

Physical and Mental Health Conditions in Five Plain Communities

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Presentation



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Abstract

Physical and Mental Health Conditions in Six Plain Communities

Health needs assessments are important tools for identifying needs, allocating resources, and recognizing inequalities, but needs assessments of entire communities or large geographic areas conducted by local hospitals can miss groups typically not captured by traditional survey methods such as the Amish and other Old-Order Plain groups. This presentation is designed to provide an understanding of the current health and health needs of Plain communities. This research also discusses how Plain communities' perceptions of modern medicine and technology may be affecting the Plain way of life.

The Center for Opinion Research at Franklin & Marshall College, in collaboration with the Strasburg, PA Clinic for Special Children, designed a survey that assessed the health needs of adult Old Order Amish and Old Order Mennonite individuals (18 years of age and older) living in Lancaster County, Somerset County, and Mifflin County, Pennsylvania. Households included in the survey were sampled from the church directories of each settlement. Mail survey materials and follow-up contacts were administered from August 2014 through May 2015. The survey consisted of 50 questions covering a range of topics including current health status, health conditions, nutrition, environmental indicators, social support, physical and mental health status, views on fatalism and genetic testing, access to and use of healthcare, and oral health.

The survey found significant differences between Old-Order groups in terms of their background characteristics (e.g., farm residency, age of housing stock, family size, raw milk consumption) as well as their health behaviors and conditions. The survey also found that Old-Order groups have fewer physical and mental health conditions than the general public (although rates for each group vary). The survey also found support for spousal and fetal genetic testing among Old-Order groups, although support for fetal genetic testing is somewhat lower than for spousal testing and support varies by Old-Order group. Fatalism is evidently not strongly related to attitudes toward genetic testing.

Physical and Mental Health Conditions in Five Plain Communities

Purpose

This presentation is designed to provide an understanding of the current health and health needs of five Plain communities, and to describe differences and similarities between settlements. This research also presents information about how Plain communities' perceptions and use of modern medicine and technology may be affecting the Plain way of life.

Methodology

The Center for Opinion Research at Franklin & Marshall College in collaboration with the Clinic for Special Children designed a survey that assessed the health needs of adult Old Order Amish and Old Order Mennonite individuals (18 years of age and older) living in Lancaster County, Somerset County, and Mifflin County, Pennsylvania between August 2014 and May 2015. The surveys were distributed via mail, in a paper-booklet format, and included an introduction letter and a pre-addressed, pre-paid return envelope. The survey consisted of 50 questions covering a range of topics including current health status, health conditions, nutrition, environmental indicators, social support, physical and mental health status, views on fatalism and genetic testing, access to and use of healthcare, and oral health.

Table 1. Mailed and Returned Surveys by Settlement

	Lancaster Amish	Groffdale Mennonite	Weaverland Mennonite	Somerset Amish	Old Order Amish (Mifflin County)	Nebraska Amish (Mifflin County)	Total
Mailed Surveys	458	149	114	183	292	197	1393
Returned Surveys	221	94	68	151	115	36	685
Response Rate	48%	63%	60%	83%	39%	18%	49%

