



MedicalBrain

Medical Brain Impact Analyses

- Improved Diabetic Control
- Care Gap Reduction and HEDIS Measurement Performance
- Error Reduction in Obstetrics
- Improved Provider Efficiency
- The Medical Brain RPM Program and Market Differentiation

April 2024

www.medicalbrain.com

Diabetes Impact Analysis

The **Medical Brain AI digital clinical assistant** helps patients **achieve target HgbA1c levels and maintain their diabetic control** improving their health status and **reducing diabetes related costs** by nearly \$3800 per patient.

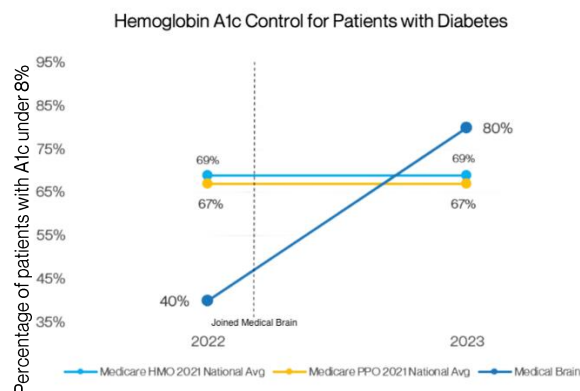
The Medical Brain is an important part of a primary care or a specialty provider's practice. The Medical Brain AI powered digital clinical assistant combines patient-centric decision support and real-time care orchestration to help diabetic patients achieve target HgbA1c levels of under 8% and sustain diabetic control by addressing both diabetic conditions and other related chronic conditions. Uncontrolled diabetes can exacerbate health deterioration and increase diabetes related costs, compromising providers' ability to achieve Value-Based Care success.

Why This is a National Healthcare Priority:

Diabetes extracts significant human and financial costs from a growing percentage of the of the population who are diagnosed with the condition. The numbers tell the story. 11.6% of the population has diabetesⁱ, generating a significant healthcare bill for the US of \$412.9Bⁱⁱ.

The Medical Brain Impact – Real Life Example

The Medical Brain AI powered clinical digital assistant enabled a group of hard to control diabetics to rapidly achieve their HgbA1c target of less than 8%.ⁱⁱⁱ



Internal healthPrecision Analysis:

Methodology: A group of 200 patients across providers using the Medical Brain for more than 6 months were reviewed. Of that sample, 15 patients were identified as "hard to control diabetics." With the Medical Brain, **80%** of those patients achieved HgbA1c levels at target levels under 8%, compared with their lower levels of 40% recorded before they started using the Medical Brain. These findings represent a positive trend, correlating Medical Brain usage with diabetic control.

Source Data: Payer Claims Data

In addition to better patient outcomes, providers using the Medical Brain can achieve a reduction in diabetes related costs.

- Patients with consistent **HbA1c control cost 19% less** than those without sustained control.^{iv}
- This means an **average reduction of \$3,800 in diabetes-related annual medical costs per patient.**^v
- In a 150-provider practice as an example, **the impact of improving HbA1c control with the Medical Brain** can translate to **\$11mm or more** in cost savings.^{vi}

	A1c Control Among Diabetics	% of Overall Population with Diabetes	Providers in Practice	Providers using MB	Patients in Practice with Access to MB	Diabetic Patients with access to MB	Expected Net A1c Improvement Over Nat'l Avg	Savings Per Newly Controlled Patient	Total Cost Savings
National Avg	67-69%	11.6%	150	138	281k	32,585	0%	\$0	\$0
With MB	80%	11.6%	150	138	281k	32,585	9.6%*	\$3,824**	\$11.9mm***
Improvement	12%	-	-	-	-	-	9.6%	\$3,824	\$11.9mm

*Expected Improvement of 12% based on Medical Brain internal analysis, haircutted 20%.

