7 States Where Diabetes Prevalence Is the Highest

By Sean Williams | More Articles
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Diabetes: It's one of the most widespread chronic diseases in the United States, yet is also one of the most ignored and underdiagnosed.

According to the latest statistics from the Centers for Disease Control and Prevention in its National Diabetes Statistics Report (link opens PDF), there are now 29.1 million people, or 9.3% the population, living with diabetes in the United States as of 2012. Of those 29.1 million people, the CDC estimates that 8.1 million, or roughly 28%, are undiagnosed. Compared to CDC's prior National Diabetes Statistics Report in 2010, which had pegged just 25.8 million cases of diabetes in the U.S., this jump is both significant and alarming.

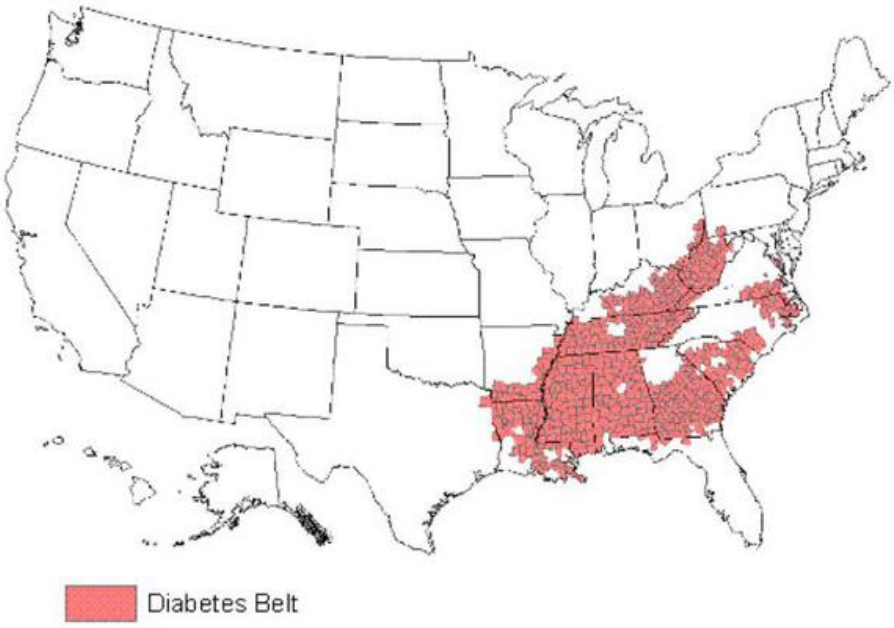
I say alarming because the direct and indirect costs of diabetes can be absolutely staggering to individuals, their families, and the healthcare system as a whole. Diabetes can bring about a bevy of health complications, such as an increased chance of heart disease, stroke, or kidney disease. However, complications associated with the disease can also cause people to miss work, become disabled, or even die prematurely. The CDC calculated this estimated direct (e.g., medical expenditures) and indirect cost to be a whopping $245 billion.

Seven states where diabetes is the most prevalent
It's also a disease that, while affecting people all over the U.S., seems to be more prevalent in seven states.

According to CDC statistics, the seven states where the highest percentage of adults have been diagnosed with diabetes as of 2010 are:

1. Mississippi (11.3%)
2. Alabama (11.1%)
3. West Virginia (10.7%)
4. Louisiana (10.3%)
5. Tennessee (10.2%)
6. Oklahoma (10.1%)
7. Kentucky (10.1%)

With the exception of Oklahoma, a number of counties in these aforementioned states, as well as in a handful of other adjoining states, make up what the CDC refers to as the "diabetes belt."

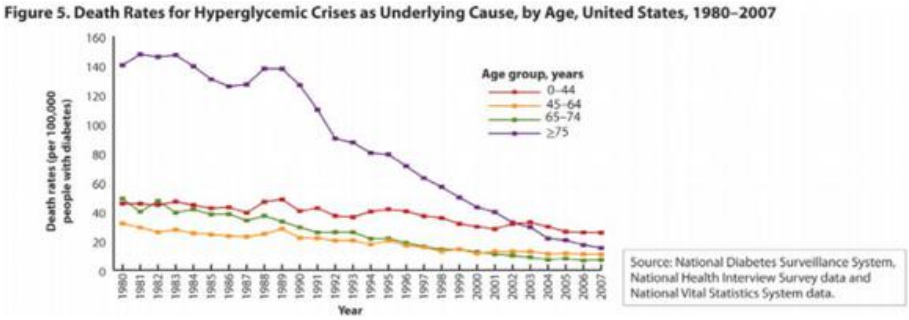


Diabetes belt as defined by the Centers for Disease Control and Prevention.