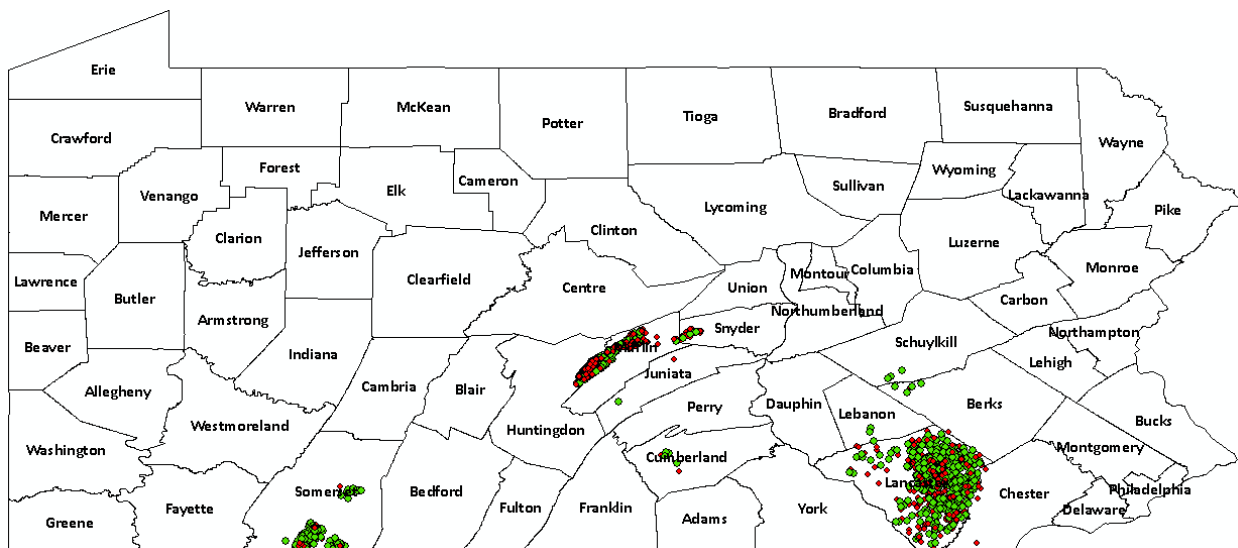


Figure 1. Map of Survey Sample and Response. The map above shows location of the sample for the survey; green dots represent completed surveys, and red dots represent sample that did not respond to the survey.

Amish and Mennonites

Amish and Mennonites groups seeking religious freedom migrated to the United States beginning in the 1700's (Amish Origins, 2014; Klimuska, 1998, p. 42). While the Amish and Mennonites share a common European origin and Anabaptist heritage, the two exist as distinct groups, although they inhabit many of the same geographic regions (Amish Origins, 2014).

Mennonites in Lancaster County are a more diverse group than the Amish. Most are assimilated with the general population. Several Old Order Mennonite groups emerged in Lancaster County from disagreements over assimilation, the use of technology, higher education, and language. The Groffdale Conference Mennonites, or Wenger Mennonites, travel by horse and buggy, allow electricity and telephones into homes but no television, meet in church meeting houses rather than individual homes, and educate only through the 8th grade (Horse-and-Buggy Mennonites; Concise Encyclopedia). Weaverland Conference Old Order Mennonites split from the Groffdale Conference in 1927 over the use of automobiles. These three groups all identify as Old Order and because the members of these communities eschew many of the trappings of modern life they call themselves "plain."

Demographic Characteristics by Settlement

The five settlements differ on four of the five measured background characteristics: farm residency, average number of children, age of home, and sources of drinking water. Nearly nine in ten Somerset county Amish live on a farm, about half of the Lancaster Amish and Groffdale Mennonites live on a farm, but only about one in three Weaverland Mennonites does. Groffdale Mennonites tend to have fewer children than the other Amish and Mennonite groups. Somerset County Amish tend to have older homes. Most residents in every settlement get their drinking water from private wells, although the Mifflin County Amish are more likely to receive their water from a city water supply.

Table 2. Demographic Characteristics by Settlement

	Settlement					General Pop. PA
	Lancaster Amish	Groffdale Mennonite	Weaverland Mennonite	Mifflin County Amish	Somerset County Amish	
Currently lives on a farm*	52%	47%	29%	45%	87%	
Average age of respondent	46.0	47.1	50.0	46.3	44.8	
Average number of children*	5.1	3.9	4.7	5.2	5.1	
When was your home built? *						
Before 1975 ^a	49%	60%	55%	50%	71%	72%
Between 1975-1990 ^b	14%	14%	27%	17%	12%	10%
After 1990 ^c	29%	19%	16%	25%	14%	18%
Do not know	8%	7%	1%	8%	4%	---
Where does your drinking water at home come from? ^d						
Private well	95%	96%	92%	87%	100%	20%
Buy from store	3%	1%	2%	0%	0%	2%
City water supply	1%	3%	6%	12%	0%	78%
Do not know	0%	0%	0%	1%	0%	---

*Significant differences between settlements

a. Data for General Pop PA comes from the American Community Survey, 2010-2014 Estimates; data is "Houses built before 1979"

b. Data for General Pop PA comes from the American Community Survey, 2010-2014 Estimates; data is "Houses built between 1980-1989"

c. Data for General Pop PA comes from the American Community Survey, 2010-2014 Estimates; data is "Houses built 1990 or after"

d. Data for General Pop PA comes from the Historical Census of Housing Tables (U.S. Census), 1990 Estimates

Health Care and the Amish

Health care use varies greatly across the Old Order communities. While some groups are comfortable with modern medical practice and the services it offers, other groups, only use modern medicine in emergencies. Within the Plain community, the decision to seek out medical treatment is left up to the individual and the family. The extended family, family traditions, and members of the church community

often influence an individual’s decision to obtain medical treatment (Kraybill, Johnson-Weiner, & Nolt, 2013, p. 337).

