MGH 2015 Community Health Survey

Data Output & Analysis

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Introduction and Report

In 2008 and 2011, a community wide survey was administered across Grant County to provide a comprehensive assessment of the community's health status, behaviors, and education. The following is the third assessment, which was most recently conducted in the fall of 2015.

The forthcoming report will be laid out in the following manner:

I.   Executive Study—summary highlights of the 2015 community health survey data
II. Survey methodology and considerations
III. Output—descriptive statistics results (tables & bar charts) from the survey data

I.   Executive Summary

The 2015 community health survey consisted of the following primary health category dimensions:

1) Demographics
2) Health Care Access
3) Nutrition
4) Fruits and Vegetables
5) Sugar Sweetened Beverages and Menu Labeling
6) Exercise and Activities
7) Screenings
8) Substance Use
9) Emotional and Life Satisfaction
10) Weight
11) Hypertension Awareness
12) Cholesterol Awareness

13) Diabetes

Each category utilized an array of questions in order to provide point estimates of the community's health status and/or risk exposure relative to the category. Below is a summary of each category based upon survey output.

Demographics

According to the US Census Bureau, Grant County has approximately 67,000 residents as of 2015 (a 3% decrease from 2010). As of 2015, the gender ratio is 52.2% female and 47.8% male. 89% of the population is considered "White alone"; 7.2% is considered to be African American; and 4.2% is considered to be Hispanic/Latino. As of 2015, over 85% of the county was considered to have a "high school education or higher" and approximately 17% was considered to have a bachelor's degree or higher.

Also, according to the Census, in 2015 approximately 13% of county residents were considered to have a disability while being under the age of 65. Further, 13.6% were identified as not having health insurance while being under the age of 65.[1]

When considering the 2015 MGH survey sample, the mean age of survey recipients was 44 years old, with a standard deviation of approximately 19 years (Census mean age is approximately 40 years of age for Grant County). 86.2% of respondents were White, 6.3% were Black or African American, and 3.2% were Multi-Racial. Further, approximately 58% of respondents were married, 7.8% were divorced, 5.6% were widowed, and over 21% were never married. Related, a small proportion of the sample had more than 1 child living in the home.

Over 50% of the sample has either attended or completed college, and over 50% are currently employed for wages (with less than 5% of the sample being out of work for less than or more than 1 year). Approximately 50% of survey respondents earn over $35,000 per year—and over two-thirds are homeowners.

Of interest, nearly 17% of survey participants indicated that they were "limited" in some way related to their activities due to physical, mental, or emotional problems. Moreover, nearly 43% indicated that they "have serious difficulty walking or climbing stairs."

***NOTE**: Survey participants were overwhelmingly female by an approximately 77% to 23% ratio. This suggests some bias in the sample, which could limit the generalizability of survey results.

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[1] All Census references are found at the following:
http://www.census.gov/quickfacts/table/PST045215/18053,18097

Health Care Access

Approximately 13% of the respondents have health care coverage under Medicare or Medicaid. The majority (43.8%) of the sample have health care through their employer. Over 75% of respondents indicated that they were not "delayed" in getting their needed medical care, with over 6% indicating that they "could not get an appointment soon enough."

Over 7% indicated that in the past 12 months there was a time when they did not have any health insurance or coverage. Over 90% of survey participants visited the doctor at least once within the last year.

Of interest, over 12% of respondents indicated that, within the last 12 months, they did not take a prescribed medication due to the prohibitive cost of the medication, and over one-third of the sample indicated that they currently possessed medical bills that were being paid off over time.

Nutrition

Over 50% of respondents indicated that they ate at least one meat serving per day. As it related to fast food, 28%, or nearly one-third, suggested that they "seldom" ate fast food, and 8.8% indicated that they ate fast food "daily." Similarly, 24.2% of respondents indicated that they "seldom" ate out at a sit down restaurant, and 3.5% ate at a sit down restaurant "daily."

