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Three independent studies demonstrate the cost-effectiveness of the MiniMed™ 780G system over standard management of type 1 diabetes

Results from Australia, Japan and Hong Kong highlight the potential impact across healthcare systems in the Asia-Pacific region

December 11, 2025 - Medtronic plc, a global leader in healthcare technology, today announced new data demonstrating the significant health economic benefits of the MiniMed™ 780G advanced hybrid closed-loop system over the standard of care using multiple daily injections (MDI) with intermittently scanned continuous glucose monitoring (isCGM). With the prevalence of diabetes in the Western Pacific region[i] predicted to rise from 12.4% today to 14.7% by 2050, these findings underscore the growing value of automated insulin delivery systems in managing type 1 diabetes across diverse care settings. The evidence was presented at the Advanced Technologies & Treatments for Diabetes ATTD Asia 2025, the 2nd Asian Conference on Innovative Therapies for Diabetes Management.

Consistent benefits across Asia-Pacific

Three independent studies from Japan, Hong Kong and Australia showed that the MiniMed™ 780G system consistently demonstrated improved quality of life and reduced the long-term risk of diabetes-related complications compared to MDI+isCGM. These clinical advantages generated meaningful cost savings that partially offset the system's higher upfront costs.

Hong Kong[ii]

- +2.351 quality-adjusted life-years (QALYs)
- HKD 306,179 savings per person, from reduced complications
- Incremental cost-effectiveness ratio (ICER): HKD 392,602 per QALY-gained

Japan[iii]

- +2.865 QALYs.
- ¥2,857,914 savings per person, from reduced complications
- ICER: ¥4,423,282 per QALY-gained

Australia[iv]

- +1.403 QALYs
- AUD 47,792 in savings per person, from reduced complications

- ICER: AUD 32,734 per QALY-gained

In all three countries, the focus was on adults with sub-optimally controlled type 1 diabetes (HbA1c >8%). All analyses leveraged data from the peer reviewed ADAPT study,[v] which found a 1.54% reduction in HbA1c with the MiniMed™ 780G system, compared to a 0.2% reduction with MDI+isCGM from a baseline of 9.00% and 9.07%, respectively.

Baseline characteristics, complication costs, and quality of life measures were sourced from local publications where possible. A lifetime horizon was used, reflecting the expected duration of living with T1D based on country-specific factors, and local willingness-to-pay thresholds were applied to determine cost-effectiveness.

"Greater accessibility and education on the benefits of hybrid closed loop therapy today will translate into healthier lives and lower costs tomorrow." said Prof. Sarah Glastras, Consultant Endocrinologist at the Northern Sydney Endocrine Centre in Australia.

Strong alignment with global economic evidence:
These robust results from the Asia-Pacific region follow similar recent health economic evidence in Europe that demonstrates how the adoption of automated insulin delivery (AID) systems can potentially reduce the long-term costs and burden of diabetes for individuals, healthcare systems and society.

- A cost-utility analysis[vi] across six European countries found that the MiniMed™ 780G system delivers up to three extra years free of complications and greater quality adjusted life-expectancy that corresponds to 829 days of full health, and average savings of €32,000* per person in long-term complications avoided.
- A 2025 UK study[vii] found that increasing time in range (TIR) by 10 percentage points would reduce long-term complication costs by 7.5%-9.9% over 20 years for the NHS.
- A study in France[viii] showed the MiniMed™ 780G system led to an extra 2.89 years free of any long-term complications compared with MDI+isCGM.

"Data like this reminds us why innovation matters," said Que Dallara, president of Medtronic Diabetes. "When people living with diabetes have access to technology that works with them, everyone benefits — individuals, families, and health systems alike. The results from these independent studies across the Asia-Pacific reinforce what we've seen globally: the MiniMed™ 780G system makes diabetes more predictable so people can live with greater freedom and better health."

A call for broader access to proven technologies
According to the International Diabetes Federation (IDF), diabetes-related expenditure in the Western Pacific region totaled $246 billion[i] in 2024, the second highest of all IDF regions and 24% of global diabetes expenditure. Despite a decade of progress in Automated Insulin Delivery (AID) systems and strong clinical and real-world evidence showing their superiority over MDI+isCGM, access remains inequitable — especially across developing economies. A 2025 Call-to-Action[ix] coalition of leading clinicians and academics urges professional societies and government agencies to recognize AID systems as standard of care for glycemic management in youth and adults with T1D, and to integrate these recommendations into current and future guidelines to close the gap in access:

1. *All people with type 1 diabetes and other patients with insulin-dependent diabetes must be given a choice to use an AID system at the time of diagnosis or as soon after diagnosis as possible.*
2. *The reason(s) for not giving a choice of using an AID system should be documented in the medical record.*
3. *The choice of device should be made based on the individual's circumstances, preferences, and needs.*
4. *National health care systems should prioritize the provision of unfettered access to AID systems to democratize the known benefits of AID systems.*

Frequently Asked Questions

Q: What is the MiniMed™ 780G system?