According to Kraybill et al. (2013), the Amish community uses resources from four systems of health care: folk, alternative, standard, and church-community (Kraybill et al., 2013, p. 339). While all Plain members use standard health care resources when necessary, many are less likely to use them than their English counterparts. A lack of trust towards modern medicine and doctors, impersonal patient-doctor relationships, as well as high-tech equipment used in a majority of health care settings, dissuades many members of the Plain community from seeing a doctor on a regular basis. Consequently, many Plain members frequently use folk or alternative treatments, such as home remedies and herbal supplements, before seeking treatment from a medical doctor (Kraybill et al., 2013, p. 337). While the Plain community will seek medical treatment when necessary, they often will not employ extraordinary measures because they believe it to obstruct God’s will (Kraybill et al., 2013, p. 337).

The vast majority of Amish and Mennonite community members do not carry commercial health insurance and they reject government aid due to their religious beliefs. Instead, individuals pay cash out of pocket and as a result often pay for health services at a reduced price. Mutual aid programs have been established among the various communities, which help pay for costly medical bills if needed.

Wellness Behaviors

Members of these Amish and Mennonite settlements tend to infrequently use preventive health services, although majorities in every settlement but Mifflin County report having a regular health care provider. Residents of every settlement are less likely than the general population to have had an annual physical exam. The Mifflin County Amish are much less likely than residents of other settlements to have received health services in the past year. Diet and BMI differ by settlement. Mifflin County Amish are least likely to eat a daily serving of fruits and vegetables. The Lancaster Amish are least likely to be overweight or obese and appear to have rates of overweight and obesity that are below the rates for the Lancaster County population.

Table 3. Wellness Behaviors by Settlement

	Settlement					General Pop. PA
	Lancaster Amish	Groffdale Mennonite	Weaverland Mennonite	Mifflin County Amish	Somerset County Amish	
In a typical WEEK, how often do you eat/drink (% responding “daily” and “more than once a day”)						
Raw Milk (milk that has never been pasteurized)*	71%	71%	43%	74%	90%	
Fruit (not counting juice)*	63%	80%	72%	38%	80%	
Vegetables (not counting carrots, potatoes, or salad)*	55%	82%	68%	31%	71%	
Green Salad*	26%	6%	6%	9%	16%	
Consume at Least Five Servings of Fruits and/or Vegetables Every Day ^a						15%
Consume Two or More Fruits and/or Drinks of 100 Percent Fruit Juice per Day ^a						31%
Has a regular doctor or other health professional to go to when sick or want medical advice*	74%	93%	99%	40%	58%	85%
Received the following health services in the past 12 months						
Blood pressure check*	43%	54%	72%	30%	46%	
Dental exam*	39%	65%	76%	5%	15%	67%
A regular physical checkup*	20%	31%	43%	15%	16%	
Blood cholesterol test*	18%	19%	37%	11%	24%	
Test for diabetes*	12%	21%	28%	8%	16%	
Pap smear or pap test*	7%	16%	21%	2%	3%	
Physical breast exam by a healthcare professional*	7%	11%	24%	2%	3%	
Physical breast exam by a healthcare professional (age GE 40)	9%	10%	32%	3%	5%	56%
A pelvic exam*	4%	14%	12%	2%	4%	
Flu shot*	3%	11%	25%	2%	0%	
Flu shot (age GE 50)	5%	17%	38%	6%	0%	49%
Prostate exam or PSA test	3%	2%	3%	1%	5%	
Prostate exam or PSA test (age GE 50)	6%	6%	5%	4%	13%	60%
Mammogram*	2%	8%	19%	0%	1%	
Mammogram (age GE 40)	3%	11%	24%	0%	0%	57%
BMI Weight Category*						
Underweight	1%	5%	0%	1%	2%	
Normal weight	49%	38%	31%	37%	27%	
Overweight	33%	39%	39%	36%	42%	34%
Obese	17%	19%	30%	25%	29%	30%

*Significant differences between settlements

Note: Data for General Pop. PA comes from the PA Department of Health’s Enterprise Data Dissemination Informatics Exchange (EDDIE) data retrieval system; data from year 2014, unless otherwise noted

a. Data from year 2013

Health Conditions by Settlement

The Amish and Mennonites tend to report fewer health conditions than the general population. Notably, asthma rates are significantly lower in all settlements than the rate for the general population. Significantly more Weaverland Mennonites have high cholesterol, high blood pressure, cancer, a UTI/kidney/bladder infection, and diabetes. Significantly more Groffdale Mennonites have been diagnosed with an anxiety/depression/bipolar disorder, making their rate similar to the rate in Lancaster County.

