

# PRACTICE INSIGHTS

MAY 2022



## EXPANDING ACCESS TO CONTINUOUS GLUCOSE MONITORING TECHNOLOGY IN COMMUNITY PHARMACIES

DEVELOPED BY THE AMERICAN PHARMACISTS ASSOCIATION



SUPPORTED BY





# Contents

- Introduction** ..... 1
- The Role of CGM in Diabetes Care** ..... 2
  - CGM Device Overview ..... 2
  - Evidence Supporting CGM ..... 3
- Third-Party Payment for CGM** ..... 4
- Insights on CGM in Community Pharmacy** ..... 5
- Insights on Scope of Practice** ..... 6
- Insights on Steps for Expanding Access** ..... 7
  - Billing and Compensation Models ..... 7
  - Expanding Scope of Practice to Facilitate CGM Services in Community Pharmacies ..... 9
  - Professional Education and Resources ..... 9
- Summary** ..... 11
- References** ..... 11

## APhA Foundation

The American Pharmacists Association Foundation gratefully acknowledges the following individuals who served as participants, speakers, and moderators.

This publication was developed with funding and support from The Leona M. & Harry B. Helmsley Charitable Trust as part of a collaboration with APhA and the APhA Foundation. APhA retained full editorial control over the final content of this resource.

### Continuous Glucose Monitoring (CGM) Roundtable

#### Speakers:



**Diana Isaacs, PharmD, BCPS, BCACP, BC-ADM, CDCES, FADCES, FCCP**  
Endocrine Clinical Pharmacy Specialist, CGM & Remote Monitoring Program Coordinator, Cleveland Clinic Endocrinology & Metabolism Institute



**Sara (Mandy) Reece, PharmD, CDCES, BC-ADM, BCACP, FADCES** Vice Chair & Associate Professor, Pharmacy Practice, Philadelphia College of Osteopathic Medicine in Georgia



**Allie Jo Shipman, PharmD, MBA**  
Director of State Policy, National Alliance of State Pharmacy Associations



**Rebecca P. Snead, BPharm, CAE**  
FAPhA Executive Vice President & CEO, National Alliance of State Pharmacy Associations

#### Moderators:



**Benjamin M. Bluml, BPharm** Senior Vice President, Research & Innovation, American Pharmacists Association Foundation



**Andi Lane Clark, PharmD** Associate Director, Corporate Alliances, American Pharmacists Association



**John Little, PharmD** Research & Innovation Project Management Specialist, American Pharmacists Association Foundation

**Participants:**

**John O. Beckner, BPharm** Senior Director, Strategic Initiatives, National Community Pharmacists Association



**Lynette R. Bradley-Baker, BPharm, PhD, CAE** Senior Vice President of Public Affairs & Engagement, American Association of Colleges of Pharmacy



**Stacey Emmons, PharmD** Director, Patient Outcomes Performance, Walgreens



**Stacey M. Frede, PharmD, BCACP, CDE** Manager, Clinical Program Development, Kroger Health



**Tim Frost, PharmD** Deputy Administrator, Idaho Division of Occupational & Professional Licenses



**Brigid K. Groves, PharmD, MS** Senior Director, Practice & Professional Affairs, American Pharmacists Association



**John Kirtley, PharmD** Executive Director, Arkansas State Board of Pharmacy



**Michael Rakotz, MD, FAHA, FAAFP** Vice President, Health Outcomes, American Medical Association



**Erin Shaal, PharmD** Vice President, Pharmacy Procurement, Specialty & Patient Care Services, Albertsons Companies



**Steven Simenson, BPharm, FAPhA, FACA, DPNAP** CEO & Managing Partner, Goodrich Pharmacy



**Kenneth Snow, MD, MBA** Medical Director, Chronic Condition Team, CVS Health



**Kate Thomas, MA** Chief Advocacy & External Affairs Officer, Association of Diabetes Care & Education Specialists

**The Leona M. & Harry B. Helmsley Charitable Trust**

**Laurel Koester, MPH**  
Program Officer

**David Panzirel,**  
Trustee

**Ben Stang, MPA**  
Associate Program Officer

**Medical Writer:**

**Judy Crespi-Lofton, MS**  
President, JCL Communications, LLC

# Introduction

Diabetes affects more than 10% of the U.S. population.<sup>1</sup> Unfortunately, less than half of individuals with diabetes achieve glycemic control targets.<sup>2</sup> Poor glycemic control is associated with poor outcomes and substantial burden of morbidity and mortality. There are numerous reasons why patients struggle to achieve glycemic control; one important factor is the complexity of managing the dosing and timing of an array of injectable and oral medications to balance glucose level changes that occur in response to meals and physical activity. Further, some patients with diabetes, particularly those with type 1 diabetes (T1D) as well as those with type 2 diabetes (T2D) requiring insulin therapy, must regularly make dosing decisions to carefully manage their glucose levels 24 hours a day. Failure to dose insulin properly can be potentially life threatening; thus, careful monitoring of blood glucose levels is required.

Continuous glucose monitoring (CGM) technologies can provide patients, along with their care team (pharmacists, physicians, and other health care providers), with detailed data on glucose levels and trends. CGM devices track glucose levels in interstitial fluid and provide data regarding current glucose levels as well as information about predicted trends in glucose levels. CGM is able to better assess glycemic variability and patterns than the traditional fingerstick method of blood glucose monitoring (BGM). BGM provides more information about glycemic variability than A1C, but even this approach captures only a few time points throughout the day. CGM is increasingly being recommended for patients to gather additional actionable information about blood glucose levels. The data generated by CGM can be used to inform therapeutic adjustments and facilitate improved patient outcomes. Although CGM is a valuable tool, it is underutilized in the care of patients with diabetes.

Uptake of CGM technology has expanded in recent years, especially since Medicare began providing coverage for CGM devices in 2017. However, many important barriers to use remain. In particular, a lack of widespread patient access to providers who offer CGM services impedes CGM use. To explore how to utilize community pharmacists to expand patient access to CGM, the American Pharmacists Association (APhA) Foundation convened a virtual roundtable on November 2, 2021. The goals of the roundtable were to:

- Establish guiding principles for the integration of CGM into community pharmacy practice.
- Provide insights and perspectives on the CGM landscape as it relates to pharmacists.
- Discuss expanding patient access, education, and management as well as pharmacists' scope of practice and payment models.

