



Increasing Continuous Glucose Monitor Utilization Among Children With Type 1 Diabetes

A How-To Guide



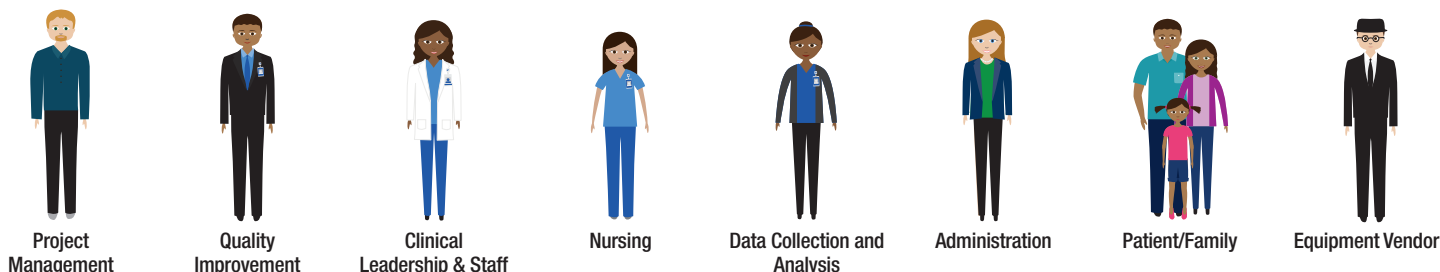
NATIONWIDE CHILDREN'S®
When your child needs a hospital, everything matters.

Starting a Quality Improvement (QI) Project

Endocrinologists and quality improvement experts at Nationwide Children’s Hospital collaborated to drive increased utilization of continuous glucose monitors among type 1 diabetes patients. Through careful planning, broad involvement from key stakeholders—including vendors—and progressive adjustments and iterations, they achieved a utilization rate more than double their initial goal. Consider adapting the strategies below to the needs of your own clinic to help increase CGM use among your T1D patient population.

SELECT A TEAM

Identify team members to own the project from all stakeholder groups. Select leaders for:



COLLECT BASELINE DATA

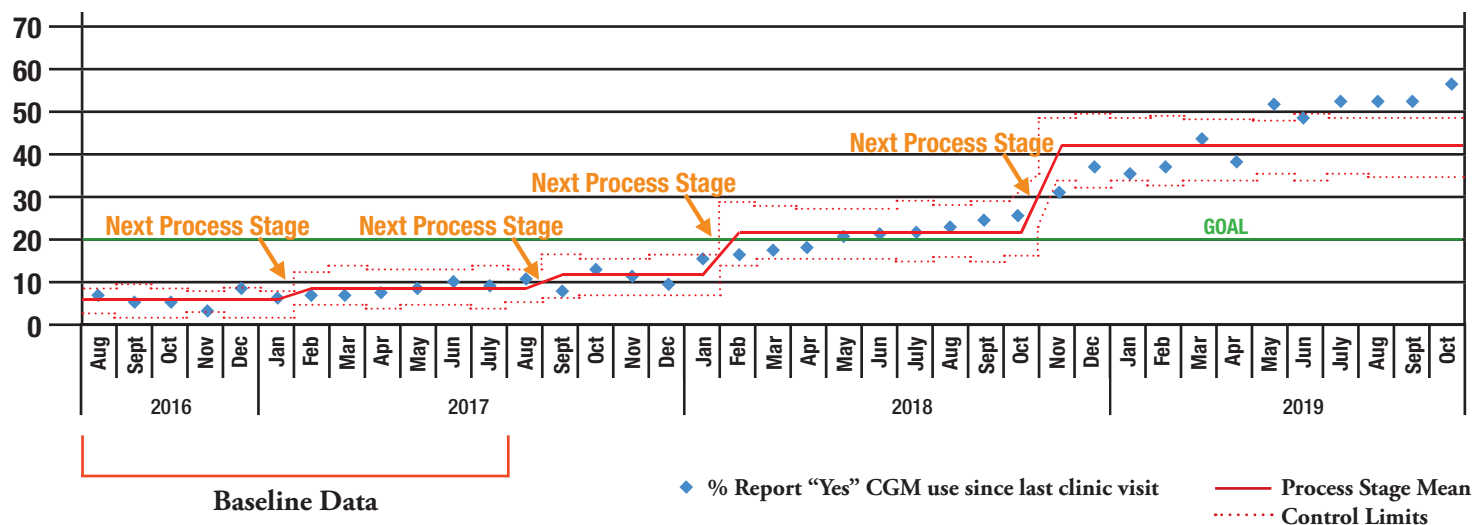
Obtain at least 12 months of baseline data on continuous glucose monitoring (CGM) use and A1c values in the type 1 diabetes (T1D) population. Identify a target with specific, realistic goals.

