

## The Big Squeeze: Putting the Squeeze on High Blood Pressure

### Challenge

High blood pressure, or hypertension, is called the silent killer because it usually has no symptoms, and increases a person's risk for heart attack and stroke.

According to the American Heart Association, 69% of people who have a first heart attack, 77% of people who have a first stroke and 74% of people with chronic heart failure have high blood pressure.

About one in three adults in the U.S. has high blood pressure, and residents of Sioux Falls are not immune from the risk.

According to the 2009 Behavioral Risk Factor Surveillance System (BRFSS) data, the number of people living in Sioux Falls that have been told they have high blood pressure had been on the rise since 2003.

Because high blood pressure is related to so many serious - and costly - health conditions, a group of health professionals asked the question, "What can we do?"

### Solution

Community partners - including American Heart Association, Avera Health, City of Sioux Falls, DAKOTACARE, Lewis Drug, Novartis, Sanford Health, Sioux Falls Fire Rescue and Walgreens - developed the concept of a month-long initiative to focus on performing blood pressure screenings and delivering education to Sioux Falls residents. Since the project's inception in 2011, The Big Squeeze has expanded from screenings at local drugstores to include screening locations at churches, fire stations, dental offices, community centers and work sites.

Each partner in The Big Squeeze has offered innovative ideas about where to offer screenings, how to promote the program, how to engage employers and what data to collect.

### Summary

What makes The Big Squeeze a successful health initiative is the commitment and contributions from the community partners.

There has been tremendous growth in the number of sites offering screenings, due in large part to the commitment of both health care organizations and employers in the Sioux Falls community. In 2013, screenings took place at 70 locations. In 2014, nearly 120 locations held blood pressure screenings.

Being able to include clinic data from Avera Health and Sanford Health will offer a unique opportunity to look at prevalence of hypertension on a larger scale and to compare results from community-based screenings to those collected in the clinical setting.

### New in 2014

An added component to the 2014 project was a **pilot project to measure waist circumference**. Where we carry our weight can impact our health. Research has shown that having extra inches around the midsection can increase risk for high blood pressure and other cardiovascular disease, as well as risk for diabetes.

Through employer outreach conducted by Avera and Sanford, 1160 individuals participated in the pilot: 530 women and 630 men. A "normal" waist measurement for this study, based on CDC, was less than 35 inches for women and less than 40 inches for men. Of the 177 women with above-normal waist measurements, 60% also had an elevated blood pressure reading. Of the 203 men with an above-normal waist measurement, 93% also had an elevated blood pressure reading. Based on these pilot project results, **it appears that if you have an above-normal waist circumference, you increase your risk for elevated blood pressure.**



## Results

The reach of The Big Squeeze has increased each year: 2,500 residents in 2011, 5,350 in 2012 and 7,944 in 2013. For the 2014 project, which took place in April, 8,621 residents were screened through community-based events, and another 63,000 individuals were screened at an Avera or Sanford primary care clinic.

Of those participating in the community-based screenings, only 35% had a normal blood pressure reading. 45% were in the "at risk" category, meaning 20% had a blood pressure reading greater than 140 over 90. And of those with the high readings, over one-third were unaware that they had high blood pressure. People at risk were encouraged to follow up with their health care provider. That is why awareness projects such as The Big Squeeze are so important.



Preventive services, such as routine disease screenings, are at the forefront to reducing death and disability and improving community health by detecting medical conditions at more treatable stages. Through Live Well Sioux Falls and The Big Squeeze, we are educating the residents of Sioux Falls on how to live a healthier lifestyle.

Dr. Paul Amundson  
Chief Medical Officer  
DAKOTACARE



Source: Happy Healthy U event, Sioux Falls, SD

## Successes

The Big Squeeze has brought health care and community partners together to develop recommendations for blood pressure screenings, including the procedure for taking a proper blood pressure, creation of a training video to teach that process, use of a standardized screening form to track data over time and creation of an easy-to-use toolkit that walks any organization or community through the process of hosting and promoting a blood pressure screening event.

Also key to the success of the effort were volunteer screeners from the faith community in Sioux Falls and students in health-related fields from Augustana College, Globe University, South Dakota State University and the University of Sioux Falls. They were instrumental in helping to manage the requests for on-site screenings from various businesses and organizations.

Moving forward, the committee will start planning for the 2015 Big Squeeze event by recruiting businesses and other organizations to host screenings, both in Sioux Falls and in other communities in the Midwest.

### Resources

[www.thebigsqueezesf.org](http://www.thebigsqueezesf.org)  
[www.goodandhealthysd.org](http://www.goodandhealthysd.org)

### Local Contacts

**Jen Johnson**, Public Health Project Lead  
**Mary Michaels**, Healthy Community Specialist

Live Well Sioux Falls  
Sioux Falls Health Department  
(605) 367-8760  
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### Get Involved!

Individuals can get involved with The Big Squeeze in several ways, including hosting a Big Squeeze screening (download a "how to" toolkit at [www.thebigsqueezesf.org](http://www.thebigsqueezesf.org)) or volunteering to be a screener.

For more information, contact Jen Johnson or Mary Michaels with Live Well Sioux Falls at (605) 367-8760 or [livewell@siouxfalls.org](mailto:livewell@siouxfalls.org).