**Based on [publicly available data](#)

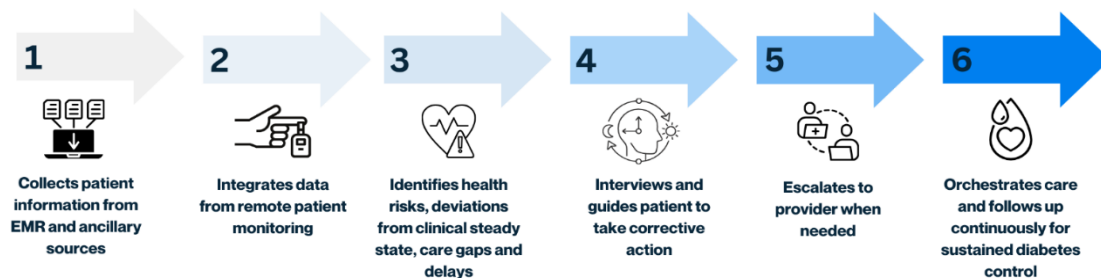
***Calculated by multiplying diabetic patients with access to Medical Brain by the expected improvement rate by the savings per newly controlled patient (32,585 x 9.6% x \$3,824)

As more and more patients use the Medical Brain, we expect this impact of the Medical Brain on diabetic outcomes to continue.

How the Medical Brain Works in Managing Diabetes

The Medical Brain is being used by providers and their chronic care / diabetic patients for 24/7 patient monitoring and patient-centric clinical decision support to patients with Diabetes to help them achieve targeted levels of HgbA1c, a widely used indicator of diabetes control.

Comprehensive chronic disease management with 24/7 patient monitoring, real-time identification of health deterioration and patient guidance for immediate corrective action, based on evidence-based protocols.



ⁱ [Diabetes.org](https://www.diabetes.org)

ⁱⁱ [DiabetesJournals.org](https://diabetesjournals.org)

ⁱⁱⁱ Internal Medical Brain analysis of Hemoglobin A1c trends.

^{iv} National Diabetes Statistics Report ([cdc.gov](https://www.cdc.gov))

^v [nih.gov](https://www.nih.gov)

^{vi} Internal Medical Brain analysis

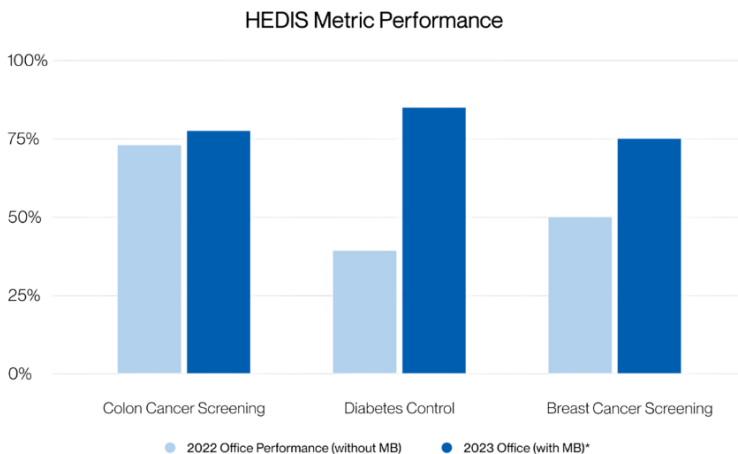


HEDIS Measure Impact Analysis

The Medical Brain Helps Providers **Increase their HEDIS Composite Performance** from 3- to high 4-star Ratings **by Closing Care Gaps**

Providers struggle to close care gaps due to the high demands of patient care and the extensive time required for both administrative and clinical tasks in their practices. The Medical Brain plays a crucial role, managing care gaps such as scheduling and ensuring patients attend screening appointments, along with monitoring and controlling chronic conditions like hypertension (HTN) and hemoglobin A1c (HgbA1c) levels. The Medical Brain efficiently manages care gaps without the need for manual intervention or attention from the practice's busy staff. This automation not only helps in closing care gaps effectively but also allows providers to focus more on direct patient care, improving quality and patient satisfaction and expanding their capacity for additional patients.

