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Merck is attempting to identify which countries are most at risk of being impacted by diabetes through the year 2030. We found the metrics that quantify the impact of the disease best are: national prevalence, diabetes related deaths, and the average diabetes-related expenditure per person. Once these metrics are explored for each country, we are better equipped to compare the impact of diabetes globally from country to country, and to enhance our understanding of the areas most at risk of being affected. These findings are explored in “The Global Impact of Diabetes” section of the infographic.

We felt the metric, national prevalence, was the best indicator of countries most impacted by diabetes because it showed which populations were the most saturated with people affected by the disease. To calculate this, the number of cases in each country were divided by the total population in the corresponding country. After performing this analysis, we discovered the top ten countries most at risk for diabetes in the future are: Tokelau, Mauritius, Cook Islands, Marshall Island, Palau, New Caledonia, Guam, and French Polynesia. The national prevalence in these countries ranges from 19.6% to 29.70%, with Tokelau having the highest rate of diabetes nationally. These findings are presented in the “High Risk” section of the infographic.

Interestingly, the top ten countries are all island nations, eight of which are located in the South Pacific Ocean. Because most of these nations share cultural and lifestyle similarities, Merck will be able to develop a single plan that can apply to most of these countries. The main problem in the South Pacific is the majority of clinics lack the available funds and resources required for the treatment of diabetes. Merck can powerfully combat this issue through working with other organizations to make more affordable methods of obtaining medications and treatment equipment. An example where such a strategy has worked in the past can be seen through Unicef’s procurement of ordinarily expensive vaccinations for the purpose of distribution at a reduced cost to those in need. This strategy would be beneficial for Merck to adapt as it has proven its success and could serve as a model for other, similar organizations.

Another major issue in the South Pacific is the shift away from traditional meals to more westernized food consumption. With this change, people are not fully aware of the side effects, diabetes being one of them. The lack of education on the subject and an absence of knowledge on preventative tactics has put this region at high risk for diabetes. Not only this, but there is a common deficiency among the islands of trained community health workers, nutritionists, and health educators. Merck can bridge the gap between available resources and education on the disease in these countries.

Our analysis has pinpointed a region where diabetes is most prevalent and Merck’s resources could be of most use: The South Pacific Islands. This concentrated location provides Merck an advantage through eliminating the need for multiple strategies to account for socioeconomic differences. By focusing on a single region, Merck will be able to use its resources most efficiently and produce the greatest global impact on the diabetes epidemic.

Our infographic can be found at:

<https://app.powerbi.com/view?r=eyJrIjojOGRlZDA1MjMtNzUyZC00NTY2LWE3YjctMDA2ZGFkODhkZGI4IiwidCI6IjcxNmU4MWVmLWl1MjltNDQ3My04ZTMxLTEwYmQwMmNjZjZINSIsImMiOjF9>