Roundtable participants included experts from diverse pharmacy-related backgrounds, including those with clinical, policy and regulatory, and educational experience.

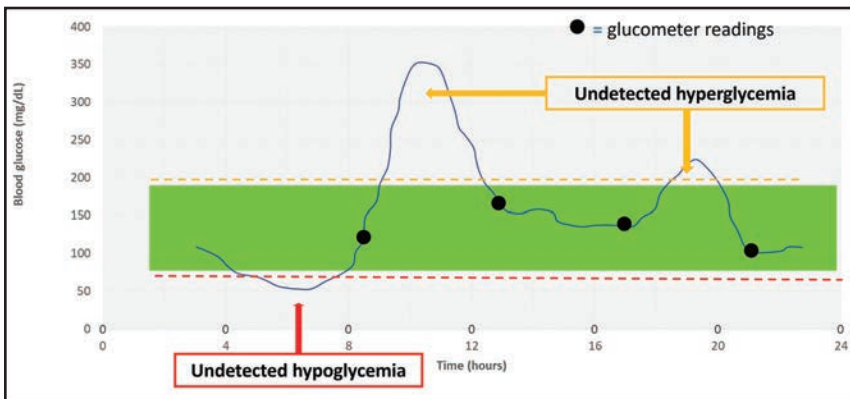
# The Role of CGM in Diabetes Care

For many years, A1C has been considered the gold standard for assessing blood glucose control. However, A1C does not measure the variability of blood glucose levels throughout the day and does not provide data about how often a patient’s blood glucose is outside the recommended range. Time spent out of range has been linked to long-term health complications.<sup>3</sup> Because glucose management is dynamic, more frequent monitoring provides a more complete picture of blood glucose control. As shown in Figure 1, CGM can reveal undetected hyperglycemia and hypoglycemia that could be

missed with BGM. To address the need for a more complete picture, additional measures such as time in range (TIR) and glycemic variability are increasingly used to assess the quality of overall glycemic management. TIR is usually represented as the percent of time per day spent in the target range of 70–180 mg/dL. TIR is closely correlated with A1C; a TIR of 70% corresponds to an A1C of 6.7%, and each 10% change in TIR is associated with 0.8% change in A1C.<sup>4</sup> Thus, a patient can have an A1C at target but still experience a substantial amount of hypoglycemia and hyperglycemia (Figure 2).<sup>5</sup>

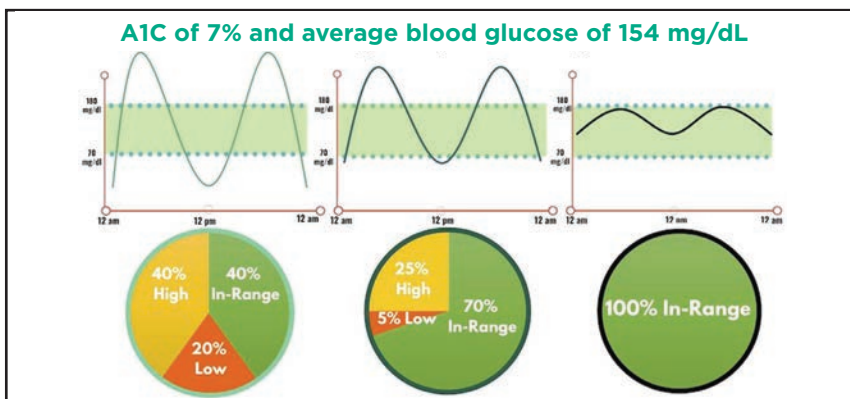
Individuals with greater glycemic variability and less TIR have an increased risk for hypoglycemia and diabetic ketoacidosis. Hypoglycemia can lead to poor glucose management if treatment intensity is decreased to minimize hypoglycemia risk. Both severe hypoglycemia and diabetic ketoacidosis can result in emergency department use and hospitalizations. Patients with T1D, or T2D who use insulin, are particularly at risk for these adverse outcomes. Additionally, hypoglycemia is associated with poor patient satisfaction and worse adherence to medications. Interventions that reduce glycemic variability can decrease the risk of hypoglycemia.<sup>6</sup> Emerging research also indicates that increased TIR reduces the risk for long-term complications of diabetes.<sup>3</sup>

**Figure 1. Undetected Hyperglycemia and Hypoglycemia**



Source: Reprinted with permission from John Moorman, PharmD, BCPS.

**Figure 2. A1C Does Not Correlate With Glycemic Variability and Time in Range**



Source: Reference 5. Reprinted with permission from diaTribe.

## CGM Device Overview

There are two types of monitors for CGM—professional and personal. Professional CGM devices are owned by a health care provider or health care center and are worn by a patient for a fixed period of time. After this period, the health care provider reviews the patient’s data and uses the information to adjust the diabetes management regimen. Personal CGM devices are worn by patients on an ongoing basis and patients are able to use the data from these devices in real time to inform self-management decisions. Health care providers can also access data from personal CGM to inform clinical decision making. In some cases, personal CGM devices are integrated with insulin pumps that are designed to release appropriate amounts of insulin in response to changing glucose levels. Real-time CGM systems measure and display glucose levels continuously.

Intermittently scanned CGM systems measure glucose levels continuously but only display glucose values when swiped by a dedicated handheld reader or a smartphone app.<sup>7</sup>

CGM use has accelerated in recent years due to technological advances and expanding third-party payer coverage. The first professional CGM device was introduced in 1999 and the first personal CGM was introduced in 2004. CGM devices integrated with insulin pumps were first introduced in 2006, and CGM devices that could transmit data to smartphones were approved in 2015. Initially, CGM was used as an

adjunct to information from BGM. In 2016, the first non-adjunctive CGM was approved, meaning that patients could use CGM in lieu of BGM and without the need for a confirmatory fingerstick. Medicare first began paying for CGM in 2017. In 2012, only 7% of patients in the largest registry of patients with T1D used CGM, which has grown significantly but is still under-utilized, with 30% of the same cohort using CGM by 2018.<sup>8</sup>