The Medical Brain helped providers increase their HEDIS composite performance from 3 to 4-Star ratings by closing care gaps, which could translate into \$4M in additional bonuses for a practice of 150 providers.



Internal healthPrecision Analysis:

The Medical Brain was used by a large ACO client (Optimus Health) to close care gaps before year-end. The Medical Brain identified unclosed gaps and sent reminders to patients until they complied. It also identified gaps that had been closed and re-categorized them accurately to increase reported care gaps as closed at year-end. This chart reflects the potential in care gap closure for other clients when the Medical Brain is fully utilized.

Financial Impact of Care Gap Closer for Providers:

Providers aim for the highest HEDIS star rating possible to capture bonuses and avoid penalties.

- 5 Stars: Highest reimbursement level with maximum bonus payments up to 5%
- 4 Stars: 4% to 5% bonus, reflecting their above-average performance.
- 3 Stars: Average rating, with no bonuses or penalties.
- 2 Stars: Below-average rating, with no bonus and potential penalties and adjustments
- 1 Star: Lowest rating, no bonus and potential sanctions or corrective action plans

Impact of the Medical Brain

The Medical Brain's proactive approach to reducing care gaps helps providers improve their composite HEDIS Star Ratings, which for a 150-provider practice could mean **\$4 million in additional bonuses** derived from a 1-star pickup in HEDIS Star Rating.

	Star Rating	Bonus PMPM*	PMPY*	Providers	Providers on MB	Attributable Population	Potential Bonus Differential
Old Rating	4	\$8	\$96	150	138	164k	-
New Rating	5	\$10	\$120	150	138	164k	\$3.94mm
Impact	1	\$2	\$24	-	-	-	\$3.94mm**

*PMPM and PMPY figures are derived based on an assumption of \$2 per star per member per month (\$24 per star per member per year). Actual calculations may vary depending on the actual dollar value of MedEx savings. Current assumption based on feedback from Medical Brain advisor. Bonus differential is calculated by multiplying the bonus differential by the attributable population of the practice (\$24 x 164k = \$3.94mm).

**Medical Brain outcomes are designed to help providers achieve improved Star Ratings. When successful, Medical Brain receives a portion of the additional shared savings bonus from its participating providers.

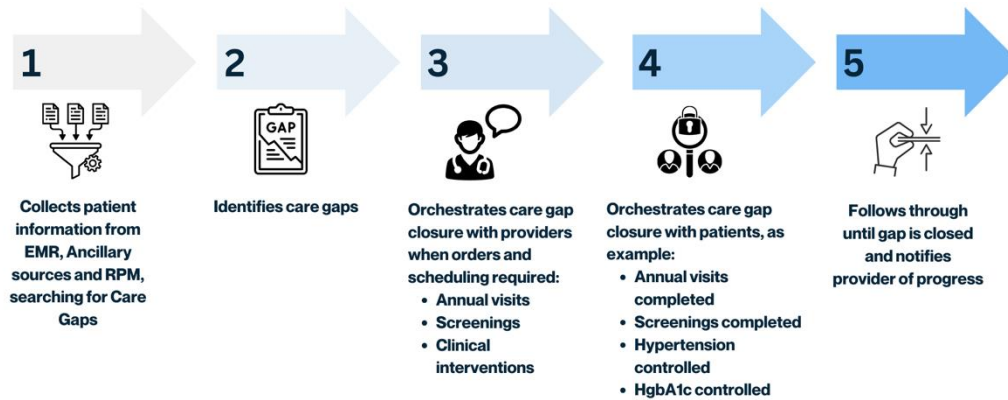
Why Medicare Prioritizes Care Gap Closure:

HEDIS (Healthcare Effectiveness Data and Information Set) ratings are a key tool used to measure healthcare providers' performance on preventive care, chronic disease management, services, and ultimately cost of care. They highlight care gaps which are critical areas where healthcare delivery often falls short of established standards, affecting patient outcomes, overall health system efficiency and costs. Addressing these care gaps is essential for improving quality of care, enhancing patient satisfaction, and optimizing health outcomes.

