Estimated sustainable cost-based prices for diabetes medicines

Melissa Barber[1], Dzintars Gotham[2], Helen Bygrave[3], Christa Cepuch[3]

[1]Yale Collaboration for Regulatory Rigor, Integrity and Transparency (CRRIT), Connecticut, USA; [2]Kings College London, London, UK; [3]Médecins Sans Frontières Access Campaign, Geneva, Switzerland

Introduction

- Globally 537 million people are living with diabetes
- Africa and the Middle East are predicted to have the highest increase in diabetes cases
- Medicines and delivery devices recommended and used in high income countries for diabetes are less available in low- and middle income countries (LMICs) mostly due to high prices
- Management of type 2 diabetes has transformed in high income settings over the last decade with new medicines: sodium-glucose cotransporter-2 (SGLT2) inhibitors and glucagon-like peptide-1 receptor (GLP-1) agonists that significantly improve cardiovascular outcomes.
- MSF pays six times as much for insulin in pen devices compared to vials, but unclear why pen prices continue to be so high
- This research analyses the cost of manufacturing insulins, SGLT2s and GLP-1s, derive sustainable cost-based prices, and compare these to current market prices

Methods

- An economic model for manufacturing of diabetes medicines was designed
- Costs of active pharmaceutical ingredients (API) were extracted from a commercial database of trade shipments
- Costs for devices were obtained through review of trade and academic literature and interviews with manufacturers
- Costs of API were combined with formulation costs, costs to bring to market, and other operating expenses, adding a profit margin and an allowance for tax to derive a sustainable cost-based price (CBP)
- CBP were compared to current prices in 13 countries, collected from public databases

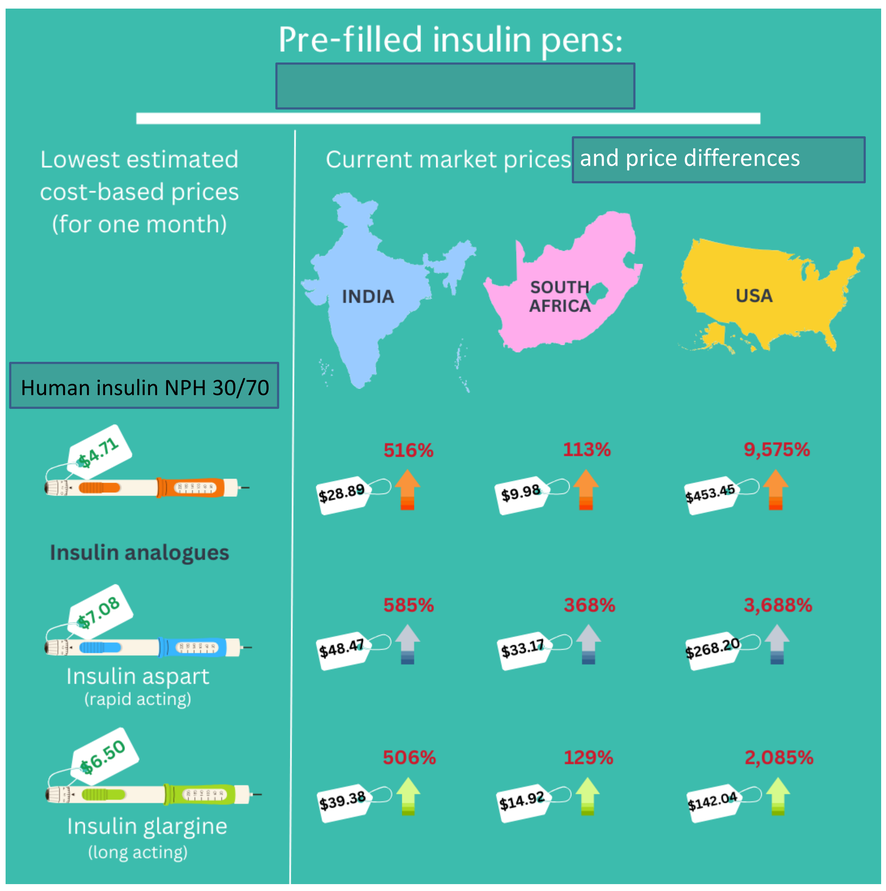
The fact is that living with diabetes is challenging no matter where in the world you are, and now that we have a treatment option in insulin pens that is preferred and more practical, it should be an urgent priority to address pricing barriers and expand their availability to as many people as possible, especially considering how affordable pens could be if pharmaceutical corporations priced them fairly and without unnecessary markups.