Fruits and Vegetables

A little over one-third of the sample indicated that they failed to drink at least one 100% fruit juice within a given month. Well over 90% indicated that they consumed fruit at least once a month, and over 70% indicated consuming some type of bean (or bean-based food item) within a given month. Approximately 85% consumed some type of dark vegetable, 83% an orange colored vegetable, and 96% some other type of vegetable—all within the previous month.

Sugar Sweetened Beverages and Menu Labeling

Over 50% of the sample marked that they you drink regular soda or pop that contains sugar within a given week, where approximately only one-third drink a sweetened fruit drink (e.g., lemonade or Kool-Aid) within a given week.

When eating out, respondents indicated that "calorie-information" helps them to decide what to eat to varying degrees: 5% "Always"; 15% "Most of the Time"; 11% "About Half the Time"; 32% "Sometimes"; and 35.5% "Never."

Exercise and Activities

Approximately two-thirds of the sample indicated that they get to exercise at least once within a given week, with 17% indicating that they were limited in some activities because of physical, mental, or emotional problems.

Of interest, 75% of respondents indicated watching at least one hour of television per day, with nearly one-sixth of the entire sample watching "4 or more" hours of television per day. Approximately 54% of respondents indicated playing video or computer games or using a computer for something that is not related to work (e.g., social media), with nearly 8% of the entire sample watching or playing "4 or more" hours per day.

82% of the sample indicated that they could do "all" or "most" of the things they would like to do.

Screenings

Two-thirds of the sample engaged in a physical by a physician or a medical provider within the last year. Moreover, over 75% of the sample had health insurance that paid for wellness & preventive health screenings/physicals.

Over two-thirds of respondents had undertaken a blood glucose (sugar) test to check for diabetes (where 22% indicated they had never had this test).

Of the female respondents, over 20.9% indicated that they had undertaken a check-up for cervical cancer, and 21.8% for breast cancer. Of the male respondents, 9% indicated that they had undertaken a PSA test for prostate cancer.

Just under 40% of the sample has had a Sigmoidoscopy or colonoscopy at some point (where just under 60% had indicated that they had not). 37% of the sample had undertaken a skin check for skin cancer (59% had not), and over 75% indicated having a blood test aimed to measure cholesterol and/or other lipids.

Less than one-fifth of the sample had undertaken a hearing test within the last two years (and over 50% indicated that "the last time they had their hearing checked" was five years or over).

Substance Use

Only one-third of the sample indicated that they were taking "0" prescription drugs per day (12% indicated taking "5 or more" per day). Over 72% of respondents denoted drinking "0" alcoholic beverages in a week (3.5% indicated "5 or more" per week). 85% of respondents noted that they had never used drugs other than those prescribed by your medical provider (83% had never smoked marijuana; 93.5% had never used cocaine, crack, freebase, or heroin; and 2.2% of respondents suggested that they could not stop using illegal drugs when they wanted to).

As it relates to tobacco use, 87.8% of the sample indicated that they did not smoke cigarettes or e-cigarettes (nearly two-thirds noted that they had never smoked a cigarette in their life), while nearly 95% indicated that they do not use chewing tobacco.

Emotional and Life Satisfaction

Of interest, over 74% of the sample suggested that they "always" or "usually" get the social and emotional support that they need (with 4% saying they "never" get the social and emotional support they need). Moreover, nearly 90% of survey respondents indicated that they are, in general, either "satisfied" or "very satisfied" with their lives (with <8% indicating they were "dissatisfied" or "very dissatisfied").

Within the past 30 days, nearly 60% of the sample indicated that they felt very healthy and full of energy "all of the time" or "most of the time" (with over 12% suggesting that they felt very healthy and full of energy "a little" or "none"). Also within the past 30 days, nearly one-third of the respondents indicated feeling—at least "some" of the time—so depressed that "nothing could cheer them up." Similarly, respondents indicated feelings of anxiety. When asked, "During the past 30 days, about how often did you feel worried, tense, or anxious?"—3.3% of respondents answered "all of the time"; 11% "most of the time"; and 33% "some of the time" (12.7% answered "none").