Table 4. Health Conditions by Settlement

	Settlement					General Pop. PA
	Lancaster Amish	Groffdale Mennonite	Weaverland Mennonite	Mifflin County Amish	Somerset County Amish	
Has been diagnosed with asthma by a physician or other healthcare provider	6%	3%	6%	6%	5%	14%
Has a doctor or other health care professional EVER told you that you have any of the following health conditions? (% Responding "Yes")						
Anemia, low blood count, or low iron	21%	30%	35%	18%	26%	
Vaginal yeast infection	18%	22%	27%	12%	20%	
High cholesterol*	17%	22%	30%	9%	17%	39% ^a
Thyroid problems	16%	10%	14%	13%	12%	
Arthritis or rheumatoid arthritis	14%	16%	18%	14%	11%	30%
Obesity or overweight	14%	10%	18%	7%	12%	
Urinary tract infection, kidney infection, or bladder infection*	13%	20%	33%	16%	22%	
Anxiety, depression, or bipolar disorder*	8%	21%	12%	10%	6%	20% ^b
Hypertension or high blood pressure*	6%	22%	28%	10%	16%	34% ^c
Blood clot	5%	11%	3%	7%	5%	
Complications during pregnancy	5%	6%	8%	3%	8%	
Coronary artery disease, heart attack, or chest pain (angina)	4%	3%	9%	3%	6%	
Coronary artery disease, heart attack, or chest pain (angina) (age GE 35)	4%	18%	8%	21%	9%	13% ^d
Chronic obstructive pulmonary disease, chronic bronchitis, or emphysema	3%	0%	3%	1%	3%	7%
Cancer (if yes, please specify the type of cancer)*	2%	7%	12%	1%	5%	13% ^e
Diabetes (other than during pregnancy)*	2%	3%	12%	4%	2%	11%
Endometriosis	1%	6%	3%	2%	2%	
Herpes	1%	1%	2%	1%	1%	
Epilepsy or seizure disorder	1%	0%	3%	1%	0%	
Bacterial vaginosis	0%	3%	3%	1%	0%	
A stroke	0%	2%	2%	4%	2%	
A stroke (age GE 35)	1%	3%	2%	5%	3%	4%
Cervical cancer or precancerous cervix	0%	1%	0%	0%	1%	
Pelvic inflammatory disease	0%	1%	0%	0%	0%	

*Significant differences between settlements

Note: Data for General Pop. PA comes from the PA Dept. of Health's Enterprise Data Dissemination Informatics Exchange (EDDIE) data retrieval system; data from year 2014, unless otherwise noted

a. Data from year 2013; indicator wording: "Ever Told Blood Cholesterol is High (Out of Adults Who Ever Had Blood Cholesterol Checked)"

b. Indicator wording: "Ever Told They Have a Depressive Disorder Including Depression, Major Depression, Minor Depression or Dysthymia"

c. Data from year 2013

d. Indicator wording: "Ever Told They Had a Heart Attack and Ever Told They Have Heart Disease"; Age GE 35

e. Indicator wording: "Ever Told They Had Skin Cancer and Ever Told They Had Any Other Types of Cancer"

Mental Health

Few Amish or Mennonites report poor mental health. Few individuals in any settlement have depressive symptoms, and only 1% of adults are currently depressed although Somerset County Amish are more likely to be currently depressed. The rates of poor mental health days are much lower than the rate reported by Pennsylvania adults (35%).

The Groffdale Mennonites are most likely to be receiving treatment for a mental or emotional problem. The Somerset and Mifflin County Amish populations are least likely to seek medical attention for a mental health problem.