Sample Aim: “Increase percent utilization of CGM in T1D patients from a baseline of X% to Y% by [date, a few months to a year away] and sustain for 12 months.”

TRACK AND SHARE

Continue to track data monthly and note timepoints when changes were implemented. Share the clinic’s progress with key internal stakeholders, and set new goals once the target is achieved.

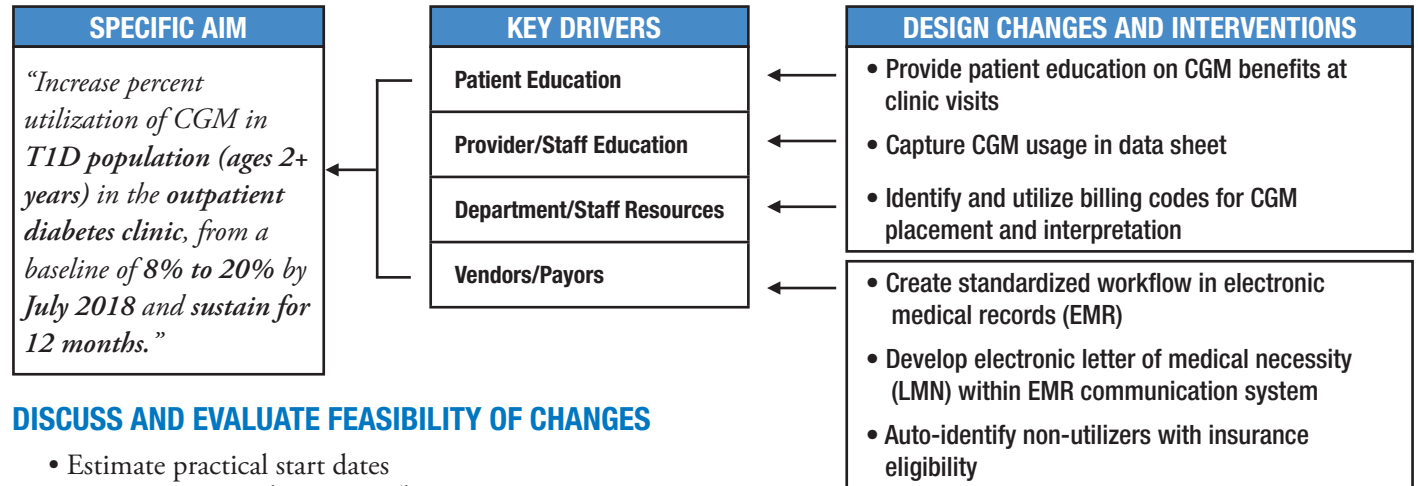
Percent Utilization of CGM Pre- and Post-Implementation of Quality Improvement: T1D Patients ≥ 2 years



CHOOSE INTERVENTIONS

Generate a list of interventions that you believe can drive an increase in CGM use, making sure to align key drivers with each one.

SAMPLE KEY DRIVER DIAGRAM



DISCUSS AND EVALUATE FEASIBILITY OF CHANGES

- Estimate practical start dates
- Estimate costs and resources (human resources, time, electronic, etc.) required
- Consider ranking each by impact on CGM use and effort to implement