Priority Care Gaps

- **Breast Cancer Screening:** Early detection of breast cancer can significantly improve outcomes. Priority Rating: High (8/10).
- **Colorectal Cancer Screening:** Critical for early diagnosis and treatment of colorectal cancer. Priority Rating: Very High (9/10).
- **Diabetes Care:** Comprehensive management is vital for controlling diabetes and preventing complications. Priority Rating: Critical (10/10).
- **High Blood Pressure Control:** Essential for preventing heart disease and stroke. Priority Rating: Very High (9/10).
- **Cholesterol Management for Patients with Cardiovascular Conditions:** Important for reducing the risk of further cardiovascular events. Priority Rating: High (8/10).
- **Osteoporosis Management in Women:** Key in preventing fractures and maintaining bone health in postmenopausal women. Priority Rating: High (7/10).

How the Medical Brain Works in Closing Care Gaps



Medical Brain proactively closes care gaps by actively analyzing patient information across a multitude of sources, and then working with both patient and provider to help close those gaps.



The Medical Brain Reduced Obstetrical Adverse Events Impact Analysis

“By using the Medical Brain we were able to **reduce adverse events in obstetrics by a remarkable 90.7%**, while **also improving documentation and clinical efficiency** for our clinicians. This is **what the future of medicine is**, and the Medical Brain places us at the forefront, leading the way with proven results using AI.”

Shoshanna Haberman, MD, Director of Maternal Fetal Medicine, OB/GYN Maimonides Medical Center

Maimonides Medical Center (MMC)

Maimonides Medical Center (MMC), a leader in Maternal Fetal Medicine and the largest obstetrical care provider in New York, and HealthPrecision announce groundbreaking achievements in reducing Obstetrical Never Events by 90.7%ⁱ with the Medical Brain AI technology. The collaboration between MMC and healthPrecision, led by Maimonides' Dr. Shoshanna Haberman, MD, Director of Maternal Fetal Medicine and Dr. Eyal Ephrat, CEO healthPrecision places the Medical Brain AI's clinical decision support and automation in the hands of providers to help those providers deliver high precision obstetrical care. With the Medical Brain, MMC has taken a significant leap forward in combating the rise in maternal morbidity, which has alarmed the nation and highlighted the urgent need to reduce adverse events and improve access for high quality care.

The American Journal of OB/GYN Study

The 3-year study of the impact of the Medical Brain's impact, conducted by the Department of Maternal Fetal Medicine illustrated the Medical Brain's AI based clinical decision support application had a profound impact on quality, reducing OB red never events from 118 to 11 patients per 1,000.ⁱⁱ Red never events are those situations that are preventable and place mothers and infants at extreme risk. Red never events include such potentially harmful situations as not discontinuing the administration of Pitocin with a non-reassuring fetal heart rate, lack of administering magnesium sulfate for patients with severe preeclampsia and lack of administering antibiotics to patients with positive group B strep.

“The Medical Brain is effective in helping us reduce never events and improve quality for our high-risk patient population. It is a high-precision, real-time system that accurately sees and constantly analyzes the patient's clinical picture and identifies any health risks, delays, gaps in care or documentation then guides the clinician so they can take immediate action,” said Shoshana Haberman, MD, PhD, director of maternal-fetal medicine and medical informatics.



A New Era in Obstetrical Care

“Labor and delivery is very dynamic. A lot is happening at the same time in our busy service. So, things can, very quickly, go from normal to problematic for mom and baby,” said Scott Chudnoff, MD, chair of the OBGYN department. “With the Medical Brain, we have a tool that allows us to identify trends or detect when something negative is about to occur. It’s an early detection, warning and guidance system that alerts us to critical events and helps us take timely steps to ensure the safety of our patients.” This advanced approach has not only proven effective in significantly reducing adverse events but also in streamlining care delivery and reducing the burden on healthcare professionals.