Table 5. Mental Health

	Settlement					General Pop. PA
	Lancaster Amish	Groffdale Mennonite	Weaverland Mennonite	Mifflin County Amish	Somerset County Amish	
Fair or Poor General Health	13%	10%	6%	15%	21%	17%
Rarely or Never Get the Social and Emotional Support They Need ^a	5%	3%	5%	5%	1%	8%
Satisfied or Very Satisfied With Their Life ^a	80%	86%	94%	81%	65%	94%
PHQ-8 Depression Scale Symptom Category						
No symptoms*	91%	86%	89%	85%	75%	
Mild symptoms*	8%	13%	11%	13%	19%	
Moderate symptoms	0%	1%	0%	2%	4%	
Moderately severe symptoms	0%	0%	0%	0%	1%	
Severe symptoms	0%	0%	0%	0%	0%	
PHQ-8 Currently Depressed	1%	1%	0%	1%	4%	
Is taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem*	7%	20%	10%	6%	2%	
One or more poor mental health days	10%	18%	12%	12%	15%	35%
If you felt that you had a mental problem, how likely would you be to go to a doctor for help?*						
Very Likely	22%	33%	38%	20%	13%	
Likely	36%	46%	44%	38%	25%	
Neutral	28%	16%	11%	21%	32%	
Unlikely	11%	1%	6%	15%	19%	
Very Unlikely	3%	3%	0%	7%	11%	

*Significant differences between settlements

Note: Data for General Pop. PA comes from the PA Dept. of Health's Enterprise Data Dissemination Informatics Exchange (EDDIE) data retrieval system; data from year 2014, unless otherwise noted

a. Data from year 2010

Genetic Testing

Views on genetic testing were significantly different between settlements. The Somerset County Amish population is virtually unanimous in the desire to have their spouse tested for genetic disease, while in the Mifflin County Amish population only three in four would want their spouse to be tested. The Lancaster Amish and Mennonite populations are most similar in their views on spousal genetic testing.

Fewer individuals are in favor of genetic testing when applied to their children. Again, there are significant differences between settlements. The Lancaster Old Order Mennonite populations are most likely to want their unborn child tested. The Mifflin County Amish population is least likely to want their child tested, with only about one in four responding "yes."

Most Weaverland Mennonites say that their baby had a newborn screening test, compared to about one in three Mifflin County Amish. Three out of four Groffdale Mennonites say that their baby had a newborn screening test, and only about two out of three Somerset County and Lancaster Amish agree.

Table 6. Genetic Testing

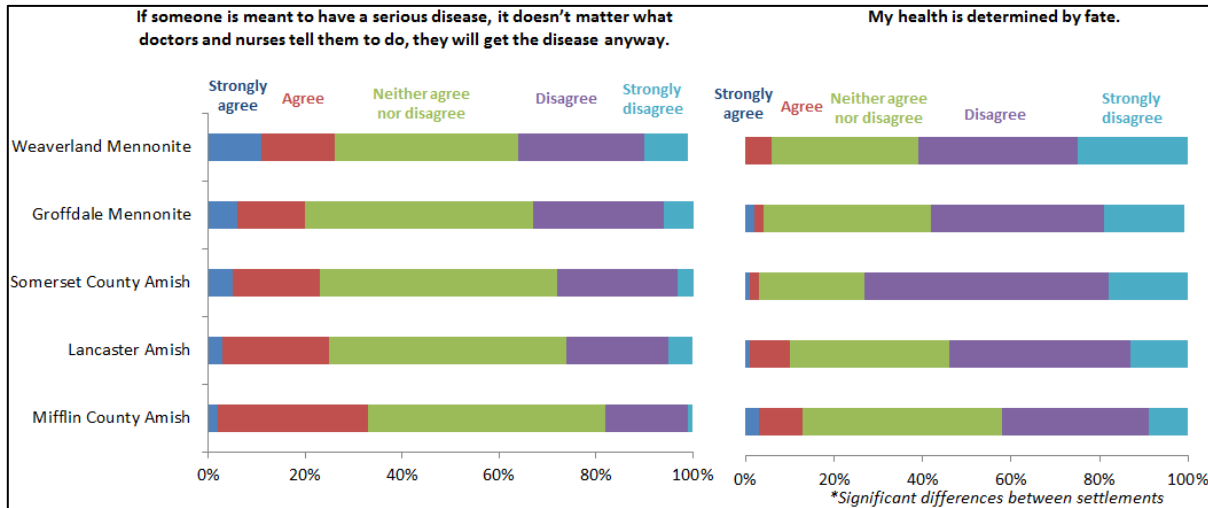
	Settlement				
	Lancaster Amish	Groffdale Mennonite	Weaverland Mennonite	Mifflin County Amish	Somerset County Amish
If you found out that you were a carrier for a genetic disease, would you want your spouse to be tested for it?*	85%	88%	90%	71%	95%
Would you want to know if your child was going to be affected with a particular genetic disease before he or she was born if a test that could tell you this?*	46%	56%	65%	27%	47%
After your baby was born, did he or she receive a newborn screening test?*	65%	75%	88%	31%	65%

*Significant differences between settlements

Fatalism

Views about fatalism are generally consistent between settlements. The Weaverland Mennonite population is most likely to disagree that their health is influenced more by fate than by what doctors and nurses instruct, while the Mifflin County Amish population is least likely to disagree. All settlements display a lack of certainty on the issue, with nearly half responding in the neutral category.