### Evidence Supporting CGM

CGM is a very effective tool for helping to improve diabetes control. Compared with BGM, CGM has been shown to decrease A1C, decrease

glycemic variability, increase TIR, decrease time in hypoglycemia, and decrease hypoglycemic events.<sup>9</sup> Benefits have been found across patient populations (e.g., T1D, T2D, adults, children, pregnant patients) and with personal and professional CGM.<sup>9</sup> Importantly, CGM has been found to be of benefit for patients who use insulin, regardless of whether they have T1D or T2D. Current Standards of Medical Care in Diabetes from the American Diabetes Association (ADA) state that CGM devices should be considered from the outset of the diagnosis of diabetes for all patients who require insulin therapy.<sup>7</sup>

**Table 1. ADA and AACE Guidelines Pertaining to CGM**

American Diabetes Association	American Association of Clinical Endocrinology
<ul style="list-style-type: none"> <li>Real-time CGM or isCGM should be offered for diabetes management in adults with diabetes on multiple daily injections or CSII who are capable of using devices safely (either by themselves or with a caregiver). The choice of device should be made based on patient circumstances, desires, and needs.</li> <li>Real-time CGM or isCGM can be used for diabetes management in adults with diabetes on basal insulin who are capable of using devices safely (either by themselves or with a caregiver). The choice of device should be made based on patient circumstances, desires, and needs.</li> <li>Real-time CGM or isCGM should be offered for diabetes management in youth with T1D on multiple daily injections or CSII who are capable of using the device safely (either by themselves or with a caregiver). The choice of device should be made based on patient circumstances, desires, and needs.</li> <li>Real-time CGM or isCGM should be offered for diabetes management in youth with T2D on multiple daily injections or CSII who are capable of using devices safely (either by themselves or with a caregiver). The choice of device should be made based on patient circumstances, desires, and needs.</li> <li>In patients on multiple daily injections and CSII, real-time CGM devices should be used as close to daily as possible for maximal benefit. isCGM devices should be scanned frequently, at a minimum once every 8 hours.</li> <li>When used as an adjunct to pre- and postprandial blood glucose monitoring, CGM can help to achieve A1C targets in diabetes and pregnancy.</li> <li>Periodic use of real-time CGM or isCGM or use of professional CGM can be helpful for diabetes management in circumstances where continuous use of CGM is not appropriate, desired, or available.</li> </ul>	<ul style="list-style-type: none"> <li>CGM is strongly recommended for all persons with diabetes treated with intensive insulin therapy.</li> <li>CGM is recommended for all individuals with problematic hypoglycemia.</li> <li>CGM is recommended in children and adolescents with T1D.</li> <li>CGM is recommended for pregnant women with T1D and T2D treated with intensive insulin therapy.</li> <li>CGM is recommended for women with GDM on insulin therapy.</li> <li>CGM may be recommended for women with GDM not on insulin therapy.</li> <li>CGM may be recommended for individuals with T2D treated with less intensive insulin therapy.</li> </ul>

***CGM has been found to be of benefit for patients who use insulin, regardless of whether they have T1D or T2D.***

AACE = American Association of Clinical Endocrinology; ADA = American Diabetes Association; CGM = continuous glucose monitoring; CSII = continuous subcutaneous insulin infusion; GDM = gestational diabetes mellitus; isCGM = intermittently scanned continuous glucose monitoring; T1D = type 1 diabetes; T2D = type 2 diabetes.

Source: References 7 and 11.

Real-world data from the T1D Exchange observational study of 11,469 people with T1D illustrate benefits as well as disparities in access to CGM. Of these patients, 48% were CGM users. The median A1C was 7.7% in CGM users compared with 8.4% in non-users. Rates of diabetic ketoacidosis and severe

hypoglycemia were significantly higher in non-users. Rates of CGM use were highest in non-Hispanic whites (50%), compared with 18% in Blacks, and 38% in Hispanics. Patients with private insurance were more likely to use CGM (57%), than those with public insurance (33%).<sup>10</sup>

Numerous practice guidelines recommend the use of CGM, including standards of care from ADA, American Association of Clinical Endocrinology (AACE), and American College of Endocrinology (ACE).<sup>7,11,12</sup> Recommendations from ADA and AACE are shown in Table 1.<sup>7,11</sup>

## Third-Party Payment for CGM

Insurance coverage for CGM varies among payers, and coverage requirements change frequently. In general, Medicare coverage for CGM is through the durable medical equipment benefit.

In 2017, Medicare began offering coverage for CGM for patients with T1D and T2D on intensive insulin therapy. As of 2021, Medicare provides coverage for therapeutic CGM devices and related supplies are covered by Medicare when all of the following coverage criteria are met:<sup>13</sup>

1. The beneficiary has diabetes mellitus.
2. The beneficiary is insulin-treated

with multiple (3 or more) daily administrations of insulin or a continuous subcutaneous insulin infusion pump.

3. The beneficiary's insulin treatment regimen requires frequent adjustment by the beneficiary on the basis of BGM or CGM testing results.
4. Within 6 months prior to ordering the CGM, the treating practitioner has an in-person visit with the beneficiary to evaluate diabetes control and determined that criteria (1 through 3) above are met.
5. Every 6 months following the initial prescription of the CGM, the treating practitioner has

an in-person visit with the beneficiary to assess adherence to the CGM regimen and diabetes treatment plan.

Commercial plans also generally provide coverage for CGM but requirements are plan-specific. Of note, many commercial insurers are waiving requirements for in-person visits due to the COVID-19 pandemic.<sup>14</sup> Some Medicaid plans also limit CGM coverage to certain patients, such as patients with T1D, or to pediatric patients only.<sup>15</sup> There are many states in which Medicaid recipients with diabetes do not have any form of CGM coverage. Sometimes Medicaid plans require

**Table 2. CPT Codes for CGM**

CPT Code	Services	Who Can Perform Services
95249	<b>Personal use CGM start-up/training</b> Ambulatory CGM >72 hours; equipment provided, sensor placement, hookup, calibration, patient training, and printout of recording	RN/LPN, PharmD/RPh, RD, CDE, MA, physician, NP, PA: billed by the supervising physician, APP, or hospital outpatient department
95250	<b>Professional use CGM start-up/training</b> Ambulatory CGM >72 hours; HCP office provided equipment, sensor placement, hook-up, patient training, removal of sensor, and printout of recording	RN/LPN, PharmD/RPh, RD, CDE, MA, physician, NP, PA: billed by the supervising physician, APP, or hospital outpatient department
95251	<b>Personal and professional CGM interpretation</b> Ambulatory CGM >72 hours; analysis, interpretation and report	Physician, NP, PA: Pharmacists can do this in many states with a collaborative practice agreement

APP = advance practice practitioner; CDE = certified diabetes educator; CGM = continuous glucose monitoring; CPT = Current Procedural Terminology; HCP = health care provider; LPN = licensed practice nurse; NP = nurse practitioner; MA = medical assistant; PA = physician assistant; PharmD = doctor of pharmacy; RD = registered dietician; RN = registered nurse; RPh = registered pharmacist.

