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# OEC28 Works with Epic MyChart:

## Native Bluetooth Device Support

# Presenters



## Michael Jeong

Senior Market Development Manager

Bluetooth® SPECIAL INTEREST GROUP



## Lauren Majors

Senior Program Manager – The Center for Telehealth

Cincinnati Children's®



## Bryan Potter

VP of Strategy & Operations

greater GOODS®

# About us

## Bluetooth Special Interest Group (SIG)

- Oversees Bluetooth® technology and associated trademarks
- Not-for-profit membership organization formed in 1998



Advance

**50+**

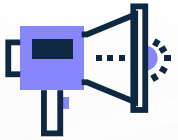
Active Bluetooth® technology enhancements underway at any given time



Protect

**79K+**

New products qualified in 2025



Promote

**5B+**

Bluetooth® enabled products ship each year

# From complexity to simplicity

# Why a common path was needed

- Personal health devices lacked a common integration path
- Proprietary connections created fragmented ecosystems
- Supporting multiple vendors required repeated custom work
- Healthcare needed one scalable approach

# GHS: Common language for health sensors

Generic Health Sensor Service + Profile



## Generic

Supports a wide range of health-related observations.



## Extensible

New observation types can use new codes without changing the protocol.



## Implementable

Designed for straightforward collection and forwarding over Bluetooth GATT*

**Generic Attribute Profile*

# What makes GHS different

A reusable meaning layer, not another sensor-by-sensor integration



## Recognized nomenclature

IEEE 11073 codes identify observation types.



## Protocol-independent model

A common information structure keeps health data consistently represented across systems.



## Healthcare mapping

Observations can map to HL7 FHIR and HL7 V2 pathways.

# 128M

Bluetooth patient monitoring devices will ship by 2030

(growing from 80M)

# 408M

Bluetooth wearables that sense health will ship by 2030

(smartwatches, jewelry, smart glasses, hearables, fitness trackers, smart clothing)

**SOURCE:** ABI Research, 2026

ONE GATEWAY

ONE PROTOCOL

HEALTHIER WORLD

# From connected devices to connected healthcare

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# REMOTE PATIENT MONITORING

## AT CINCINNATI CHILDREN'S HOSPITAL

# About Us

- Cincinnati Children's Hospital is one of the top pediatric hospitals in the nation in U.S. News & World Report's Best Children's Honor Roll
- Est. 1883 Full-service, nonprofit, comprehensive pediatric health system consisting of more than 50 unique locations
- Top 5 largest U.S. children's hospital with 789 registered beds (including 170 IP and residential psychiatric beds) treating patients from all 50 states and dozes of countries

## Nationally Ranked

BEST CHILDREN'S HOSPITALS
U.S.News & WORLD REPORT
HONOR ROLL
2025-2026

### Ranked in All 10 Specialties

| | | | | |
|---|---|---|---|---|
| #1 CANCER | #1 DIABETES & ENDOCRINOLOGY | #1 GASTROENTEROLOGY & GI SURGERY | #2 PULMONOLOGY & LUNG SURGERY | #3 ORTHOPEDICS |
| #4 NEONATOLOGY | #4 UROLOGY | #5 NEUROLOGY & NEUROSURGERY | #6 NEPHROLOGY | #11 CARDIOLOGY & HEART SURGERY |