The Mifflin County Amish and the Somerset County Amish have significantly different views on whether or not they agree that their health is determined by fate. Nearly three out of four Somerset County Amish disagree that their health is determined by fate, while only about two in five Mifflin County Amish disagree. The Lancaster Old Order Amish and Mennonite populations have the most similar views on their health and fate. The correlation between the two fatalism questions is 0.35.



Genetic Testing and Fatalism

Most say they want their spouse tested for a genetic disease regardless of their views on fatalism, the same pattern is not apparent when asked about testing their child for a genetic disease. Those who are less fatalistic are more likely to want their child tested for genetic disease.

Do you agree or disagree with the following statement...If someone is meant to have a serious disease, it doesn't matter what doctors and nurses tell them to do, they will get the disease anyway.

		Agree	Neutral	Disagree
If you found out that you were a carrier for a genetic disease, would you want your spouse to be tested for it?	Yes	82%	90%	84%
	No	18%	10%	16%
Would you want to know if your child was going to be affected with a particular genetic disease before he or she was born if a test could tell you this?	Yes	39%	44%	58%
	No	61%	56%	42%

There are no differences in the desire for spousal or fetal genetic testing associated with how much a respondent believes his or her health is determined by fate.

Do you agree or disagree with the following statement...My health is determined by fate.

		Agree	Neutral	Disagree
If you found out that you were a carrier for a genetic disease, would you want your spouse to be tested for it?	Yes	81%	86%	87%
	No	19%	14%	13%
Would you want to know if your child was going to be affected with a particular genetic disease before he or she was born if a test could tell you this?	Yes	46%	45%	52%
	No	54%	55%	48%

Genetic Testing and Fatalism by Clinic Affiliation

One in ten (9%) respondents have someone in their family that is a patient of the Clinic for Special Children. These respondents do not differ significantly on their fatalism responses or on their desire for genetic testing.

		Is anyone in your family a patient of the Clinic for Special Children?	
		Yes	No
Fatalism			
Do you agree or disagree with the following statement...If someone is meant to have a serious disease, it doesn't matter what doctors and nurses tell them to do, they will get the disease anyway.	Strongly agree	4%	5%
	Agree	27%	21%
	Neither agree nor disagree	43%	47%
	Disagree	18%	23%
	Strongly disagree	8%	4%
Do you agree or disagree with the following statement...My health is determined by fate.	Strongly agree	2%	1%
	Agree	12%	5%
	Neither agree nor disagree	49%	33%
	Disagree	29%	44%
	Strongly disagree	8%	17%
Genetic Testing			
If you found out that you were a carrier for a genetic disease, would you want your spouse to be tested for it?	Yes	75%	87%
	No	25%	13%
Would you want to know if your child was going to be affected with a particular genetic disease before he or she was born if a test could tell you this?	Yes	44%	46%
	No	56%	54%

Conclusions

There are significant differences between Old-Order groups in terms of their background characteristics (e.g., farm residency, age of housing stock, family size, raw milk consumption) as well as their health behaviors and conditions. It is misleading to characterize all Old-Order groups as the same.

Old-Order groups rarely use preventive health services, although the rates vary by group. Do low rates of preventive health services produce any negative burdens or positive benefits for these groups?

Old-Order groups seem to have fewer physical and mental health conditions than the general public (although rates for each group vary). Is this a result of less health care access and use or do the Old-Order groups have lower rates for some conditions as has been documented with asthma?

Indicators for depressive symptoms suggest relatively low rates of depression in these groups. Does Old-Order culture support positive mental well-being?

Most Old-Order groups do not show significantly lower BMIs. Why isn't the Old-Order lifestyle protective?

The very high response rate shows that this relatively inexpensive survey method, along with the imprimatur of the Clinic for Special Children, is a useful and accurate way to gather information from Plain communities.

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