Source: Reference 16.

either documented hypoglycemia unawareness or evidence of multiple severe low blood glucose readings (<50 mg/dL) to gain coverage. Many Medicaid programs require patients to maintain a 30-day log showing a minimum of four fingersticks per day before approving CGM coverage.<sup>15</sup> The value that millions of Medicaid

recipients could gain from improved access to CGM is enormous.

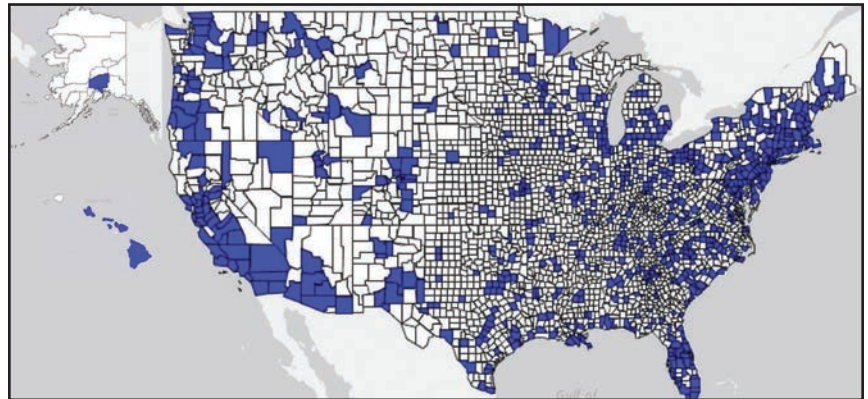
Current Procedural Terminology (CPT) codes exist for training patients to use CGM (Table 2).<sup>16</sup> As shown in the table, pharmacists are able to perform these services in some situations, but the service

must be billed through a supervising physician, advanced practice provider, or hospital outpatient department. Additional CPT codes are available for remote physiologic monitoring using CGM equipment; however, pharmacists also must bill these services incident to a billing provider, such as a physician.

## Insights on CGM in Community Pharmacy

Simply wearing a CGM device does not automatically translate into improved diabetes control if patients are unsure of their treatment goals and how to respond when their glucose levels are out of range. Patients are better able to respond to data from CGM when they have received education regarding their glucose targets and the actions that are appropriate to take when they are out of range. To help ensure that patients have the information they need to respond to CGM data, ADA Standards of Medical Care in Diabetes state that, “when prescribing CGM devices, robust diabetes education, training, and support are required for optimal CGM device implementation and ongoing use.”<sup>17</sup> Thus, it is necessary that a health care provider is able to dedicate time to working with patients who use CGM initially and on an ongoing basis. A lack of available health care providers who offer CGM services offers another opportunity for community pharmacists to support more widespread uptake of CGM. CGM is often managed by endocrinologists rather than primary care providers, whose practices must address a wide range of patient needs.<sup>17</sup> The

**Figure 3. U.S. Counties With at Least One Pediatric or Adult Endocrinologist or Diabetologist**



Source: Reference 17. Reprinted with permission.

endocrinologist workforce is small and there are many patients who lack an endocrinologist in the region where they live. The distribution of endocrinologists in the United States is shown in Figure 3. Only about one-quarter of all counties (24.7%) have an endocrinologist, and not all of these endocrinologists practice in the area of diabetes, leaving critical gaps in access for patients. The lack of patient access to providers who can support CGM creates an opportunity for community pharmacists, who are the most accessible health care providers. The accessibility of community pharmacists is particularly timely given that

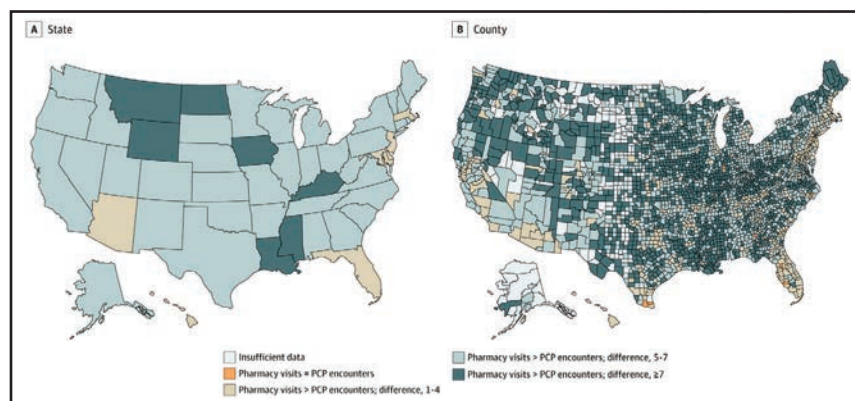
***Community pharmacists are the most accessible health care providers, creating an opportunity to increase patient access to providers who can support CGM.***

available data indicate the COVID-19 pandemic has resulted in greater barriers to patient consultations with diabetes providers.<sup>18</sup> Community pharmacists are well-positioned to address gaps in care providers for patients who could benefit from

CGM, including those with T1D and T2D. CGM devices are increasingly becoming available through the pharmacy benefit, allowing patients to fill their prescriptions at community pharmacies.<sup>15</sup> This dynamic places patients in the proximity of pharmacists at a time when patient education regarding CGM use would be appropriate. Furthermore, patients visit community pharmacies much more frequently than they visit primary care providers (Figure 4), making community pharmacies a logical location for the provision of ongoing monitoring and education services.<sup>19</sup> Data show that pharmacists help improve outcomes when they are involved in CGM services.<sup>20,21</sup>

A study that compared pharmacist-driven implementation of professional CGM to physician-driven implementation found that pharmacist-driven implementation is associated with greater reductions in A1C and more clinical interventions than physician-driven implementation. In this study, pharmacists worked under a collaborative practice agreement and could manage diabetes, including medication changes.<sup>20</sup> In another study, “clinical pharmacy specialist” services for patients with type 2 diabetes who provided professional CGM resulted in statistically significant reductions in A1C.<sup>21</sup> The authors noted that CGM

**Figure 4. Patients Visit Community Pharmacies More Frequently Than They Visit Primary Care Providers**



PCP = primary care provider.