When asked about feelings of hopelessness (how often did "you feel hopeless?") <2% of survey respondents answered "all of the time"; 3.8% "most of the time"; and 12.1% "some of the time" (61% answered "none").

When asked about debilitating pain (how often did "pain make it hard for you to do your usual activities, such as self-care, work, or recreation?") <1% of survey respondents answered "all of the time"; 2.7% "most of the time"; and 7.2% "some of the time" (69% answered "none").

Weight

When looking at weight, approximately 19% of the sample weighed between 200 and 250 pounds, and approximately 7% weighed more than 250 pounds. Nearly one-third of the sample indicated a change in weight within the last year that was "intentional"—with over 60% of respondents indicating that they were actively trying to lose weight and approximately 19% trying to "stay the same weight."

Hypertension Awareness

Nearly one-third of respondents have had a medical professional tell them that they have high-blood pressure, and 28% of respondents indicated taking medicine "currently" for high blood pressure.

Cholesterol Awareness

Over 70% of the sample has been checked for blood cholesterol (with nearly 57% indicating that they had been checked within the past year).

Diabetes

10% of the sample has been told, at some point, that they have diabetes, and over half had been checked for diabetes or high blood sugar within the previous three years (38.6% indicated that they had not been checked for diabetes within the previous three years). Related, over 13% of the sample had been told by a health professional that they had pre-diabetes or borderline diabetes (81.8% said they had not).

Comparison to 2011 Survey

In 2011, various health "hot topics" were identified. These included: Mental Health Status, Chronic Disease, and Health Care Access. Relative to this, it is important to highlight a few key areas when comparing the 2015 survey to the 2011 survey.

Mental Health Status

Depression

In 2011, over 75% of participants indicated feeling worried, tense, or anxious in the previous 30 days upon taking the survey. In 2015, less than 50% indicated feeling worried, tense, or anxious "some", "most", or "all" of the time in the previous 30 days.

Support and Satisfaction

In 2011, 77.1% of respondents indicated that they "Usually" or "Always" get the social and emotional support they need. This value was 74% for 2015.

In 2011, 86.1% of respondents indicated that they are "Satisfied" or "Very Satisfied" with their life. In 2015, the value was 89.6%.

Chronic Diseases

Diabetes

In 2011, approximately half of Grant County adults had undertaken a test for high blood sugar or diabetes within the previous three years of taking the survey. In 2015, this figure was 53.4% (or over half).

Furthermore, approximately 13% of Grant County adults have been told that they have diabetes, with approximately 5% of those individuals currently taking insulin. In 2015, this figure was only 10% (suggesting a potential decrease), with 10.1% of those individuals currently taking insulin.

Blood Pressure

In 2011, 38.2% of respondents indicated that they had been advised at some point by a doctor that they had high blood pressure. Comparatively, in 2015, only 31.1% of respondents indicated that they had been advised at some point by a doctor that they had high blood pressure.

Health Care Access

In 2011, approximately 15% of Grant County residents indicated that they did not have health care coverage, including health insurance, prepaid plans, and government plans. In 2015, the figure was approximately 3% (suggesting a significant decrease). However, in 2015, when asked "In the past 12 months was there any time when you did not have any health insurance or coverage?" 7.6% of the sample answered "Yes." Moreover, in 2015, only 8% of the sample indicated that they had not visited a doctor, nurse, or health professional within the previous 12 months.

Substance Use

In 2011, approximately 85% of respondents indicated that they had never used "chewing tobacco, snuff, or snus." In 2015, that figure was 94.9%.