**Top 50**

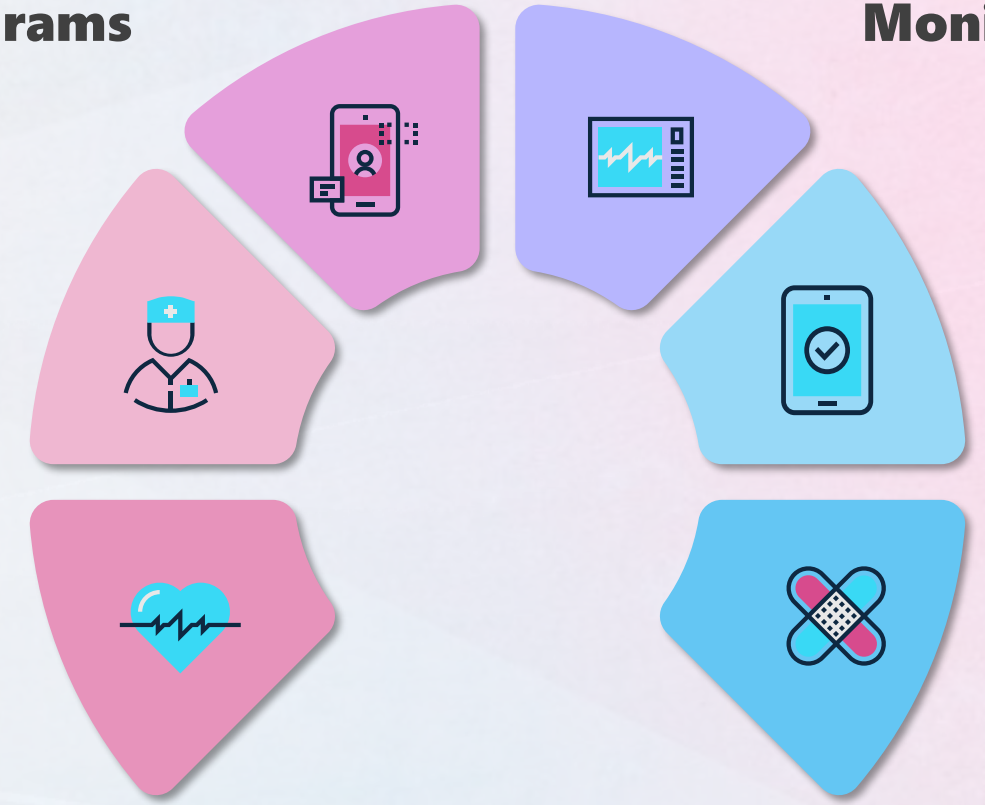
**PEDIATRIC & ADOLESCENT BEHAVIORAL HEALTH**
*U.S. News & World Report* recognizes the best pediatric mental and behavioral health programs across the country with no numerical ranking. Cincinnati Children's has been named among the top 50 programs in the country.

2025-2026 Best Children's Hospitals Rankings — *U.S. News & World Report*

# RPM at Cincinnati Children's Hospital

**27 Active RPM Programs**

**Average 100 days of Monitoring**



**Across 14 Specialty Divisions**

**70% Successful Graduation Rate**

**800+ Patients Per Month**

**Many Patients Enrolled for Complex Conditions**

# A CONNECTED WORKFLOW: BEDSIDE TO HOME

**Workflow**



Pt arrives at CCHMC – admitted to NICU



Pt is enrolled in RPM prior to d/c with infant scale



RPM RNs manage pt and escalate issues per response plan

**Patient Admission** → **Patient Discharge** → **Transition Home** → **Active Monitoring** → **RPM Discharge**



MD conducts E/M and orders RPM



Pt completes clinical and biometric check-ins at home



Pt remains on RPM until meets graduation criteria

**Enroll at Bedside**

**Capture Data at Home**

**Monitor and Respond**

**Continuity of Care**

# RPM PROGRAMS AT CCHMC

| Divisions | Programs Offered |
|---|---|
| **Cardiology** | ACHD High Risk for Heart Failure, Cardiomyopathy, Cardiac Tube Weaning, Heart Tx, VAD, Poor Weight Gain |
| **CHSN** | Poor Weight Gain |
| **Complex Care** | Poor Weight Gain |
| **Community (Outside CCHMC Network)** | Asthma, Poor Weight Gain |
| **Endocrinology** | T1D Post DKA |
| **Genetics** | Cleft Infants |
| **Gen Peds** | Poor Weight Gain, Asthma Re-Vamp (with 3 new phases) |
| **Gastroenterology** | Adv Nutrition TPN, Interdisciplinary Feeding Team, Poor Weight Gain, Short Gut Non-TPN, Short Gut TPN Dependent |
| **Hospital Medicine** | RPM+ Bronchiolitis |
| **Neonatology** | Feeding Tube Dependent, Concern for Inadequate Weight Gain, High Calorie Formula Dependent, Oxygen Dependent, NICU Bronchopulmonary Dysplasia - Expansion |
| **Nephrology** | Peritoneal Dialysis |
| **Neurology** | Ketogenic |
| **Pain** | Post Op Knee/Shoulder Repair with Nerve Catheter, PostOp Pectus Excavatum Repair with Nerve Catheter |
| **Pulmonology** | Cystic Fibrosis, Pulm Vent Wean |