*This cross-sectional study analyzed a 5% random sample of 2016 Medicare beneficiaries from January 1, 2016, to December 31, 2016 (N = 2,794,078). Medicare Part D beneficiaries who were continuously enrolled and had at least 1 pharmacy claim and 1 encounter with a primary care physician were included in the final analysis (n = 681,456). Beneficiaries with Medicare Part B skilled nursing claims or at least 1 Part D prescription drug claim from a mail-order pharmacy were excluded, because these patients have markedly fewer opportunities to visit a community pharmacy.*

Source: Reference 19.

detected nearly half of patients were experiencing nocturnal hypoglycemia, yet many of the patients were not complaining of symptoms and had not previously detected these low glucose levels by BGM. The authors conclude that widespread use of professional CGM in pharmacist-managed diabetes may provide valuable care and improve outcomes more broadly.<sup>21</sup> CGM services that could be provided in community pharmacies span several levels, including simply dispensing CGM devices to providing ongoing education and diabetes management services and prescribing CGM. However, being

able to bill for all of these services is a challenge. Solutions that address this challenge would represent a critical opportunity to facilitate widespread implementation in community pharmacies. Expanded access to CGM in community pharmacies may require adjustments to workflows and staffing allocations to ensure that pharmacists are available to deliver patient services when needed. For pharmacists and pharmacies to make the adjustments necessary to integrate these services, a business model that adequately compensates pharmacists for their time is needed.

## Insights on Scope of Practice

Ideally, pharmacists with the requisite training would be able to identify and have the authority to prescribe CGM for appropriate patients and adjust patients' medications as needed in response to CGM data. This streamlined practice model would improve

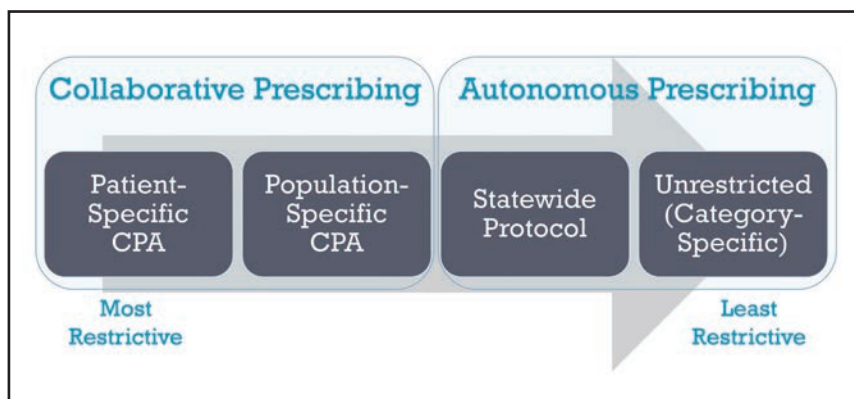
efficiency and access to services for patients. However, pharmacists' authority related to diabetes services varies significantly across states based on state practice acts.

In general, scope of practice for pharmacists has expanded over the

past few decades to allow for an increase in collaborative practice and autonomous prescribing. Current policies range widely regarding how restrictive they are (Figure 5).<sup>22,23</sup> In some states, pharmacists can prescribe and dispense diabetes equipment and devices. Additionally,



**Figure 5. Current Prescribing Policies Vary Widely In How Restrictive They Are**



CPA = collaborative practice agreement.

Source: References 22 and 23.

some states allow pharmacists to initiate, modify, and discontinue diabetes medications based on CGM data. However, many states limit pharmacists' ability to perform these functions. In states where pharmacists may be able to perform these functions, they often must have a collaborative practice agreement

in place. These agreements establish a formal relationship between a provider (usually a physician) and a pharmacist to delegate patient care functions to the pharmacist. Collaborative practice agreements can be patient-specific, population-specific, or implemented as a statewide protocol that applies to



## Insights on Steps for Expanding Access

Implementing widespread access to CGM in community pharmacy could revolutionize the care of patients with diabetes. Roundtable participants discussed several challenges that must be addressed to advance CGM in community pharmacies. They focused

their discussion of strategies on addressing billing and compensation options for CGM, expanding scope of practice to facilitate CGM services in community pharmacies, and ensuring that community pharmacists have the education and training needed to

optimize the delivery of care based on CGMs.

### Billing and Compensation Models

The lack of ability for pharmacists to independently bill for educating

all pharmacists and patients within the state. To minimize logistical barriers, collaborative practice agreements should be written as broadly as possible with regard to both who is covered by the agreement and which functions are authorized. The National Alliance of State Pharmacy Associations provides compiled information to

### Example From the Field

Oregon provides pharmacists with broad category-based prescriptive authority. The Oregon Board of Pharmacy statute ORS 689.645 states: "The board shall establish by rule a formulary of drugs and devices, as recommended by the committee, that a pharmacist may prescribe and dispense to a patient pursuant to a diagnosis by a health care practitioner who has prescriptive authority..."<sup>24</sup> Types of medications that pharmacists typically have authority to prescribe on a state level include hormonal contraception and tobacco cessation products.

guide state legislators and regulators for the development of collaborative practice agreements and statewide protocols. These resources are available at <https://naspa.us/resource/cpa-report/> and <https://naspa.us/resource/pharmacist-statewide-protocols-key-elements-legislative-regulatory-authority>, respectively.