This geographic outlay represents the area of the country where type 2 diabetes (the most common form of diabetes, which tends to occur later in life and accounts for over 90% of all diabetes cases) is the most prevalent. While there is no one specific cause of diabetes, the CDC does note that the diabetes belt has a higher rate of obesity and a lower rate of leisure-time physical activity compared to other areas in the United States.

There's good news, too!

But, there's good news as well. Despite diabetes diagnoses rising from the CDC's previous statistical report, the number of deaths caused by hyperglycemia (high blood sugar) as a complication from having diabetes, as well as incidences of diabetes related end-stage renal disease, are on the decline. As you can see below, death rates due to hyperglycemic crises have seen an especially steep decline for those aged 75 and older.



Source: National Diabetes Surveillance System via Centers for Disease Control and Prevention.

What this would imply is that pharmacologic solutions may be playing a key role in improving patient survival and overall quality of life, which is what the pharmaceutical industry is really all about.

Let's have a look at some of the existing therapies that are playing a key role in improving patients' well-being and also take a brief glimpse into the future to see what pipeline treasures may await current diabetic patients.

Key therapies aimed at improving quality of life

Where advancements have really been made over the years, at least for type 2 diabetics, is in second-line therapies when metformin alone isn't enough to properly control a patient's glycemic balance. Here, there are three primary classes of drugs that have helped type 2 diabetic patients better control their blood sugar: GLP-1 receptor agonists, DPP-4 inhibitors, and SGLT2 inhibitors. These may all sound a bit foreign and scientific, but I'll explain their role in plain English below.

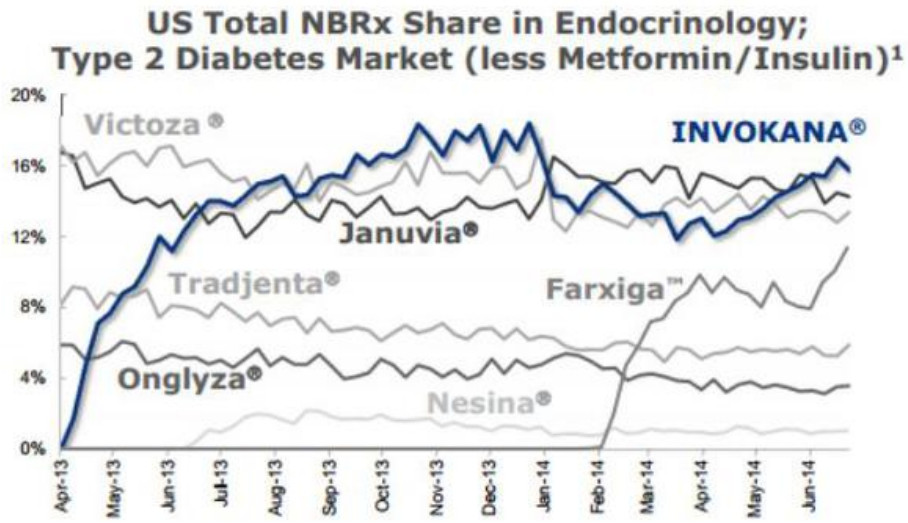
2014 National Diabetes Statistics Report. Source: Centers for Disease Control and Prevention.

The most prominent GLP-1 receptor agonist is **Novo Nordisk**'s (NYSE: NVO)

injectable drug Victoza, which was approved by the Food and Drug Administration in 2010. Put simply, GLP-1 agonist receptors encourage the pancreas to make more insulin after a patient eats a meal. Insulin is the hormone that helps regulate how we use and store glucose from our food. Better yet, in studies Victoza was also shown to induce modest weight loss in patients. This year alone, Victoza could bring in more than $2 billion in sales.