Leading the Way in Healthcare Innovation in Obstetrics

“This is the beginning of what the future of medicine will look like, and Maimonides is at the forefront,” Dr. Chudnoff said. “As we integrate and utilize computer assistance more, it will lead to better patient management and less time for patients to spend in the hospital or emergency room.”

“The success at Maimonides Medical Center serves as an example for healthcare institutions nationwide, demonstrating the invaluable role of AI in addressing critical healthcare challenges Obstetrics. MMC and healthPrecision are at the forefront of this transformative journey, committed to advancing healthcare to improve outcomes for with technological excellence,” noted Dr. Eyal Ephrat, CEO healthPrecision.

Financial Impact of Reduced Obstetrical Adverse Events with the Medical Brain:

The Medical Brain’s impact on reducing obstetrical adverse events goes beyond patient impact. Human error resulting in adverse events brings with it the risk of medical malpractice lawsuits, for which hospitals often pay out settlements to avoid protracted legal proceedings. Just one obstetrical malpractice-related settlement costs a hospital an average of \$936,843 in 2019 (\$1.32mm in 2023)ⁱⁱⁱ – reducing adverse events by 90.7% creates an environment where many such cases can be avoided. In context, in 2007 Banner Health was able to reduce its annual cash allocation for obstetrical malpractice risk by \$3.5mm (\$5.1mm adjusted for inflation)^{iv} thanks to technology developed by Dr. Eyal Ephrat, when he was the CEO of Perigen (formerly known as E&C Medical Intelligence). Dr. Ephrat also created and developed the Medical Brain.

Working with Dr. Ephrat’s solution in 2007, Medstar was also able to see significant reductions in obstetrical liability claims. “OB liability claims dropped from an expected level of 15 or more annually to low, single digits, and the cost associated with those claims dropped from annual levels of \$10-20 million [\$14.7-29.4 million adjusted for inflation] to dramatically lower levels.”^v

ⁱ [American Journal of Obstetrics and Gynecology](#)

ⁱⁱ *ibid.*

ⁱⁱⁱ [Source: Lawfirm.com/](#)

^{iv} [Healthcare IT News](#)

^v [HC Innovation Group](#)

Reducing Provider Time and Improving Efficiency Impact Analysis

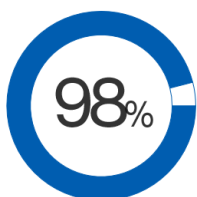
“The Medical Brain **Improves Provider Efficiency** by Handling **92%** of Patient Follow-up and Communication Tasks on Their Behalf, freeing up their time for top of license responsibilities and expanding their capacity for high priority patients.”

Provider Efficiency is a National Priority

There is a critical national focus on improving provider efficiency and satisfaction, driven by the urgent need to address operational inefficiencies and burnout in healthcare. Limited capacity, stemming from these inefficiencies, is limiting growth in provider practices, directly hindering their capacity to meet increasing patient demand and reducing their ability to grow their practices. The emphasis on enhancing efficiency extends beyond financial implications to significantly affect patient care quality and outcomes. As an example, providers can spend up to 2 hours nightly managing their in-boxes, communicating with and following-up on their patients. This is time away from their families and other priorities.

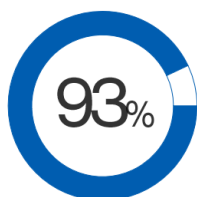
Providers Trust the Medical Brain to Handle Tasks on their Behalf

Through its unique **clinical multilateration** approach, the Medical Brain has been able to achieve a remarkable **98% specificity in its communications**,¹ which separates the Medical Brain from others in this field by making it a **reliable tool**, rather than an interesting reference which requires a second or a third check.



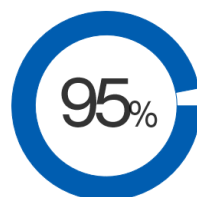
HOW SPECIFIC IS IT?

Measures the accuracy of notifications delivered to the provider and patient



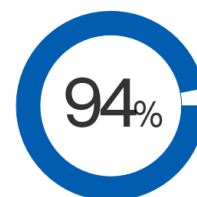
HOW SENSITIVE IS IT?