**Table 3. Action Steps for Addressing Billing and Compensation for Pharmacists**

<ol style="list-style-type: none"> <li>1. Address the current payment situation so that pharmacists earn compensation using the same billing mechanisms that other competent educated providers use, regardless of practice setting.             <ol style="list-style-type: none"> <li>a. Advocate at a federal level for revisions to billing codes and pathways to have pharmacists listed as eligible providers in Medicare.</li> <li>b. At state and commercial payer levels, advocate for pathways that provide payment to pharmacists for clinical services.                 <ol style="list-style-type: none"> <li>i. For example: implement a general supervision requirement, pass federal legislation defining pharmacists as providers under Medicare Part B, revise Current Procedural Terminology codes.</li> </ol> </li> <li>c. Address infrastructure to facilitate billing and reimbursement for patient education services.</li> </ol> </li> </ol>
<ol style="list-style-type: none"> <li>2. Determine other stakeholders that benefit from advancing pharmacists' services and form partnerships to advocate collaboratively (e.g., patients, trusted providers operating as an effective team, primary care providers, American Medical Association, American Academy of Family Physicians, American Academy of Pediatrics, Centers for Medicare and Medicaid Services, payers, manufacturers).</li> </ol>

strongly that community pharmacists be paid the same way any other competent provider would be paid for providing patient education and support for CGM. They indicated other changes that will need to happen to support CGM services, such as workflow modifications and resources dedicated to pharmacist training, will be dependent upon the creation of a sustainable business model to support CGM services. Participants also noted that an important challenge is that community pharmacies, by and large, are not set up for billing using medical codes and there will need to be modifications to the infrastructure and logistics to facilitate billing and reimbursement. Participants brainstormed strategies for expanding payment opportunities. Table 3 lists strategies that were supported for advancing billing and compensation models for community pharmacists. For example, participants observed that pharmacists have been very successful in expanding immunization access because they are able to bill for both product and an administration fee when administering vaccines and suggested reviewing the reimbursement model for immunization programs delivered through pharmacies.

APhA has spearheaded efforts to address compensation for pharmacists on a national level by advocating for Medicare provider status recognition. APhA has advocated for adding pharmacists to the list of providers whose patient care services, when delivered to patients in medically underserved communities, are covered by Medicare Part B, and has supported legislation such as the Pharmacy and Medically Underserved Areas Enhancement Act of 2021 (HR 2759/S 1362). If approved, this legislation would allow pharmacists

***Enabling pharmacists to independently bill for educating patients about CGM is a significant opportunity to expand CGM services in community pharmacies.***

patients about CGM is a significant barrier to expanded CGM services in community pharmacies. Currently, the only mechanism for pharmacists' patient care services to be financially covered in the Medicare program is for physicians and other qualified practitioners to bill for them and for oversight to be in place. Many private insurers and Medicaid programs align their benefits with Medicare and have similar restrictions on billing and compensation options

for pharmacists. Experts anticipate that expansion of compensation opportunities within Medicare will spur the creation of similar opportunities with private insurers and Medicaid programs. Without being able to bill a fee for professional services, compensation for dispensing the CGM product is not sufficient to support CGM services provided by pharmacists. Pharmacists in some ambulatory practices are able to bill and receive payment for the initial education of patients using CGM, interpretation of CGM data, and remote monitoring of CGM to help patients understand their data and adjust therapy accordingly. However, these services must be billed under an advanced practice provider. The relevant CPT codes currently do not include coverage at the community pharmacy level, which impedes implementation on a broad scale.

Roundtable participants advocated

**Table 4. Action Steps for Increasing Patient Access to Care and Medical Devices**

1. Advocate at a state level for changes in pharmacy practice acts that support increased patient access through pharmacist provision of CGM services, to include the following: <ol style="list-style-type: none"> <li>Population-based models for collaborative practice agreements that allow pharmacists to initiate or modify treatment for patients diagnosed with diabetes.</li> <li>Incorporation of “prescribe, dispense, and administer the drug/device(s)” into definition of pharmacy practice statutes.</li> </ol>
2. Highlight outcomes data from states with increased authority around CGM and effects on glycemic outcomes and adherence.
3. Leverage the expansion of telehealth to increase access to pharmacists and pharmacy services.
4. Identify legislators with health care experience who could be potential champions.
5. Highlight increasing provider needs emerging from the COVID-19 pandemic. CGM = continuous glucose monitoring.

to bill for services within their states’ scope of practice.<sup>25</sup>

As an intermediate step in support of advancing CGM services in community pharmacies, roundtable participants indicated that manufacturers of CGM devices could create pilot programs in community pharmacies to compensate community pharmacists as a strategy for advancing implementation. Funding provided through this type of program could be used to support general educational conversations with patients about the benefits of CGM without supporting a specific product. These programs help to identify patients who could benefit from CGM and then connect them with providers to explore treatment options as appropriate. Some participants noted that pilot programs based on this type of model are currently underway, and these types of programs are currently in place to support patient uptake of insulin pumps.

Additionally, if the Centers for Medicare and Medicaid Services (CMS) implemented a general supervision requirement for services delivered by highly trained pharmacists, this action would provide increased flexibility for pharmacists to deliver CGM services, particularly in community pharmacies, and expand beneficiary access to coordinated care.<sup>26</sup> Multiple pharmacy organizations, including APhA, have advocated to CMS to expand payment opportunities.

### Expanding Scope of Practice to Facilitate CGM Services in Community Pharmacies

Pharmacists’ authority to independently provide services related to CGM is limited in many states, which creates logistical barriers to the provision of CGM services in community pharmacies. Expanding pharmacists’ scope of practice to include the ability to prescribe CGM devices and adjust patient medications in response to CGM data will help increase

patient access to CGM, especially in medically underserved areas where endocrinologists and primary care providers are limited. Roundtable participants brainstormed strategies for advocating to expand authority (Table 4).

Increasing knowledge about the value of pharmacists among state legislators and regulators will be critical for garnering support for expanding scope of practice. Participants observed that there already exists a robust body of evidence demonstrating that pharmacists’ clinical services improve patient outcomes while reducing costs and recommended seeking out individual champions in state legislatures who understand the value that pharmacists provide.<sup>27-29</sup> They suggested identifying legislators who have experience working in the health care field as potential champions who might be most amenable to conversations about improving health care access. Participants also observed that the impact of the COVID-19 pandemic on the health care system has resulted in provider burnout and staffing shortages. This situation has reduced resistance to expanding the ability of pharmacists to act as physician extenders.