When it comes to DPP-4 inhibitors, none has been a bigger boost for patients than **Merck**'s (NYSE: MRK) Januvia (known as Janumet outside the United States), which was first approved back in 2006. As Merck's best-selling drug, Januvia/Janumet is an oral therapy that blocks an enzyme responsible for the breakdown of proteins that stimulate insulin production after a meal. By blocking this enzyme, these proteins are allowed to encourage insulin production for a longer period of time, which leads to more efficient glycemic balance. Combined, Januvia/Janumet could bring in over $6 billion in sales for Merck this year.

Finally, a newer class of drugs known as SGLT2 inhibitors is also making its mark on patient care. This class is led by **Johnson & Johnson**'s (NYSE: JNJ) Invokana and **AstraZeneca**'s (NYSE: AZN) Farxiga, which is known as Forxiga overseas. Whereas prior type 2 diabetes treatments were targeted at a patients' pancreas and liver, SGLT2 inhibitors work in a patient's kidneys and block the reabsorption of glucose that could lead to bouts of hyperglycemia, allowing patients to instead excrete excess glucose through their urine. SGLT2 inhibitors like Invokana and Farxiga have also demonstrated the favorable side effect of weight loss in patients, which is welcome since obesity can be a somewhat common occurrence in diabetic patients.



Source: IMS Market Dynamics Weekly data thru 06/27/2014 via Johnson & Johnson's Q2 investor presentation.

According to IMS' weekly data, Invokana is currently the most prescribed second-line type 2 diabetes therapy as measured by new-to-brand pescriptions (NBRx), with Farxiga coming in fourth. However, it's worth noting that Farxiga only launched in February of this year, and it's managed to garner around 12% of NBRx market share already.

Keep an eye on this experimental diabetes drug

Given the early success of SGLT2 inhibitors, their unique mechanism of action, and their favorable safety profile, an experimental therapy that diabetics should be monitoring is LX4211, which is being developed by **Lexicon Pharmaceuticals** (NASDAQ: LXRX) .

What's unique about LX4211 is that it's a dual inhibitor of both SGLT1 and SGLT2 receptors. The idea here is that blocking SGLT1 receptors, which are predominantly found in the gastrointestinal tract, along with SGLT2 receptors in the kidneys, should further assist the body in its efforts to block glucose absorption and control glycemic balance. Furthermore, in its initial studies, it demonstrated similar weight-loss effects to the aforementioned FDA-approved therapies and -- here's the best part -- it's targeted as a second-line therapy for both type 1 *and* type 2 diabetics.

Here's what really matters

We've certainly seen pharmaceutical products designed to treat diabetes come a long way over the past couple of decades. While the number of people with diabetes unfortunately continues to increase, what really matters is that death-related complications from this chronic disease are falling, according to the CDC. In the end, it's really all about improving patients' quality of life, and based on the statistics from the CDC's latest report, it would appear we're headed in a positive direction. Here's to many more years of improving patient care!

Leaked: Apple's next smart device (warning, it may shock you)
Apple recently recruited a secret-development "dream team" to guarantee its newest smart device was kept hidden from the public for as long as possible. But the secret is out, and some early viewers are claiming its everyday impact could trump the iPod, iPhone, *and* the iPad. In fact, ABI Research predicts 485 million of this type of device will be sold per year. But one small company makes Apple's gadget possible. And its stock price has nearly unlimited room to run for early-in-the-know investors. To be one of them, and see Apple's newest smart gizmo, just click here!

Sean Williams has no material interest in any companies mentioned in this article. You can follow him on CAPS under the screen name TMFUltraLong, track every pick he makes under the screen name TrackUltraLong, and check him out on Twitter, where he goes by the handle @TMFUltraLong.

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Comments from our Foolish Readers

On September 06, 2014, at 3:25 PM, **Nonomad** wrote:

> I defeated Type 2 diabetes after fifteen years of being dianosed the old fashioned way. Better diet and exercise. Left the car at home, purchased a monthly bus pass and walked 40+ pounds off my body. Glucose levels plummeted and they stay under or at 80. My A1C averages 5.3 or so and I threw away all my medicine.
>
> This may not work for others but it was exactly what I needed.