



Survey of the Health of All the Population and the Environment Adult Survey



The 2014 Metro Adult Survey of the Health of All the Population and the Environment, or Metro SHAPE 2014, is the latest implementation in a nationally-recognized series of surveys collecting information on the health of residents living in the seven-county area around Minneapolis and Saint Paul, Minnesota and the factors that affect their health across a broad range of topics.

History

SHAPE, a public health surveillance project, was initiated by Hennepin County in 1998, and has repeated the effort every four years since, including data collection iterations in 2002, 2006 and 2010. A primary reason for conducting the SHAPE survey was to provide data on the health status and the factors that affect health for adults in Hennepin County, for use in planning, programming and policy development in a range of government, community and health organizations. A second goal was to provide baseline data for Hennepin County to help measure changes in health indicators and status over time.

Each administration of SHAPE, implemented via Hennepin County Public Health Department, has had its own focus and project collaborators. A variety of survey modes have been employed to obtain survey response over the years including telephone only in 1998, telephone and in-person interviews in 2002, mail only in 2010 and for the first time in 2014, an online option in addition to mail was offered. The Metro SHAPE 2014 project represents the 5th SHAPE iteration, which for the first time involved seven other local public health agencies in the Twin Cities metro region.

The Metro SHAPE 2014 Survey collected information on the following health domains and topics

Questionnaire Domain	Topic areas
Health status and health related quality of life	Overall health status; chronic disease and conditions weight status; disability; mental health; serious psychological distress
Healthcare access and utilization	Insurance coverage; unmet health care needs; use of prescription medications, difficulty in filling prescriptions; usual source and place of care; preventive screenings; discussion and advice on lifestyle from provider
Lifestyle and risk behaviors	Cigarette and other tobacco use; environmental tobacco smoke; alcohol use; physical activity and screen time; dietary behavior and beverage use
Social and environmental factors	Social connectedness and community involvement; neighborhood safety and walkability; neighborhood cohesion; discrimination, food and housing security
Demographic factors	Age; gender; race and ethnicity; household income; education and employment status; LGBT status; years living in the U.S.A.

Methodology

SHAPE 2014 collected information on adults by means of a mixed-mode on-line and mail survey sent to randomly selected households in six counties in the Twin Cities metro area. The on-line component was developed using Qualtrics. The Hennepin County Public Health Department oversaw the data collection effort, which was supported by a contracted vendor, Wilder Research.

The households included in the Metro SHAPE 2014 survey came from a sample of addresses in the U.S. Postal Services' Delivery Sequence File (DSF). Each of the addresses was coded as to which one of the seventeen primary geographic sampling areas. In Hennepin County, there were eleven sampling areas, four Minneapolis, seven in suburban Hennepin County, including the city of Bloomington (**Figure 1**).

Within each of the primary geographic sampling areas, some smaller areas were oversampled to increase the probability that residents of sub-populations of special interest (e.g., Hispanics/Latinos, Hmong, Somalis, U.S.-born Blacks, low-income households, etc.) were included. Within a household, one random adult was selected to participate in the survey.

Figure 1: Metro SHAPE 2014 Survey Reporting Areas-Hennepin County

- 1) **Mailing 1** – a postcard notifying the people in the household that they were selected to participate.
- 2) **Mailing 2** – a letter describing the project and instructing the adult living there with the next birthday to take the survey on-line using the included ID and password.
- 3) **Mailing 3** – a postcard thanking the households who had already completed the survey and asking those who had not completed the survey to do so.
- 4) **Mailing 4** – a letter describing the project and instructing the adult with the next birthday to take the survey on-line using the included ID and password.
- 5) **Mailing 5** – a letter offering the persons at the household the option of taking the survey using the enclosed written version along with a postage-paid return envelope.
- 6) **Mailing 6** – to households in selected geographic areas within Hennepin County, a postcard with a photo and testimonial of a manager of a community clinic in those areas urging people to complete and return the survey.
- 7) **Mailing 7** – to households in selected geographic areas with low response rates, a letter offering the persons at the household the option of taking the survey using the enclosed written version along with a postage-paid return envelope.

Efforts to Reach Hard to Reach Populations

The Metro SHAPE 2014 survey identified several strategies to attempt to reach hard-to-reach populations, which were included at both sampling design and survey implementation phases of the survey. With the sample design, sampling census tracts with high concentrations of people of color and low-income households at higher rates gave households in those tracts a greater chance of being selected for survey participation. During survey implementation – four strategies were used to encourage respondents with limited English proficiency.

- 1) First an FAQ sheet was included in the mailed materials, using ten languages other than English, notifying respondents of the presence of a language assistance line.
- 2) Second, the language assistance line was prepared to direct respondents to resources to translate materials verbally or in writing for each of the ten available languages, per request.

- 3) Third, directions on how to get assistance in those same ten languages was listed on the home page of the *Metro SHAPE 2014* website.
- 4) Finally, persons respected in local non-English speaking communities made short videos encouraging persons to complete and return the Metro SHAPE surveys. The videos were in the speaker's native language and were available on the *Metro SHAPE 2014* website.

Census tracts with low response were identified and outreach efforts including: poster distribution to clinics, community organizations and faith based organizations, postcards using a local community clinic manager mailed to households, and a 7th mailing to encourage survey completion were made to engage residents and encourage them to respond to the survey.

Results

While a total of 12,794 surveys were completed, some surveys were excluded due to missing data and duplicate responses from the same households. Surveys completed by young adults age 18 to 24 were dropped due to a very low response among that age group. This results in a final Metro SHAPE sample of 12,028 respondents for reporting. In Hennepin County, 8,578 respondents, 25 and older are in the final sample for reporting. Overall, for Metro SHAPE 2014, the response rate was 22%.

The results from Metro SHAPE 2014 are available for Hennepin County as a whole, by 11 geographic reporting areas, in addition to being available by gender, age, and household income. The full data book, which details out survey methodology, how to read the data tables and includes the full survey questionnaire, can be accessed at www.hennepin.us/SHAPE.

An additional Hennepin County data book has been completed focused on disparities. This data book presents Hennepin County data by age, gender, education level, income, frequent mental distress, disability status, and LGBT status. This data book can be accessed at www.hennepin.us/SHAPE.

Limitations

The results from Metro SHAPE 2014 are subject to various limitations such as self-selection bias, low response rate, non-response bias, under-representation from non-English speaking residents, recall bias as the survey is self-report, and an inability to generalize results to residents who do not reside in a residential address, such as persons living in institutions, nursing homes, correctional institutions and persons who are homeless.

Further Information

For more information about Metro SHAPE 2014 see www.hennepin.us/SHAPE, contact SHAPE@hennepin.us or call 612-348-6150.