Roundtable participants noted that the COVID-19 pandemic has placed significant stress on the health care system and there are increasing gaps in access due to staffing shortages and health care provider burnout. They indicated that primary care providers are stretched thin now more than ever and this situation is increasing the need for pharmacists to take on additional roles in chronic disease management. Participants anticipated that primary care providers would welcome the help that pharmacists could provide in improving the management of

**Table 5. Action Steps for Education and Resources for Pharmacists**

<p>1. Provide educational resources about CGM for community pharmacists and student pharmacists that include, but are not limited to:</p> <ul style="list-style-type: none"> <li>a. Payment pathway options for both devices and patient services.</li> <li>b. Creating sustainable business models for CGM.</li> </ul>
<p>2. Use of success stories and the creation of CGM champions within the community pharmacy.</p>
<p>3. Create modules that can be incorporated into curricula in schools and colleges of pharmacy.</p>
<p>4. Educational programming should be provided with “bite-sized” tools and resources (microlearning) that are sequential.</p> <p>CGM = continuous glucose monitoring.</p>

patients with diabetes. The increased emphasis on at-risk contracting and value-based purchasing also increases the likelihood that primary care providers will support expanded services by pharmacists. They recommended partnering with physician organizations including the American Academy of Family Physicians, American Academy of Pediatrics, and American Medical Association to bolster advocacy efforts. These types of efforts may help to address the need to add pharmacists under the definition of a provider in federal legislation. Participants suggested looking to data from other countries, such as Canada, that have had success in allowing pharmacists to provide expanded services for chronic disease management as a source of evidence of benefit from pharmacists’ services.

**Professional Education and Resources**

Many currently practicing pharmacists will benefit from education and training regarding the use of CGM and how to use

data from these devices to optimize patient care. A “Personal CGM Implementation Playbook” for integrating CGM technology in clinical practice has been published, but requires support for wider dissemination and implementation.<sup>30</sup> Expanding educational offerings based on these recommendations will help to prepare pharmacists to deliver services in community pharmacy settings.

Roundtable participants provided recommendations regarding the development of educational offerings (Table 5). In particular, they noted that time constraints are a key issue in community pharmacy settings and recommended the creation of “bite-sized” educational offerings that are up to 15 minutes in length. They also observed that chain community pharmacies often use education and training created by trusted partners or create their own educational programming for their pharmacists—noting that these entities will need to balance CGM-related educational offerings with many other educational priorities.

Furthermore, roundtable participants observed that a robust business model to support CGM services is needed to increase the priority for CGM trainings, and educational material and training should focus on business models—and not just clinical content—to increase widespread adoption of CGM services. They also suggested implementation of pilot programs in select pharmacies as a first step before chain-wide trainings.

Strategies for incorporating CGM education into the curricula for schools and colleges of pharmacy were also discussed so that new graduates enter pharmacy practice prepared to offer CGM services. Participants noted that CGM and digital health are not currently included in the Accreditation Council for Pharmacy Education accreditation standards, but these standards are currently under review and will be finalized in 2024. Participants predicted that digital health will likely be incorporated in the standards revision, and then it will be up to schools and colleges to determine how to update their curricula to adapt to the revisions. They also observed that faculty at schools and colleges of pharmacy often incorporate training modules from national organizations, such as APhA, and the availability of CGM-related materials could facilitate implementation in curricula.

# Conclusion

There is a substantial body of evidence demonstrating that CGM is associated with improved glycemic control for patients with both T1D and T2D. However, CGM remains underutilized, and disparities in care are evident. One barrier to expanded utilization of CGM is the lack of an adequate number of providers who offer the service. Developing community pharmacy-based CGM services has been proposed as a logical solution for expanding patient access. However, community pharmacists currently are unable to bill for the delivery of patient education and counseling services required to optimize patients' ability to benefit from CGM use. Abundant data are available showing that involving pharmacists in the care of patients with diabetes improves patient outcomes and reduces overall costs of care.<sup>27-29</sup> Data that are specific to CGM services provided by pharmacists reveal that these services increase the percentage of patients who achieve treatment targets and are associated with improved A1C values.<sup>20,21</sup>



Creation of sustainable business models for community pharmacy-based CGM will require expansion of current payment pathways. Additionally, expanding pharmacists' scope of practice to allow them to dispense CGM and adjust medications in response to data under protocols or collaborative practice agreements will allow services to be delivered more efficiently and effectively. The

pharmacy profession should collaborate with other stakeholders who will benefit from improved patient care to advocate for these changes. As practice models evolve, education and training for pharmacists and student pharmacists will be needed to support large-scale implementation of CGM services in community pharmacies.

# References

1. U.S. Department of Health and Human Services. *National Diabetes Statistics Report 2020: Estimates of Diabetes and Its Burden in the United States*. February 2020. Accessed November 22, 2021. <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>
2. Khunti K, Ceriello A, Cos X, De Block C. Achievement of guideline targets for blood pressure, lipid, and glycaemic control in type 2 diabetes: a meta-analysis. *Diabetes Res Clin Pract*. 2018;137:137-148. doi: 10.1016/j.diabres.2017.12.004
3. Beck RW, Bergenstal RM, Riddlesworth TD, et al. Validation of time in range as an outcome measure for diabetes clinical trials. *Diabetes Care*. 2019;42(3):400-405. doi: 10.2337/dc18-1444
4. Aleppo G. Clinical application of time in range and other metrics. *Diabetes Spectr*. 2021;34(2):109-118. doi: 10.2337/ds20-0093
5. Diatribe. Time in range. Updated August 7, 2019. Accessed January 25, 2022. <https://diatribe.org/time-range>