# THE PROBLEM



Cincinnati Children's was operating one of the largest pediatric Remote Patient Monitoring programs in the country when **our RPM platform vendor announced it would sunset the solution**.



We had approximately **eight months to transition all clinical programs** without interrupting patient care.



It was an enterprise migration affecting patients, clinicians, workflows, devices, reporting, and reimbursement models simultaneously **and was the first pediatric system to deploy this specific model in Epic with no BT GHS 1.0 devices on the market available for use**

# DEVICE PAIN POINT



Without BT GHS 1.0, CCHMC was facing a **distinct integration** for each individual device across multiple vendors



Infant scales, adult scales, blood pressure monitors, pulse oximeters, and future devices each carried the risk of **separate development, testing, support, and maintenance work**



A device-by-device strategy would have created **significant cost, operational complexity, and implementation risk**. We simply did not have time to build unique solutions for every program while simultaneously migrating the entire RPM ecosystem.

# ENTERPRISE SOLUTION



**Our goal was not to solve connectivity for one clinic, one device, one point solution.** It was to create a sustainable enterprise platform capable of supporting current and future RPM programs.



Solving connectivity once at the enterprise level creates **exponential value.** Every future program benefits from the same infrastructure, governance, support model, and patient experience.



**Standards-based integration transforms** device onboarding from a custom technology project into a scalable operational process.

# IDEATION



## RELATIONSHIP

- We already had an established relationship with Greater Goods, but previous partnership was stalled due to integration challenges
- BT GHS 1.0 changed the conversation to "how might we?"



## SECURITY

- For hospitals, security level 4 means greater confidence that data originates from a trusted devices and reaches clinical systems through a secure, standards-based pathway, increasing confidence



## NOT CONSUMER

- Apple Health and Google Fit connections don't work for PEDS as the patient is not the person managing the device or the account
- Multiple patients (siblings or twins) are not supported on 1 account
- Proxy access

# CONNECTIVITY CREATES CLINICAL, OPERATIONAL, AND FINANCIAL IMPACT



The value is not simply that a device connects. The value is that clinically relevant data reaches the care team within the workflow where monitoring, escalation, documentation, and care decisions already occur.

## Faster Clinical Visibility

- Connected data vs. Self Reported
- Meets compliance standards
- Thresholds trigger escalations

## Better Data Confidence

- Automatic readings mean more accurate data
- Automatic transmission aids families who speak languages other than English
- Increased patient and provider satisfaction

