009. In many ways, the uninsured in Howard County are not that different from their county neighbors. What does set them apart, and what puts them at risk for a number of health problems, is their lack of access to affordable health care. Under HHHP, that is starting to change. HHHP members have access to preventive services and a support system through health coaching designed to address the risk factors that lead to poor health outcomes. HHHP offers a response to one of the most challenging public health problems in the United States today. The effects of this response will be important to monitor as the Plan evolves and as previously uninsured residents experience the benefits of the Healthy Howard Health Plan.
PART V: REFERENCES


A copy Research Report #1 – Healthy Howard Health Plan: A Summary of Inaugural Members’ Demographics, Health Status and Goals in 2009 – is available for downloading from the Department of Health, Behavior and Society’s website at http://www.jhsph.edu/dept/hbs