6. Wright LA, Hirsch IB. Metrics beyond hemoglobin A1C in diabetes management: time in range, hypoglycemia, and other parameters. *Diabetes Technol Ther.* 2017;19(Suppl 2):S16-S26. doi: 10.1089/dia.2017.0029
7. American Diabetes Association. 7. Diabetes Technology: Standards of Medical Care in Diabetes—2022. *Diabetes Care.* 2022;45(Suppl 1):S97-S112. doi: 10.2337/dc22-S007
8. Foster NC, Beck RW, Miller KM, et al. State of type 1 diabetes management and outcomes from the T1D Exchange in 2016-2018. *Diabetes Technol Ther.* 2019;21(2):66-72. doi: 10.1089/dia.2018.0384
9. Association of Diabetes Care and Education Specialists. The Diabetes Care and Education Specialist's Role in Continuous Glucose Monitoring. ADCES Practice Paper. Updated March 2021. Accessed November 15, 2021. [https://www.diabeteseducator.org/docs/default-source/practice/practice-documents/practice-papers/the-diabetes-educator-role-in-continuous-glucose-monitoring.pdf?sfvrsn=448e8458\\_10](https://www.diabeteseducator.org/docs/default-source/practice/practice-documents/practice-papers/the-diabetes-educator-role-in-continuous-glucose-monitoring.pdf?sfvrsn=448e8458_10)
10. DeSalvo DJ, Noor N, Xie C, et al. Patient demographics and clinical outcomes among type 1 diabetes patients using continuous glucose monitors: data from T1D Exchange real-world observational study. *J Diabetes Sci Technol.* 2021;19322968211049783. Epub ahead of print. doi: 10.1177/19322968211049783
11. Grunberger G, Sherr J, Allende M, et al. American Association of Clinical Endocrinology Clinical Practice Guideline: The Use of Advanced Technology in the Management of Persons With Diabetes Mellitus. *Endocr Pract.* 2021;27(6):505-537. doi: 10.1016/j.eprac.2021.04.008
12. Garber AJ, Handelsman Y, Grunberger G, et al. Consensus Statement by the American Association of Clinical Endocrinologists and American College of Endocrinology on the Comprehensive Type 2 Diabetes Management Algorithm—2020 Executive Summary. *Endocr Pract.* 2020;26(1):107-139. doi: 10.4158/CS-2019-0472
13. Centers for Medicare and Medicaid Services. FUTURE Local Coverage Determination (LCD): Glucose Monitors (L33822). Accessed November 22, 2021. <https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?lcdid=33822&ver=31>
14. America's Health Insurance Plans. Health insurance providers respond to coronavirus (COVID-10). August 27, 2021. Accessed December 13, 2021. <https://www.ahip.org/health-insurance-providers-respond-to-coronavirus-covid-19/>
15. Center for Health Care Strategies. *Expanding Medicaid Access to Continuous Glucose Monitors.* January 2022. Accessed January 24, 2022. [https://www.chcs.org/media/Expanding-Medicaid-Access-to-Continuous-Glucose-Monitors\\_011222.pdf](https://www.chcs.org/media/Expanding-Medicaid-Access-to-Continuous-Glucose-Monitors_011222.pdf)
16. Centers for Medicare and Medicaid Services. Physician Fee Schedule. Updated January 1, 2022. Accessed January 25, 2022. <https://www.cms.gov/apps/physician-fee-schedule/overview.aspx>
17. Oser SM, Oser TK. Diabetes technologies: we are all in this together. *Clin Diabetes.* 2020;38(2):188-189. doi: 10.2337/cd19-0046
18. van der Linden J, Welsh JB, Hirsch IB, et al. Real-time continuous glucose monitoring during the coronavirus disease 2019 pandemic and its impact on time in range. *Diabetes Technol Ther.* 2021;23(S1):S1-S7. doi: 10.1089/dia.2020.0649
19. Berenbrok LA, Gabriel N, Coley KC, et al. Evaluation of frequency of encounters with primary care physicians vs visits to community pharmacies among Medicare beneficiaries. *JAMA Netw Open.* 2020;3(7):e209132. doi: 10.1001/jamanetworkopen.2020.9132
20. Sherrill CH, Houpt CT, Dixon EM, et al. Effect of pharmacist-driven professional continuous glucose monitoring in adults with uncontrolled diabetes. *J Manag Care Spec Pharm.* 2020;26(5):600-609. doi: 10.18553/jmcp.2020.26.5.600
21. Ulrich H, Bowen M. The clinical utility of professional continuous glucose monitoring by pharmacists for patients with type 2 diabetes. *J Am Pharm Assoc.* 2021;61(6):e76-e82. doi: 10.1016/j.japh.2021.05.013
22. National Alliance of State Pharmacy Associations. Pharmacist prescribing: Statewide protocols and more. Accessed February 9, 2022 from <https://naspa.us/resource/swp#unique-identifier-continuum>

23. Adams AJ, Weaver KK. The Continuum of Pharmacist Prescriptive Authority. *Ann Pharmacother*. 2016;50(9):778-84. doi: 10.1177/1060028016653608.
24. Oregon Board of Pharmacy. Laws & Rules: ORS 689.645—Vaccines, patient care services, drugs and devices. As filed through January 15, 2022. Accessed February 9, 2022. [https://www.oregon.gov/pharmacy/Documents/OBOPCurrent\\_Laws\\_Rules.pdf](https://www.oregon.gov/pharmacy/Documents/OBOPCurrent_Laws_Rules.pdf)
25. American Pharmacists Association. Pharmacy's top priority: Medicare provider status recognition. Accessed December 21, 2021. <https://www.pharmacist.com/Advocacy/Issues/Medicare-Provider-Status-Recognition>
26. National Alliance of State Pharmacy Associations. Request for Feedback on Scope of Practice. National and State Associations Submit Joint Comments to CMS on Scope of Practice. January 17, 2020. Accessed November 22, 2021. <https://naspa.us/wp-content/uploads/2020/01/Joint-Pharmacy-Comments-SOP-FINAL.pdf>
27. Bluml BM, Watson LL, Skelton JB, et al. Improving outcomes for diverse populations disproportionately affected by diabetes: final results of Project IMPACT: Diabetes. *J Am Pharm Assoc*. 2014;54(5):477-485. Doi: 10.1331/JAPhA.2014.13240
28. Fera T, Bluml BM, Ellis WM. Diabetes Ten City Challenge: final economic and clinical results. *J Am Pharm Assoc*. 2009;49(3):383-391. Doi: 10.1331/JAPhA.2009.09015
29. Lopez T, Nuffer W. Impact and sustainability of a 10-year community pharmacy disease management service. *Innov Pharm*. 2021;12(1):10.24926/iip.v12i1.3630. doi: 10.24926/iip.v12i1.3630
30. Association of Diabetes Care and Education Specialists; American Pharmacists Association; Apha Foundation. Personal Continuous Glucose Monitoring Implementation Playbook. December 2020. Accessed February 9, 2022. <https://www.diabeteseducator.org/docs/default-source/practice/educator-tools/cgm-playbooks/personal-cgm-playbook.pdf?sfvrsn=2>



[WWW.PHARMACIST.COM](http://WWW.PHARMACIST.COM)

©2022 THE AMERICAN PHARMACISTS ASSOCIATION.  
ALL RIGHTS RESERVED.