

*The Voice of the Donor  
for a Cure*

# Juvenile Diabetes Cure Alliance

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## The Economic Impact of Type 1 Diabetes

### *Conclusions:*

-Type 1 diabetes is expensive for the United States, to the tune of \$14.5 billion annually.

-Academic research places the value of a Practical Cure for type 1 diabetes at \$423 billion, which makes type 1 diabetes the second most expensive disease in the U.S., right behind heart disease.

- Making Practical Cure research a priority would materially reduce the significant financial impact of this disease, in addition to the the intangible emotional, physical, and mental cost of living with type 1 diabetes.

### **Organizations of Focus:**

American Diabetes  
Association (ADA)

Diabetes Research  
Institute Foundation  
(DRIF)

JDRF

Joslin Diabetes Center  
(Joslin)

### TAKE ACTION NOW

**Ensure it's for a Cure**



✓ **Specify** for Practical Cure research.  
Use our letter at [www.thejdca.org/](http://www.thejdca.org/)

✓ **Call us** for an advisory meeting at  
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To coincide with Diabetes Awareness Month, our last report highlighted the increasing incidence of type 1 diabetes in the United States. Our current report will demonstrate that type 1 diabetes is **expensive**—both for individuals and for the country. The significant financial and social costs of type 1 underscore the need to pursue a Practical Cure as soon as possible.

The JDCA has reviewed academic publications that give the most current estimates of the costs of type 1 diabetes. Generally, these studies focus on both direct and indirect economic costs, which include the actual costs of treating the disease (e.g. hospitalizations, prescriptions) as well as secondary effects that reduce productivity (e.g. loss of work, absence from school).

The most commonly cited statistic is that type 1 diabetes costs the United States about **\$14.5 billion** annually (published estimates range from \$14.4- \$14.9 billion), which includes both direct and indirect costs.<sup>1</sup> Of this estimate, total direct medical expenditures are **\$10.5 billion** annually (based on estimates that 1.1 million people in the U.S. have type 1 diabetes), with the remaining **\$4 billion** annually attributed to indirect costs, i.e. productivity losses.<sup>2</sup>

The research consistently finds significant direct and indirect cost differences for a person with type 1 as compared to a person without type 1. Within medical costs, the differences between a diabetic and non-diabetic are stark: a type 1 diabetic incurs **\$10,500 per person** annually in direct costs, 3 times as much as a non-diabetic at **\$3,500 per person**.<sup>3</sup> Individuals typically do not pay the direct cost of type 1 entirely out of pocket; the U.S. healthcare system registers a significant portion of the cost difference. Type 1 diabetes nonetheless represents a considerable expense for individuals.

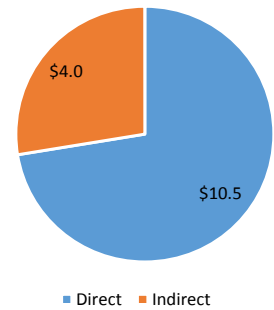
Beyond medical costs, type 1 diabetes causes significant impairment to day-to-day life. Each type 1 diabetic, as compared to a non-diabetic, is expected to miss **5.5 more work days, miss 3.3 more school days (for those under 18), and earn \$7,164 less in gross pay in any given year**.<sup>4</sup> When combining these statistics across all type 1 diabetics for their lifetimes with the disease, the resulting productivity decline for people with type 1 diabetes can be quite staggering.

### The Cost of a Practical Cure

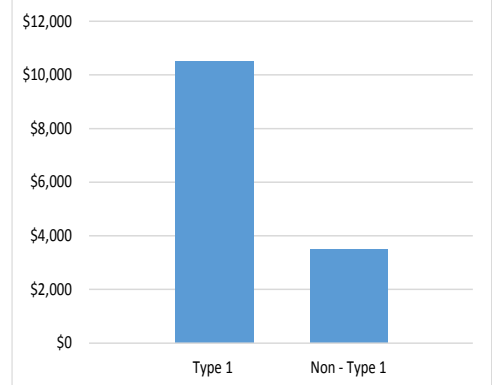
By eliminating the direct medical costs and indirect productivity costs of type 1, a **Practical Cure would save the United States \$423 billion** over the lifetimes of the newly diagnosed and already established type 1 diabetics.<sup>5</sup> A cost of \$423 billion would put **type 1 diabetes among the top diseases in the entire United States in terms of aggregate economic cost impact, right along with heart disease, digestive disease, and alcohol abuse and dependence** (between \$300-500 billion each).<sup>6</sup> From an economic standpoint, **the value of a Practical Cure cannot be ignored**, particularly for the youngest patients who otherwise have a lifetime of expected costs ahead of them.

This report has outlined the significant economic costs of type 1. As we add up the numbers, we remain mindful of the significant emotional, physical, and mental toll of living with type 1. These intangible costs are unquantifiable for people with diabetes and their families. A Practical Cure is worth \$423 billion to the national economy, but for people living with type 1, a Practical Cure would be invaluable.

Total Annual Type 1 Diabetes Costs



Annual Direct Medical Costs



1. Tao, "Estimating the Cost of Type 1 Diabetes;" Jasinski "Healthcare cost of type 1 diabetes"  
 2. Jasinski, "Healthcare cost of type 1 diabetes"  
 3. Tao, "Estimating the Cost of Type 1 Diabetes"  
 4. Ibid.  
 5. Ibid.  
 6. Kockaya, "What are the top most costly diseases for USA?"

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## **SOURCES:**

1. Tao, B., Pietropaolo, M., Atkinson, M., Schatz, D., & Taylor, D. (2010). Estimating the Cost of Type 1 Diabetes in the U.S.: A Propensity Score Matching Method. *PLoS ONE*, 5(7): 1-11. doi:10.1371/journal.pone.0011501
2. Jasinski, C., Rodriguez-Monguio, R., Tonyushkina, K., Allen, H. (2013). Healthcare cost of type 1 diabetes mellitus in new-onset children in a hospital compared to an outpatient setting. *BMC Pediatrics*, 13(55). doi:10.1186/1471-2431-13-55
3. Kockaya, G., Wetheimer, A. (2010). What are the top most costly diseases for USA? The alignment of burden of illness with prevention and screening expenditures. *Health*, 2(10): 1174-1178. doi:10.4236/health.2010.210172

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