Measures how effectively Medical Brain correctly identifies a prevailing situation



PROVIDER FEEDBACK

% of providers continued use of the platform – high-level of confidence



PATIENT FEEDBACK

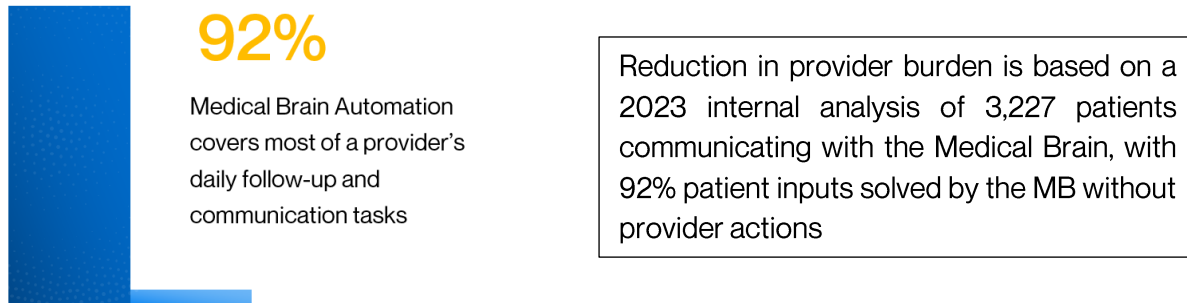
% of patients continued use of the platform – last 120 days*

¹healthPrecision operational data, analyzing ongoing performance of the Medical Brain daily
dZone for definitions of specificity and sensitivity: Specificity = (True Negative)/(True Negative + False Positive); Sensitivity = (True Positive)/(True Positive + False Negative).

*Denotes usage of Medical Brain services for chronic patients is part of ongoing management of conditions and therefore has no pre-set 'end point'; reimbursement continues while Medical Brain is being used.

The Impact

The Medical Brain's unparalleled accuracy and efficiency, combined with the trust providers have in it, has resulted in a real-world precipitous drop in provider's and staff daily follow-up and communication tasks, which helps to reduce workloads, increase capacity for seeing patients, reduce burnout and increase patient and provider satisfaction:



Financial Impact of Provider Efficiency with the Medical Brain:

Providers using the Medical Brain can see significant impact to their bottom line because of Medical Brain's efficiency. In a 150-provider practice, based on current client experience:

- Allows for the reduction of 6 full time care coordinators from staff costs, resulting in a savings of about **\$400k per year**; and
- Allows providers to see an increased number of patients. Just a 1% pickup of new patients for this practice could see **increased revenues of about \$4.5 million**.

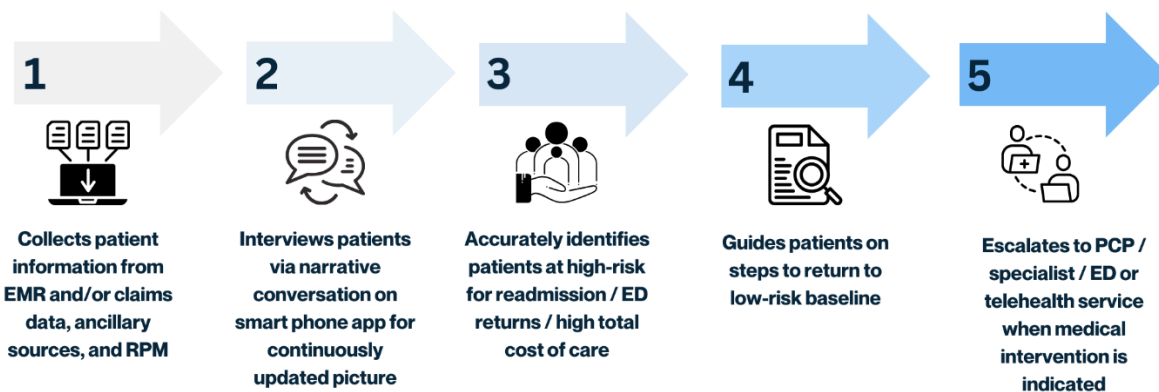
# Providers	Providers using MB	Revenue PMPM*	Revenue Capture**	Provider Panel	1% Additional Patients	Total New Patients	Total Expected New Rev***
150	138	\$692.10	20%	2,000	20	2,760	\$4.58mm