As it relates to smoking, in 2011 participants were asked: "During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?" That same year, approximately 18% said "yes" and 74% said "no." In 2015, when asked the same question, approximately 3% said "yes" and 8% said "no." However, in 2015, respondents also had the opportunity to indicate that they did not smoke, which constituted about half of the respondents. Moreover, many respondents did not answer (presumably implying that they also did not smoke—although this cannot be confirmed).

In 2011, participants were asked: "Do you smoke cigarettes or e-cigarettes every day, some days, or not at all?" That same year, approximately 17% (or 1 out of every 6) said "every day"; 3.7% said "some days"; and approximately 71% said "not at all." In 2015, 6.8% (or less than 1 out of 10) said "every day"; 2.2% said "some days"; and approximately 88% said "not at all."

In 2011, approximately 61% of participants indicated that they had "never" tried marijuana in their lifetime. In 2015, the same figure was approximately 83%.

II.   Survey Methodology and Considerations

Survey techniques reflect the collection of "primary" data. While valuable in itself, there are an array of ways to bias the output that need to be considered when reflecting upon the data analysis (and, particularly, before drawing conclusions). The following are a few of the more salient areas that need to be considered as it relates to the survey methodology.

a. Sampling Techniques. The sample was collected by Indiana Wesleyan students in two different manners: paper surveys and electronic surveys.
b. Sampling was said to occur in "high traffic areas." Of question is whether or not the sampling would have captured a wide swath of Grant County residents. More specifically, a researcher would ask: "Was the collection of data 'random'?" If not, this risks undercoverage (leaving out a distinct sector of the population) or a potential selection bias (surveying individuals who might be more likely to self-select into a survey instrument by virtue of where, when, and how the survey is provided.
c. Missing Data:

    a) Many respondents did not answer every question. In some cases, this was because the question did not apply (e.g., question about diabetes treatment for respondent who does not have diabetes). However, in other instances, questions such as "Do you ever feel bad or guilty about your illegal drug use?" should have been answered by everyone but was not.

    b) The issue with missing data is whether the absence of the data is random (respondent randomly decided not to answer or the question was N/A) or whether the absence is correlated with another feature (eg, education). In many cases, the issue likely related to how the respondent interpreted the question. For example, would a respondent not answer a question about diabetes because it is not relevant to them, or because of some other, unknown, reason?

    c) There are three primary reasons that data is missing: conditional randomness, complete randomness, and bias, or systematic reasons.[2] It has been noted that most studies that involving data that is missing make the assumption of MAR, or data that is "missing at random." Here the "missing-ness" is explained by another variable, such as gender or age.   For example, if someone does not answer the question: "Have you ever had a breast exam?"—it is because they are not a female, etc.

    d) Similar to MAR is MCAR, or data that is "Missing Completely at Random." Here, MCAR assumes that missing data is independent, or not related to,

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[2] Buhi, Eric R., Patricia Goodson, and Torsten B. Neilands. "Out of Sight, Not Out of Mind: Strategies for Handling Missing Data." *American Journal of Health* 32.1 (2008): 83-92. Print.

observed or unobserved variables. For example, we might say that the variable "Education" is MCAR if the people who do not report their education level are the same, on average, as the people who do report their education level.

e) Point to be made: the analysis of this report rests upon MAR or MCAR assumptions, which may or may not be entirely accurate. If these assumptions are violated, it could potentially call analysis interpretation into question.

Final Note on Methodology:

While the aforementioned factors are important when considering the survey output and its interpretation, most of the analysis arising from the study are of a "descriptive" nature and are only considered "inferential" insofar as the data points to the larger Grant County Population. Every mean will have an accompanying standard deviation, and thus a margin of error when considering what the "real" mean of the county population is. For example, if 80% of the county survey sample indicates that they do not currently smoke cigarettes, there is some wider margin of error interval that the "real mean" likely rests inside. If the sample is large enough (e.g., n>400), the margin of error should be relatively low (3% or less). Statistical testing on the exact margin of error was not analyzed for this particular report.