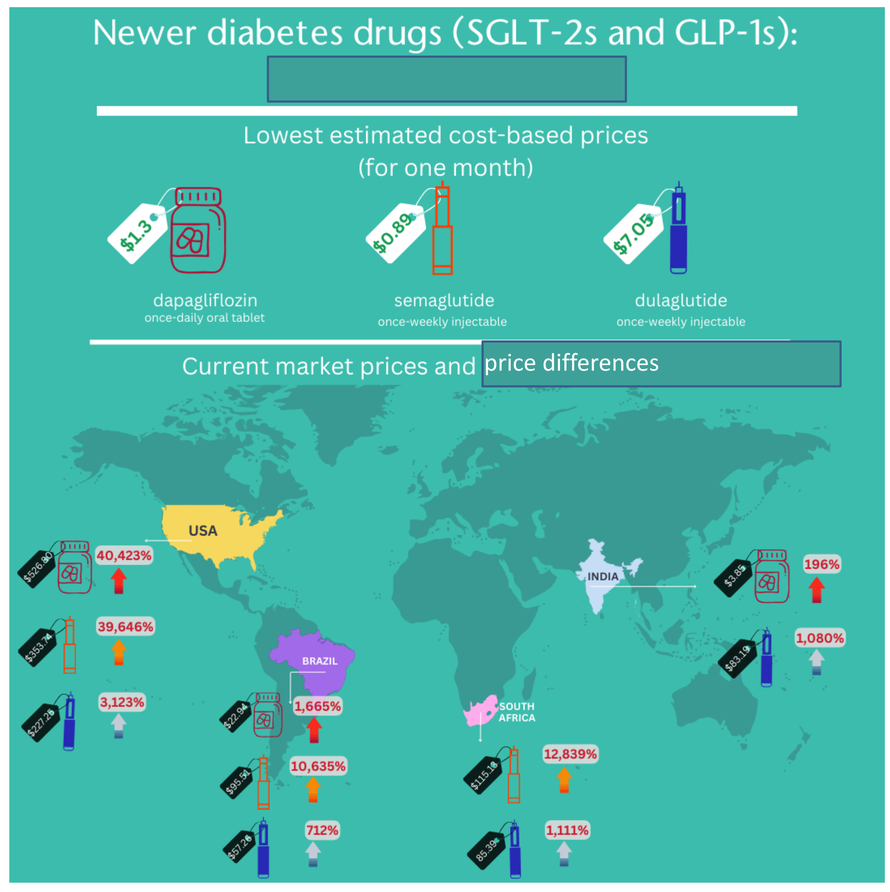
Conclusions:

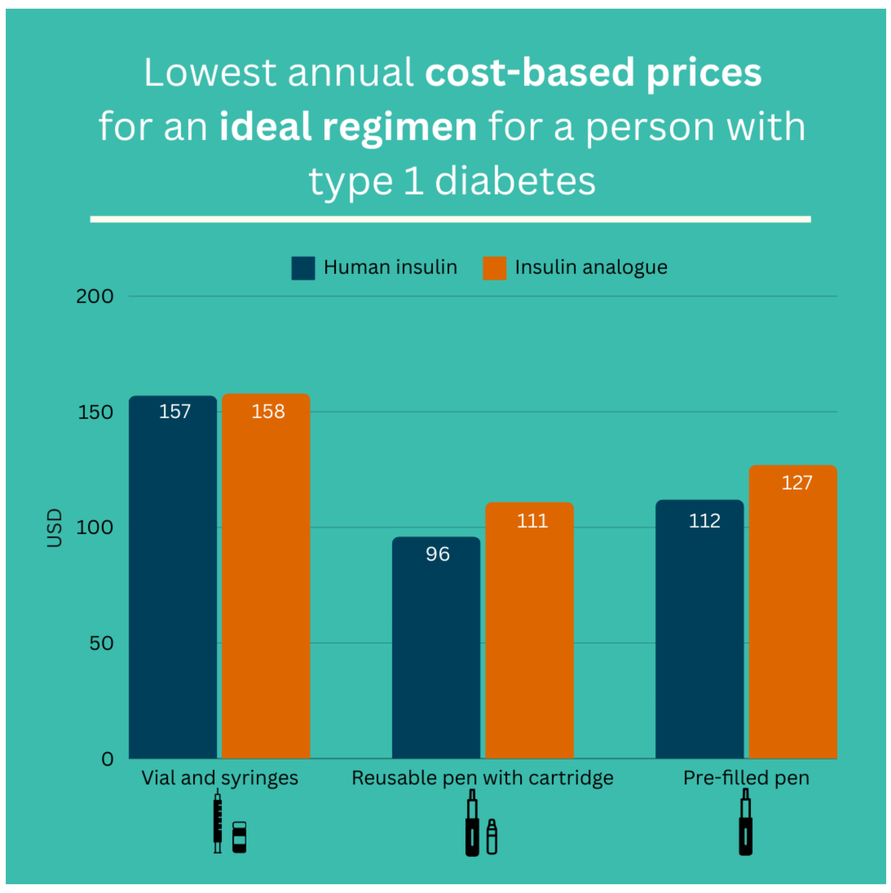
Our study shows insulin pens and analogue insulins, both of which can improve quality of life and clinical outcomes, could be more affordable than human insulin in vials, which is the current standard of care in MSF and most LMICs

