

# Diabetes in the Trenton Community



## Healthy People 2020:

Reduce the disease and economic burden of diabetes mellitus (DM) and improve the quality of life for all persons who have, or are at risk for, DM.

### The Issue of Diabetes Mellitus

**Diabetes Mellitus (DM)** is a condition where the body cannot produce or respond adequately to the hormone insulin. Insulin absorbs glucose (sugar) as fuel for the body's cells. When the body's insulin production signaling system is impaired, blood glucose levels can reach levels that can cause other metabolic abnormalities to occur. (1)

### Three common types of DM are:

**Type 1 DM:** The body loses its ability to produce insulin.

**Type 2 DM:** Resistance to the action of insulin and insufficient insulin production.

**Gestational DM:** Complication (high glucose abnormality) that arises during pregnancy. (1)

### Why is DM important?

**DM** affects an estimated 23.6 million people in the US and is the 7th leading cause of death. If current trends continue, 1 in 3 adults will have DM by 2050. (2)

**DM** lowers life expectancy by up to 15 years and increases the risk of heart disease by 2 to 4 times.

### Why is DM Important to Urban Health?

In 2010 the total percentage of adults with **DM** was a little over **six percent in the U.S.** and a little over **eight percent in New Jersey.** Comparatively, in 2009, just over **nine percent (seven percent as of 2013) of Mercer County residents** and **16 percent (still current) of Trenton residents** were diabetic. (Figure 1) Along with cardiovascular disease and cancer, diabetes is the most significant chronic disease in Trenton. (4)

Profile Characteristic	Trenton	Mercer
Racial Makeup - African American	52.0%	20.3%
Racial Makeup - Hispanic/Latino	33.7%	15.1%
Unemployment Rate	12.1%	7.6%
Child Poverty Rate	33%	11.9%
No Health Coverage	23%	14%
High School Graduation Rate	76.5%	83%
No Prenatal Care	3.0%	1.3%
Hypertension	31%	27.2%
Diabetes	16%	6.6%
Obesity	39%	19.7%

Source: Trenton Health Team Report, 2013

Age Distribution (Percent)

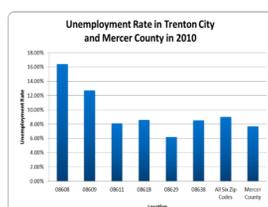
	Under age 18	Ages 18 to 24	Ages 25 to 44	Ages 45 to 64	Ages 65 plus
New Jersey	23.50	8.70	26.70	27.60	13.50
Mercer County	22.60	10.90	26.90	26.90	12.60
Trenton City	25.10	11.00	32.50	22.60	8.80

Source: Trenton Health Team Report, 2013

Racial Composition of Trenton City

Zip Code	Population	Percent Whites	Percent African Americans	Percent Latinos
08608	1,095	30.13	52.14	18.88
08609	15,166	22.78	57.09	20.59
08611	23,868	53.83	20.29	39.15
08618	37,144	25.37	68.48	6.85
08629	11,102	56.43	28.58	18.87
08638	26,120	51.18	39.75	10.87
Total	114,495	39.90%	46.33%	18.54%

Source: Trenton Health Team Report, 2013



Source: Trenton Health Team Report, 2013

### Current strategies to address DM in Trenton The Trenton Health Team and Community Health Needs Assessment

The Trenton Health Team (THT) is a collaboration of St. Francis Medical Center, Capital Health, Henry J. Austin Health Center, and the Department of Health and Human Services. The **THT** has partnered with 29 community and social services agencies across Trenton in the unique development of one comprehensive Community Health Needs Assessment (CHNA) for the entire city.

### What is the THT's vision and strategies?

The THT aims to transform healthcare for the city, through community partnership, in order to provide quality and coordinated care in sustainable ways. The Community Health Improvement Program (CHIPS) encompasses the THT's next steps in producing realistic, measurable goals to address priorities brought to light by the CHNA. The CHNA health priorities will then be assigned to community leaders who will help drive improvement with the guidance of the CHIP Steering Team.

### Henry J. Austin Health Center - Bridging the Gap

So far the CHNA has identified five health priorities that have demanded community-wide attention. Two priorities that were selected for this Bridging the Gaps (BTG) community site's (Henry J. Austin Health Center- HJA) topic were **chronic diseases** and **health literacy and disparities**. However, the focus has been diabetes, a substantial issue overlapping the two priorities.

Using the THT's CHNA 2013 Report for Trenton, NJ, the following factors have been found to be associated with diabetes prevalence in one way or another.