PDSA: PLAN → DO → STUDY → ACT

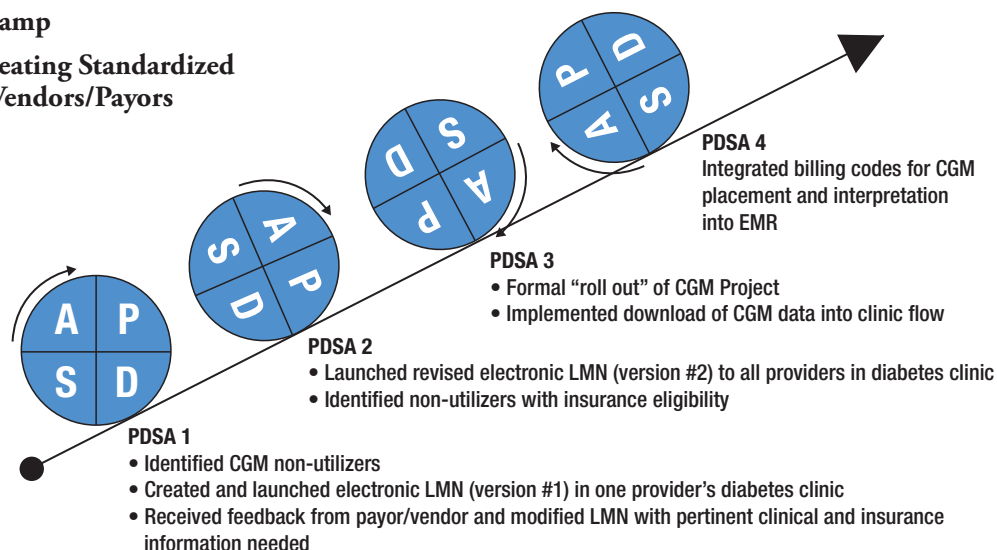
Select the most impactful and practical changes to make.

PLAN	<ul style="list-style-type: none"> • Map the desired new workflow surrounding CGM promotion and prescription. • Inform the entire clinical and support staff of the initiative, its target and timeline, as well as their roles and responsibilities in implementing the selected changes.
DO	<ul style="list-style-type: none"> • Enact the changes, using a multi-phase rollout of the plan if necessary.
STUDY	<ul style="list-style-type: none"> • Revise the process as needed, then announce and implement the updated workflows.
ACT	<ul style="list-style-type: none"> • Monitor progress and speak with stakeholders to identify pain points or inefficiencies.

Start a PDSA "ramp" to make continuous improvements: implement a new PDSA plan for each element of your project until you reach your goal.

Sample PDSA Ramp

Intervention: Creating Standardized Workflow with Vendors/Payers



LESSONS LEARNED

- ☑ **EMR changes are worth the wait.** They may need to be implemented in phases, but these changes can lead to large gains with little impact on staff workload. Opportunities include:
 - Including billing codes in EMR
 - Automating LMNs through work with CGM vendors
 - Updating EMR workflows
 - Automating identification of eligible non-users
- ☑ **Be patient.** It takes time to fully implement a new patient education plan, but increased awareness among clinicians alone may lead to improvements.
- ☑ **Address process-related problems as they arise.** New workflows sometimes create new bottlenecks or administrative challenges (such as downloading CGM information from the cloud and then having to transfer it to EMR). Look for ways to resolve these issues rather than scrapping the project.
- ☑ **Use an insurance reimbursement grid.** These can help identify each major insurer's specific coverage criteria, documentation requirements, and components covered so that eligibility and documentation needs are easily identifiable for each potential CGM patient.
- ☑ **Continuous data collection and analysis is critical to understanding and communicating progress.**
- ☑ **Communicate with stakeholders—including vendors—early and often.** Getting feedback from them before committing to a plan helps avoid roadblocks and identify realistic timelines for implementing changes.
- ☑ **Celebrate and share small successes throughout the process.**
- ☑ **Don't stop once you have achieved your first target.** Set new goals to drive continuous improvement. Nationwide Children's had an initial goal of 20% CGM utilization, but has achieved more than 50% in continual project iterations.
- ☑ **Use project gains to improve other areas of patient care.** Once new EMR or workflow processes exist, they can be adapted for other quality improvement projects, such as insulin pump LMN generation.
- ☑ **Think big.** Consider how sharing your data and successful QI techniques could support advocacy efforts to improve child health both within and beyond your institution

Referrals and Consultations

Online: [NationwideChildrens.org](https://www.NationwideChildrens.org)

Phone: (614) 722-6200 | Fax: (614) 722-4000

Physician Direct Connect Line for 24-hour urgent physician consultations: (614) 355-0221 or (877) 355-0221.