The MiniMed™ 780G system is the most advanced insulin pump system from Medtronic. The MiniMed™ 780G system's SmartGuard™ algorithm (also referred to as the advanced hybrid closed-loop algorithm) automates the delivery of insulin every five minutes – personalizing these doses to auto-correct† highs every five minutes based on CGM readings.§ The system is designed to be used at a target glucose of 100 mg/dl (5.5 mmol/L) that can be adjusted and personalized on an individual basis. It is intended for people with type 1 and type 2 diabetes who require insulin and who are seeking more automation and easier management of their diabetes therapy.

Q.: What is payer-focused analysis?

Payer-focused analysis evaluates healthcare interventions from the perspective of those who fund or reimburse care—such as government agencies, insurance companies, or other payers. In the context of the MiniMed™ 780G studies, this approach examines the cost-effectiveness and budget impact of adopting the advanced diabetes technology. It considers long-term cost savings, improvements in quality-adjusted life-years (QALYs), and reductions in diabetes-related complications compared to standard care. The goal is to provide decision-makers with clear evidence on the value and cost-effectiveness of medical interventions, supporting efficient resource allocation within the healthcare system.

Q: What is a Quality Adjusted Life Year (QALY)?

QALY (Quality-Adjusted Life Year) is a health economics metric that measures the value of medical interventions by combining life expectancy and quality of life. One QALY equals one year in perfect health; lower health quality reduces the value proportionally (e.g., 0.7 QALYs for a year at 70% health). QALYs are calculated by multiplying years gained by a quality-of-life weight (0–1). This metric enables comparison of treatment effectiveness and supports cost-effectiveness analyses for resource allocation.

Q. What is Quality-Adjusted Life Expectancy (QALE)?

This is a summary measure in health economics and outcomes research. It represents the expected number of years of life remaining, adjusted for the quality of those years based on health status. QALE is calculated by multiplying the remaining years of life by the average utility value for those years and is used to compare the overall health status or burden of disease across populations or to estimate the impact of interventions on a person's or population's expected future health.

Q: What is the incremental cost-effectiveness ratio (ICER)?

The incremental cost-effectiveness ratio (ICER) compares two health interventions by dividing the difference in costs by the difference in effectiveness, usually in QALYs. It shows the extra cost required for one additional unit of health benefit, helping policymakers judge if a new treatment's benefits justify its added cost.

Q: What is the willingness-to-pay (WTP) threshold?

The willingness-to-pay (WTP) threshold is the maximum cost society, payers, or individuals accept for one unit of health benefit, typically a QALY. It guides decisions on whether an intervention's incremental cost-effectiveness ratio (ICER) falls below this threshold, making it cost-effective and more likely to be adopted. WTP thresholds vary by country and health system.

Q: What is the ADAPT study?

The Advanced Hybrid Closed Loop Study in Adult Population with Type 1 Diabetes (ADAPT) study was the first prospective, multicenter, open-label randomized control trial (RCT) to evaluate the MiniMed™ 780G AID algorithm versus MDI with isCGM in adults with type 1 diabetes and poor glucose control (HbA1c ≥8.0%)[v]. Over 6 months, AID therapy achieved a 1.4% HbA1c reduction and a 27.6% increase in time in range (70–180 mg/dL) compared to MDI+isCGM.

* Cost effectiveness results vary in countries. The potential cost-saving figures provided represent the average of the countries included in the analysis.

† Refers to auto correct, which provides bolus assistance. Can deliver all auto correction doses automatically without user interaction, feature can be turned on and off.

§ Refers to SmartGuard™ feature. Individual results may vary.

About the Diabetes Business at Medtronic

Medtronic Diabetes is on a mission to make diabetes more predictable, so everyone can embrace life to the fullest with the most advanced diabetes technology and always-on support when and how they need it. We've pioneered first-of-its-kind innovations for over 40 years and are committed to designing the future of diabetes management through next-generation sensors (CGM), intelligent dosing systems, and the power of data science and AI while always putting the customer experience at the forefront.

About Medtronic

Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Galway, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission — to alleviate pain, restore health, and extend life — unites a global team of 95,000+ passionate people across more than 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic, visit www.Medtronic.com and follow on LinkedIn.

Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

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