### Income Levels and Poverty

Data from 2010 indicated that 36.3 percent of Trenton's total population lives below 200 percent of the federal poverty line. Inadequate income makes it difficult to receive proper Healthcare, nutritious food, and shelter.

Zip Code	Total Population	Number Living in Poverty	Percent Below Poverty Level
08608	1,095	515	46.72
08609	15,166	4,853	31.78
08611	23,868	5,728	23.95
08618	37,144	9,657	23.22
08629	11,102	1,665	14.58
08638	26,120	4,440	16.63

Source: Trenton Health Team Report, 2013

Sources of Food in Trenton City

	Number of Stores	Percentage of All Available Food Stores
Convenience Stores	78	29
Limited Service Restaurants	136	51
Other Healthy Outlets	12	4
Supermarkets	9	3
Food Pantries	34	13

Source: Trenton Health Team Report, 2013

### Obesity and Lifestyle

The lack of supermarkets and distance to them has also caused Trenton to be a food desert. In 2011, approximately 39 percent of Trenton residents were obese, compared to Mercer County (19.7) and NJ (23.7). There is a strong correlation between obesity and diabetes.

### Safety and Crime

Trenton has the highest crime rates in Mercer County. The stress and restrictive nature of high crime rates dissuades residents from engaging in outdoor exercise.

### Environmental Issues - Transportation

Currently, two major modes of transportation in Trenton are walking and taking the bus. Trenton residents who cannot manage bus fare are discouraged from traveling long distances, which may sometimes be necessary to reach healthy food outlets. In relation to access to healthcare, HJA patients have recently been complaining that transportation has been a barrier.

### Our BTG community intervention through Henry J. Austin

During this seven week internship at HJA, we initiated a Diabetes Health Literacy Project (DHLP). The purpose of this program was to provide health literacy to HJA's diabetic members through simple text messages that would include pictures and links to videos that would make the educational experience more comprehensive.

•We focused on the non-insured patients because this population seemed to be missing a lot of their patient health information (e.g. lab tests, eye exams) on file. Non-insured patients are also supposedly less likely to receive appropriate education concerning their condition due to individual education levels, psychological, and geographic barriers.

•Patients were called and asked to participate in the program and upon acceptance, we enrolled them through an online system. A confirmation text was then sent to the individual through text so that they could complete the application.

•As of July 15, 2014, we have successfully enrolled 26 non-insured patients out of a total of 256 that were reached out to.

Data Summary	
10%	26 Enrolled
8%	21 Declined Enrollment
36%	93 Voicemail
7%	18 Call back at another time
9%	22 Not accepting calls / not in service
7%	17 Error in number / wrong number
21%	55 Spanish Speakers
1%	2 Creole Speakers
0%	0 Need to call
100%	256 of 256 (100%) called
100.00%	256 Total

Source: BTG Diabetes Health Literacy Project, 2014

Daily **Patient Experience Surveys** were also conducted. Administering the surveys allowed us to listen to HJA patients / Trenton residents regarding their experience receiving services at HJA.

### Conclusion and Future Implications

During this project intervention, we encountered various barriers. One of which was a language barrier and a loss to follow up. A lot of the patients could not be reached through their primary contact numbers either because they had been changed, not in service or just going to voicemails. A suggestion to solve this issue is for the hospital registration staff to request / require for one or more reliable contact phone numbers in reaching patients.

Although data from the patient experience surveys are still pending to be reviewed by HJA staff, what we have heard from HJA patients so far seem to reflect the following:

- Patients view HJA services and staff as reliable and persistent in helping them get better.
- The transportation systems has restricted some of its services creating a potential access to healthcare barrier for many of HJA's patients.

Overall this experience at Henry J. Austin has helped in understanding the relationship between chronic diabetes and health literacy. There are many risk factors that need to be addressed at a city level to provide resolution for Trenton's growing diabetes issue. Our efforts at Henry J. Austin are the beginnings of targeting community needs. Those most vulnerable to health priorities, as described in this report, are the ones who will benefit the most. Our hopes are that the DHLP is the first of many interventions that provide a comprehensive approach in providing sustainable solutions to Trenton's health priorities.

### Sources:

1. "Diabetes." - *Healthy People*. N.p., n.d. Web. 16 July 2014. <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=8>.
2. "Trenton Health Team Report, 2013". N.p., n.d. Web. 16 July 2014. <http://www.capitalhealth.org/~media/B67A9807E88E472287BCADB9C87BCD67.ashx>.
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4. "Trenton Health Team - Transforming Healthcare for the Community with the Community - Trenton, NJ." *Trenton Health Team - Transforming Healthcare for the Community with the Community - Trenton, NJ*. N.p., n.d. Web. 16 July 2014.