
Inequities and Inefficiencies in the Global Insulin Market

Insulin is nearly a century old.
Why are there still so many barriers
to access for those in need?

“Nearly 100 years after insulin was first used to save the life of a diabetic patient, people around the world still die because they cannot access this hormone.”

Ban Ki-moon, UN Secretary-General, speaking on World Diabetes Day in 2013.¹

There are approximately 100 million people who need insulin around the world. This includes all people living with type 1 diabetes and between 20 to 30 percent of people with type 2 diabetes. Of these 100 million people, one in two cannot reliably access this life-saving medication because it is unavailable, unaffordable, or both. Without insulin, those living with type 1 diabetes will not survive. In fact, **a lack of insulin is the number one cause of death for children living with type 1 diabetes.**² Many more suffer an increased risk of diabetes-related complications, like blindness, amputation, kidney failure, and, ultimately, premature death. Availability and affordability of medicines have been addressed in many ways throughout the years. To date, very little has been done to directly address the global problem of access to insulin. Barriers exist at both global and national levels, but none can be viewed in isolation. Some current barriers to insulin access are provided below.

Access Issues:

At the global level

Market Domination

- It is believed that **market domination of the global insulin market by three multi-national companies may be one of the reasons that the price of insulin has remained so high over the years.** These companies **control 99 percent of the insulin market value and 96 percent of its volume.**³
- This domination has led to withdrawals of certain insulin formulations, as well as shifts in the insulin market.

Increased Use of Analogue Insulin

- The use of the higher-priced analogue insulins continues to rise. **In 2009 (the last year for which data is available), analogues represented two-thirds of all insulin in high-income countries** and trends in middle- and lower-middle-income countries followed suit. In the United Kingdom (UK), **spending on analogue insulin jumped from 12 percent of total insulin costs in 2000 to 85 percent in 2010.**⁴ **This increased the UK's total pharmaceutical spending to \$US4.1 billion.**⁵
- With the increased use of analogues, out-of-pocket expenditure for insured people with type 2 diabetes increased from a median of **US\$19 in 2000 to US\$36 in 2010.**⁶
- **As of 2009, analogue insulin represented a median of only four percent of insulin use in low-income countries.**⁷

At the national level

Financial Burden on Health Systems

- Insulin places high financial burdens on health systems. Data from Mozambique, Zambia, Mali, Nicaragua, Vietnam and Kyrgyzstan from the mid-2000s shows that the annual cost of purchasing insulin for the health services represented **an average of 40 times the annual public sector pharmaceutical expenditure per person.**⁸
- **Fifty-five percent of countries reported charging a tax on insulin.**⁹ The average tax was 13 percent and Mongolia charged the highest tax (30 percent).

Availability of Insulin

- Some countries only purchase insulin once a year; therefore, errors or changes to need estimates can be costly. They lead to supply shortages or countries having to pay higher prices through local wholesalers.⁸
- Data from Health Action International (HAI) identified seven studies where insulin was provided for free in the public sector¹⁰; however, **only two countries, Mauritius and Kuwait, had substantial availability of this free insulin, with 96.7 and 100 percent, respectively.**
- Availability of insulin is critical for treatment of diabetes because it must be taken daily. A 2012 HAI study revealed a huge range in availability—**from 3.3 to 100 percent in the public sector to 4.8 to 56.7 percent in the private sector.**¹⁰

Impact of access issues on people living with diabetes

- Poor availability in the public sector forces people to purchase insulin in the private sector, often making it **unaffordable and out of reach**. In Zambia, for example, the price of insulin is US\$18.20 per vial in the private sector—almost **10 times the price of insulin in the public sector**.
- In many developing countries, diabetes and the cost of insulin place a huge financial burden on people living with diabetes and their families. For example, in 2005 the median annual cost for a child with type 1 diabetes in Sudan was US\$283¹¹, **representing 32 percent of GDP per capita**.
- Costs to the individual can be wildly variable. HAI's snapshot survey found that the price an individual with diabetes would pay for a vial of human insulin in the private sector ranged from US\$1.55 in Iran to US\$76.69 in Austria—a **difference of almost 5,000 percent**.¹²

To learn more about the ACCISS Study and join our network, visit our website: www.haiweb.org/what-we-do/acciss/

Addressing the challenges and constraints of insulin sources and supply

The inequities and inefficiencies in the global insulin market show a clear need to develop a scientific approach to address the challenges and constraints of insulin access. This is what the innovative global study, Addressing the Challenges and Constraints of Insulin Sources and Supply (ACCISS), sets out to do. The study is identifying the causes of poor availability and high insulin prices and developing policies and interventions to improve access to this life-saving medicine, particularly in the world's most under-served regions. This three-year study involves a unique group of leading international experts as members of the study's advisory and technical groups. ACCISS is co-led by Margaret Ewen at Health Action International, David Beran from Geneva University Hospitals and the University of Geneva, and Richard Laing from Boston University. The Leona M. and Harry B. Helmsley Charitable Trust is funding the study.

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