*Based on publicly available CMS data

**Assuming only 20% of billed services are collected upon

***Calculated by multiplying Revenue PMPM by Revenue Capture by Total New Patients by 12 months ($\$692.10 \times 20\% \times 2,760 \times 12$)

Comprehensive, 360 degrees, from data to action





The Medical Brain AI Powered Clinical Assistant with RPM

Providers are facing the pressure of rapidly transitioning to value-based care with risk bearing contracts, while grappling with two opposing forces - a rising patient demand for complex care and an ever-shrinking supply of clinicians. These forces have set the stage for new, automated approaches to care, leveraging AI and RPM to help providers reduce total cost of care by keeping their patients healthy while streamlining their workflow. The Medical Brain AI Clinical Assistant is helping providers succeed on all fronts with a unique combination

of AI powered clinical decision support, RPM and automation that integrates all patient data, identifies health risks, gaps, delays and errors in real-time and guides patients to take immediate corrective action. Only when needed, the Medical Brain notifies providers and orchestrates care, freeing up clinicians and office staff to expand their capacity.

Providers trust the **Medical Brain to handle their patients on their behalf.** With a unique combination clinical decision support, automation and RPM, The Medical Brain provides comprehensive, whole-person care that detects health risks early and guides patients in real-time to take corrective action, while eliminating 92% of provider follow-up burden and increasing their revenue.

“It’s not just an RPM technology, it’s a whole system of care for my patients and it streamlines my practice.”

Ohio based multi-specialty practice, 2024

This approach to whole person care stands out in the industry as a proactive AI clinical assistant with a fully integrated, stream-lined approach to care for RPM-eligible chronic care patients, leveraging complete data analysis, instantaneous interpretation, and real-time care orchestration. All of this requires no additional staff for providers and delivers maximum benefit in driving better disease control at lower costs.

In a recent industry research report,¹ RPM vendors have been found to fall short of driving expected benefits in health outcomes and cost of care because they are designed as point to point solutions. Most collect data from devices and send that raw or partially analyzed data to providers to take on the burden of data analysis, patient follow-up, and care coordination. What that means for providers is increased time spent analyzing data and calling patients to follow-up. Many practices have hired additional personnel to manage RPM, negating any benefit. What this means for patients is delayed response to troublesome trends and potential health exacerbation. As a result, providers are switching to the Medical Brain.

¹ [Peterson Health Technology Institute](#)

The Medical Brain manages the complete care experience for RPM patients and the entire RPM program on behalf of providers. This includes qualifying and enrolling patients, delivering and managing devices, collecting and interpreting data and guiding patients and providers to take immediate action. The Medical Brain helps providers capture the full benefits of 24/7 patient monitoring and real-time care orchestration, allowing them to increase their revenue while reducing their administrative burden by 92%, allowing them to expand capacity for direct care.

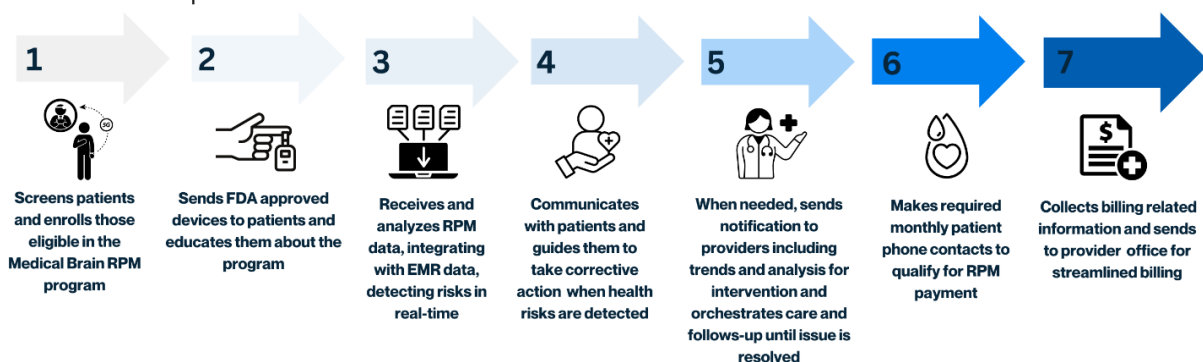
The Medical Brain RPM Program integrates:

