



Diabetes QI Clinical Toolkit

AHEAD INITIATIVE



CASE WESTERN RESERVE
UNIVERSITY
School of Medicine



NORTHEAST OHIO QUALITY IMPROVEMENT HUB



Northeast Ohio
MEDICAL UNIVERSITY

Contributors to the Development of this Toolkit

This toolkit was modified and updated in August 2023 from a previous **diabetes toolkit** which was developed in 2022 as part of a Medicaid-funded statewide diabetes quality improvement project in high volume Medicaid practices. This toolkit was modified by Case Western Reserve University School of Medicine and Northeast Ohio Medical University faculty and experts in primary care and endocrinology from affiliated health system partners and regional Federally Qualified Health Centers (FQHCs).

Acknowledgments

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In partnership with



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Background



The Burden of Diabetes. Approximately 37 million Americans have diabetes and an additional 96 million have prediabetes.¹ Rates of those diagnosed have doubled in the past 20 years¹ and this trend shows no signs of slowing; models suggest 1 out of 3 people will develop diabetes in their lifetime.² In the United States, diabetes is the primary cause of blindness, limb amputation, and kidney failure³ and currently the 8th leading cause of death.¹

Northeast Ohio Diabetes Disparities. In the Northeast Ohio region, diabetes is a common problem with prevalence rates ranging from 9%-12% of the population. Using data from partner clinics participating in the Northeast Ohio Quality Improvement Hub (NEO QI Hub), hemoglobin A1c (A1c) levels >9% were estimated in the 20-30% range demonstrating opportunity for improvement. In Northeast Ohio, there are notable disparities across populations. Between 2018 and 2022, the non-Hispanic Black population had the highest age-adjusted diabetes mortality rate of 39.4 per 100,000 population compared to 24.5 for Hispanic, 19.9 for white, and 13.5 among the Asian/Pacific Islanders.⁴

Rural Northeast Ohioans face unique barriers to diabetes care. Nine of the 15 Northeast Ohio counties can be classified as partially rural, rural, or Appalachian.⁵ Six of these counties (Lorain, Stark, Mahoning, Carroll, Columbiana, Ashtabula) rank in the bottom 3rd and 4th quartiles among all 88 Ohio counties when it comes to health according to the Robert Wood Johnson Foundation county health rankings.⁶ Notably, demographic and health factors tend to be worse as rurality increases, with rural and Appalachian Ohio counties faring among the poorest. For example, poverty rates, lack of insurance, and education levels are the poorest in rural and Appalachian Ohio counties; and rates of death due to leading causes of mortality in Ohio also increase with rurality.⁵ In 2019, rates of death due to diabetes showed a similar trend with 25 deaths per 100,000 in non-rural

Ohio counties, 27 in partial rural, 33 in rural and 36 in Appalachian counties.⁵ Rural and Appalachian Ohio areas also show shortages in primary care with three Northeast Ohio counties (Ashtabula, Holmes, Carroll) designated as Health Professional Shortage Areas by the Health Resources and Services Administration (HRSA).⁷

The Ohio Department of Medicaid (ODM), in collaboration with academic leaders, healthcare providers, and payers, has established Regional QI Hubs across Ohio to advance population health improvement for Medicaid enrollees. The



Northeast Ohio (NEO) QI Hub is led by Case Western Reserve University (CWRU) School of Medicine in partnership with Northeast Ohio Medical University (NEOMED), regional healthcare systems, and Federally Qualified Health Centers (FQHC). The NEO QI Hub will be recruiting patients and family members enrolled in Medicaid at clinics to ensure patient and consumer voices are integrated into the toolkit allowing adaptation over time based on their input. To align priorities for greater impact, the NEO QI Hub will also engage with community-based organizations, businesses, and Medicaid Managed Care Plan partners.

Achieving HEAlth Equity in Diabetes (AHEAD)

The initial QI project of the NEO QI Hub, AHEAD seeks to improve the health of adults living with diabetes in Northeast Ohio by using quality improvement science to improve glycemic control and eliminate disparities in glycemic control. AHEAD builds upon a prior successful statewide diabetes QI project which improved A1c > 9% from 25% to 20% at high volume Medicaid primary care sites led by Ohio's seven schools of medicine, the Ohio Colleges of Medicine Government Resource Center, and the Ohio Department of Medicaid. To implement evidence-based strategies to equitably improve HbA1c control, participating primary care practices in AHEAD will participate in a kick-off meeting, monthly webinars, and monthly QI coaching.

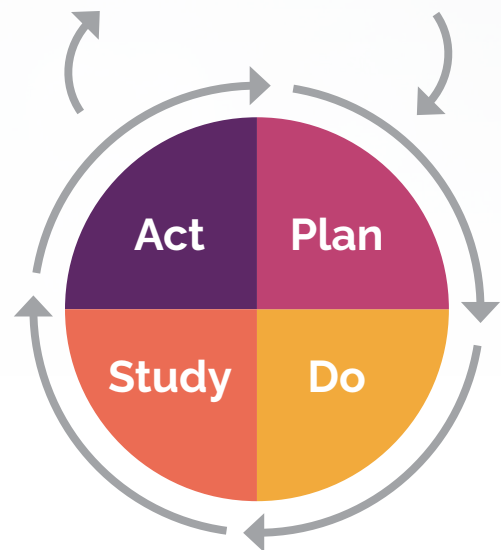
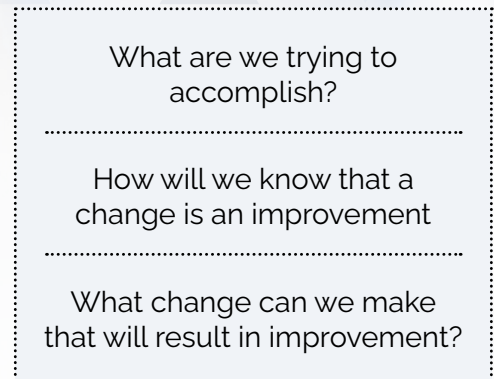
Diabetes Quality Improvement Toolkit



The resources in this toolkit can assist primary care teams in streamlining processes and improving care related to diabetes health, with a primary focus on controlling HbA1C and eliminating disparities in A1c control.