## Scalable Foundation

- One methodology
- Multiple programs
- Multiple divisions
- Multiple diagnosis

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# GREATER GOODS

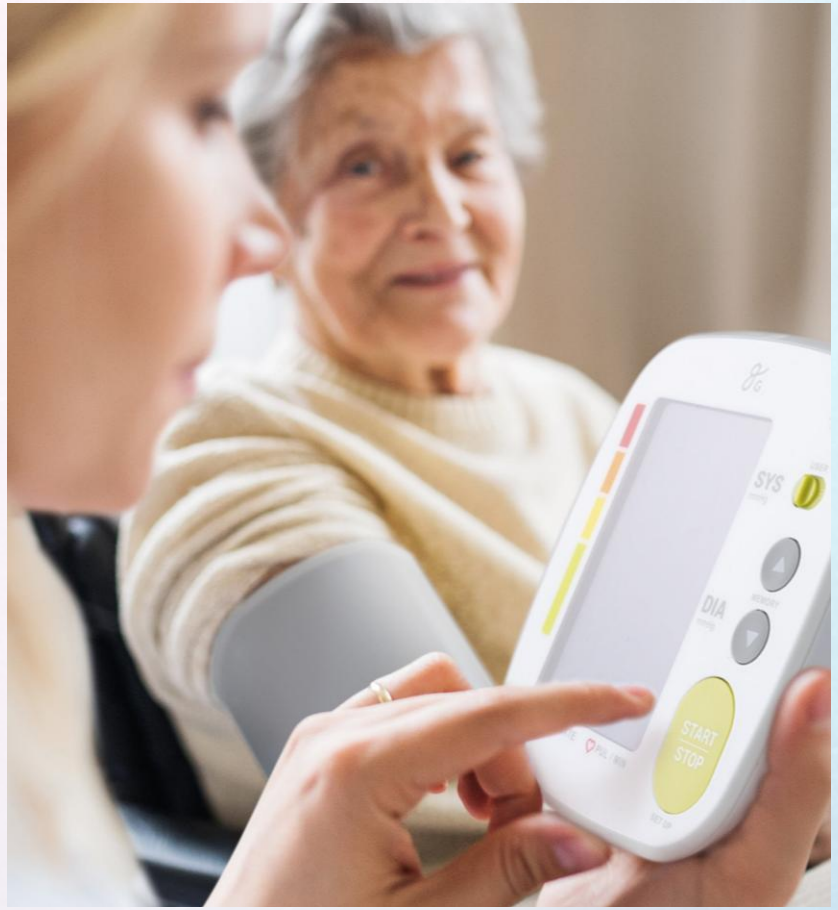
# About Us

greater GOODS®

## A global team behind the whole product

**20+ YEARS**

Design, hardware, software,
manufacturing, and customer support.



**105**

DAYS
Average routine order
PO to our warehouse

**300**

DAYS
Average development project
Ideation to our warehouse

# The Opportunity to Work Together

Greater Goods and Cincinnati Children's

- Epic announced native MyChart support for GHS
- The RPM platform's sunset prompted new conversations with Lauren
- GHS gave us a way past the earlier development barrier

# GHS gave us a playbook



## A clear standard

A defined framework reduced ambiguity in Bluetooth implementation.



## Device focus

Most custom software integration work fell away.

Our focus shifted to the device and firmware.



## Shared testing

One specification gave Greater Goods, Cincinnati Children's, and Epic a common reference.

# Project Timelines

**Late January**
Conversations begin

**February**
Chinese New Year limits availability

**Late February**
Project kickoff

**End of May**
Initial request appeared unworkable

**June 30**
Required arrival at CCHMC

# The work inside that window



## Bluetooth chipset

Upgrade the chipset for GHS security and procure the new components.



## Firmware

Implement the Bluetooth SIG GHS profile and meet Epic's MyChart spec for pairing, readings, and delivery confirmation.



## New SKU

Create the updated baby scale product configuration.



## Regulatory work

Complete testing and the required paperwork.



## Production

Coordinate manufacturers and run work in parallel.



## Delivery

Plan freight around arrival at CCHMC by June 30.

# Testing the way people use the scale

Greater Goods + Cincinnati Children's + Epic

- Epic supported MyChart setup and testing through Vendor Services
- A scale going to sleep before first pairing revealed a firmware issue
- The scale appeared connected in MyChart, but readings weren't coming through
- A workaround kept impacted scales working while we developed a firmware update