- **RPM devices** monitor blood glucose levels, blood pressure, oxygen saturation, and weight. Devices are FDA approved and Bluetooth enabled, streaming measurements to the Medical Brain seamlessly. The Medical Brain team manages the devices on behalf of providers, and conducts calls with patients to help them set up and trouble shoot if needed.
- **The Medical Brain's AI powered data aggregation and analysis**, identifies risks and generates trends and actionable clinical insights.
- **The Medical Brain's Clinical Decision Support and Care Orchestration** guides patients to take corrective action and providers to intervene when needed.
- **The Medical Brain Team conducts required calls** on behalf of providers with patients to comply with CMS requirements.
- **Streamlined RPM Billing support** with the exact information provider offices need to submit for reimbursement.

Case Study: How the Medical Brain with RPM Works in Managing Diabetes

The Medical Brain is being used by providers and their chronic care / diabetic patients for 24/7 patient monitoring and patient-centric clinical decision support to patients with Diabetes to help them achieve targeted levels of HgbA1c, a widely used indicator of diabetes control.

Comprehensive chronic disease management with 24/7 patient monitoring, real-time identification of health deterioration and patient guidance for immediate corrective action, based on evidence-based protocols.



RPM generates **approximately \$1,390 annually per patient**.² In a provider practice of 150, this could translate to additional revenues of **about \$2.5 million** or more in additional revenues.³

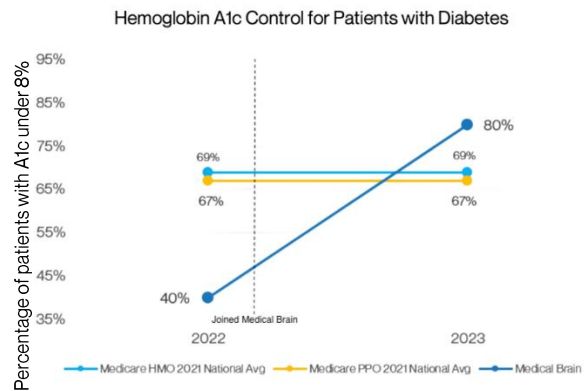
² HumHealth

³ Internal Medical Brain analysis of RPM prevalence among providers



The Impact – Real Life Example

The Medical Brain AI powered clinical digital assistant enabled a group of hard to control diabetics to rapidly achieve their HgbA1c target of less than 8%.⁴



Internal healthPrecision Analysis:

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- This means an **average reduction of \$3,800 in diabetes-related annual medical costs per patient.**⁶

Conclusion

The integration of Remote Patient Monitoring with the Medical Brain’s AI-powered platform represents a forward-thinking solution to the current challenges faced by the healthcare industry. By improving provider efficiency, reducing costs, and enhancing patient outcomes, this technology serves as a cornerstone for the next generation of healthcare services. As healthcare continues to evolve, RPM combined with intelligent analytical platforms like the Medical Brain will play a pivotal role in shaping a more efficient, proactive, and patient-centric healthcare landscape.

⁴ Internal Medical Brain analysis of Hemoglobin A1c trends.

⁵ National Diabetes Statistics Report ([cdc.gov](https://www.cdc.gov/diabetes/data/statistics-reports/))

⁶ [nih.gov](https://www.nih.gov/)