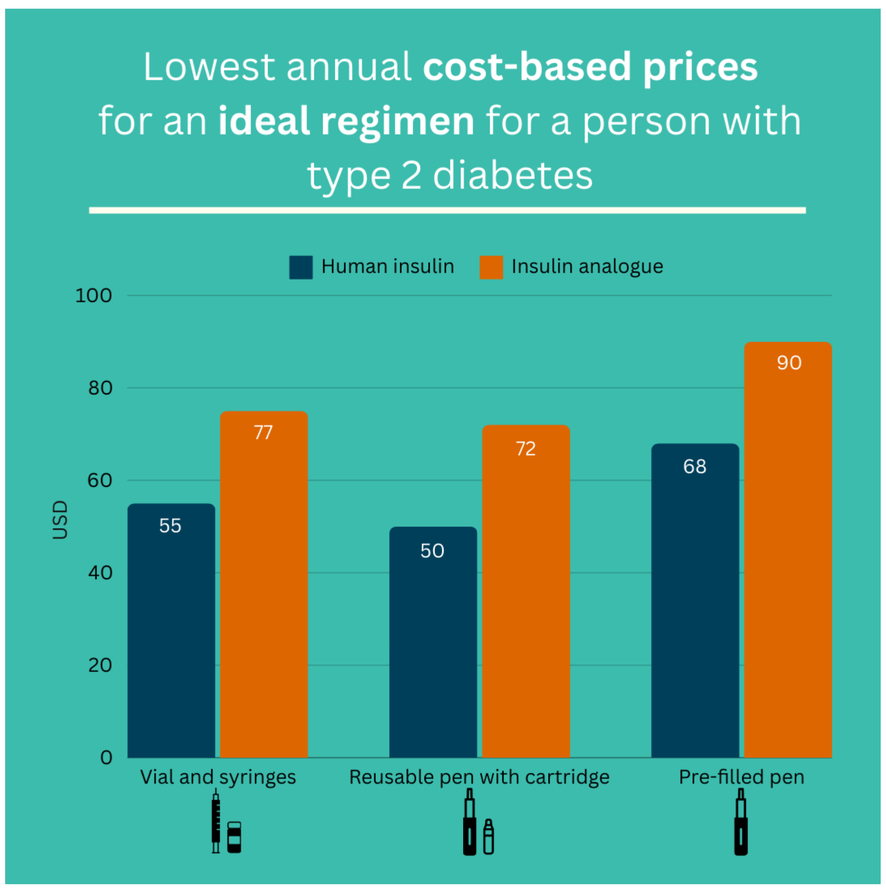
There are huge opportunities for price reductions of newer medicines for type 2 diabetes (SGLT-2 and GLP-1s); semaglutide (a GLP-1) could cost as little as $0.89/month

Results









In order to present findings in a concise manner, estimated cost-based prices and comparisons to current prices are only presented here for some products, some countries, and as compared to the lowest estimated cost-based price. Please see the published article, available through the QR code, for full results.

Acknowledgements

Thanks to the people living with diabetes who have shared their lived experience of using different devices for diabetes

For questions or comments
contact: helen.bygrave@joburg.msf.org