# Delivered in 116 days

**105**

DAYS
Average routine order
To our warehouse

**116**

DAYS
Development + delivery
To CCHMC's warehouse

**300**

DAYS
Average development
To our warehouse

# Where we go next with GHS

## One standard for future devices

GHS across our Bluetooth health devices

## Additional testing

Through Epic's optional Vendor Services program

## Works with Epic MyChart badge

A clear sign of independently validated MyChart compatibility

# When a standard exists, follow it.

A shared foundation for the next device

# GHS INFANT SCALE

**368 INFANT DEVICES DELIVERED AT GO LIVE**

**1,500 INFANT DEVICES DELIVERED ANNUALLY**




works with Epic MyChart

# RPM PROGRAMS USING INFANT SCALE

| Divisions | Programs Offered |
|---|---|
| **Cardiology** | ACHD High Risk for Heart Failure, Cardiomyopathy, Cardiac Tube Weaning, Heart Tx, VAD, Poor Weight Gain |
| **CHSN** | Poor Weight Gain |
| **Complex Care** | Poor Weight Gain |
| **Community (Outside CCHMC Network)** | Asthma, Poor Weight Gain |
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| **Pulmonology** | Cystic Fibrosis, Pulmonary Vent Wean |

# Impact *and* Outcomes

Those active in our NICU and Poor Weight Gain Populations and using an infant scale to monitor:

**↓53%**

Lower risk of unplanned hospital admissions or ED use among studied NICU follow-up patients

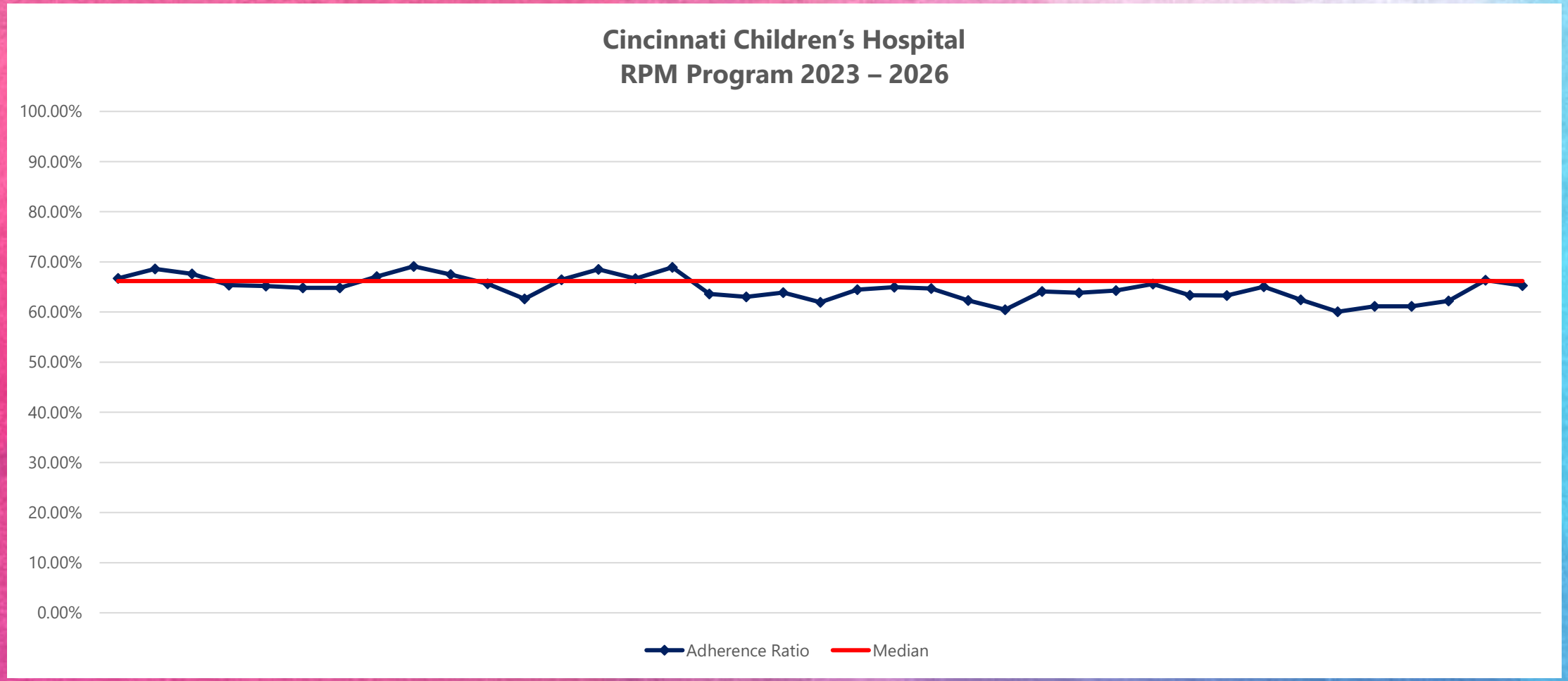
**↑80%**

vs. 50% recommended well-child visit attendance among studied RPM infants

**↓100%**

Elimination of in-person clinic weight checks enrolled in PWG

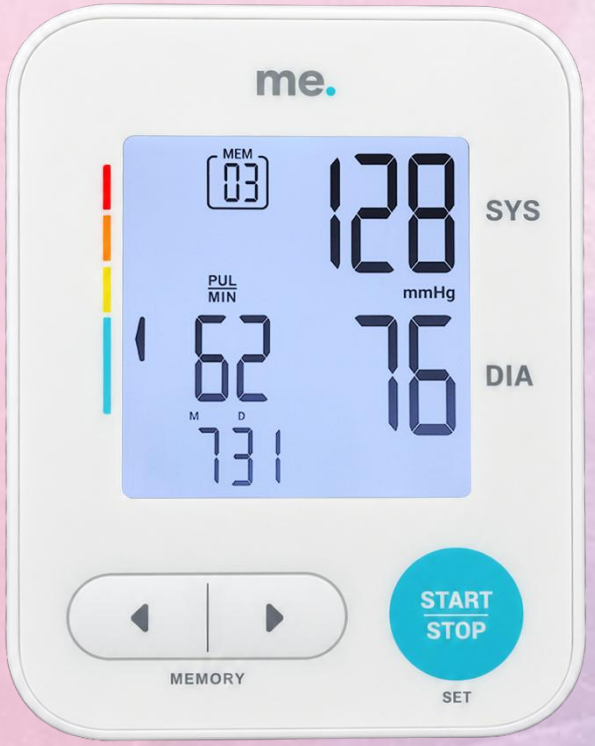
# RPM ADHERENCE RATES



# GHS DEVICES – CY27 DEPLOYMENT




ADULT SCALE



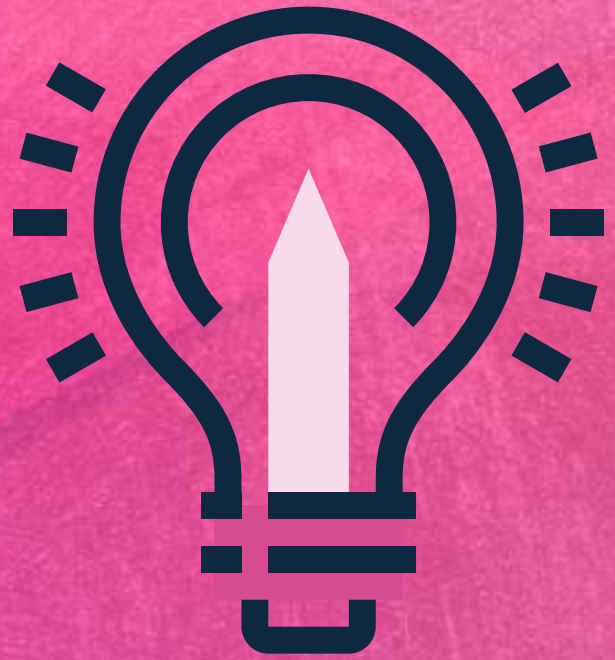

BLOOD PRESSURE MONITOR




PULSE OX

# BIG IDEA

## Throughline: a model for how standards-based development can successfully work



- Bluetooth SIG established the shared standard
- Device manufacturers implemented it
- Healthcare teams defined the clinical requirements
- Epic enabled the platform experience
- **Together, these groups translated a standards-based idea into real-world care workflows**

# Build what comes next :

participate in standards development—and ensure pediatric needs are represented.

# Contacts & Info

Generic Health Sensor (GHS) Profile

Bluetooth® Generic Health Sensor Device Integration with MyChart


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# Q&A

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