This Primary Care Team Toolkit was adapted from prior successful statewide efforts to improve glycemic control and may be used by participating clinical practice sites to aid in the development of rapid Plan-Do-Study-Act (PDSA) cycles to test interventions designed to impact the key drivers of HbA1c control.

Model for Improvement: Plan-Do-Study-Act (PDSA) Cycles



Adapted from Langley, G.J., Moe, R.D., Nolan, K.M., Nolan, T.W., Norman, C.L., & Provost, L.P. (2009). *The improvement guide* (2nd ed.). Jossey Bass Wiley.

Key Driver Diagram

The diagram below shows the relationships between the project's overall **SMART** Aims (**S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**imely), the primary drivers that contribute directly to achieving the overall SMART Aims, and specific change strategies or interventions to test for each Key Driver.

Global Aim

Reduce complications associated with poorly controlled type 2 diabetes while addressing health equity

SMART Aim

Reduce the percentage of adult patients enrolled in Medicaid with type 2 diabetes whose hemoglobin A1c (HbA1c) was poorly controlled (>9%) by XX% from XX% to XX% by XXX.

Reduce the percentage of poorly controlled A1c (>9%) in the Hispanic and NHB populations by XX% from XX% to XX% by XX.

Population

Adult (18-older) Medicaid patients diagnosed with type 2 diabetes at participating practices

Key Drivers

A Appropriate and Timely Treatment

B Access to High Quality Coordinated Care

C Screened and Well Managed Behavioral Health

D Patient Engagement, Healthy Lifestyle and Self-Efficacy

E Effective Supportive Relationships

F Equitable Environment for Care

Clinical Drivers

Interventions

Optimize medication regimen across conditions
(A, B, E, F)

Consistent Access to Medication/Supplies/ Equipment/Technology
(A, B, D, F)

Diabetes self-management education
(A, B, C, D, E, F)

Coordinated comprehensive individualized medical treatment plan
(B, C, D, E, F)

Standardized office processes for the healthcare delivery system
(B, D, E, F)

Screening and integration of behavioral health services within primary care
(C, E, F)

Screening for social determinants of health and linkage to community resources and or CHWs
(C, E, F)

Chronic Care Model

The Key Driver Diagram and interventions were informed by evidence from referenced studies and are based on a modified version of the expanded Chronic Care Model that has been used successfully to improve patient outcomes for adults with diabetes as well as prevention.⁸ Controlling diabetes effectively requires a focus on multiple layers. For instance, medications must be started and increased appropriately by providers. Patients need to become engaged in improving behaviors such as medication taking, appointment keeping, and healthy lifestyle.⁹⁻¹¹ In addition, payors, communities, and health care systems need to systematically support healthy environments of care, peer and social support, modify policies to improve care, and support disease management between patients and their practice team. There is growing evidence that linkages to community resources for health improvement can improve health outcomes.¹²⁻¹⁴



Initiating QI Program Activities

The activities that take place in the months leading to implementing program activities will prepare QI project teams to begin testing interventions using Plan-Do-Study-Act Cycles (PDSAs), submitting monthly Electronic Health Record (EHR) data extracts, and testing tools and resources. Toolkit Resource 1 provides a detailed view of how to successfully launch a QI project from creating the Aim to developing the team, clarifying the goal, identifying measures, understanding the current process, determining the intervention, and launching Plan-Do-Study-Act (PDSA) cycles. See [Appendix 1 for Toolkit Resource 1: Graphic on Launching an Improvement Project](#).

We recommend the following additional activities to get your practice started:

- **Form a Core Quality Improvement Team.** Prior to starting project activities, gain leadership buy-in! Organizational support is critical to implementing an effective and sustainable quality improvement effort. Teams should be comprised of two practice champions, when possible (a key staff and a key provider champion), key institutional leaders, and supporting interdisciplinary team members such as medical assistants, nurses, pharmacists, or community health workers. Smaller workgroups may be necessary to address specific Key Drivers, if working on more than one Key Driver at a time ([See Key Driver Diagram](#)).
- **Extract Electronic Health Record (EHR) data.** Your practice should establish a method for extracting and viewing EHR data elements in conjunction with the Project Leadership Team. The EHR data will be used to create run and control charts to inform your practice of progress on achieving SMART Aims over time.
 - Data Measures are listed in selected areas of the Key Driver sections where we will have data on our QI dashboard or as examples to share and discuss with your practice teams.
- **Begin to examine how your practice currently assesses and addresses diabetes control overall and for key subgroups.** In particular, begin to examine how your practice ensures patients have A1c tests done and follow-up visits are scheduled monthly until blood sugar is controlled using high level process maps with your assigned QI coaches. Set a disparities focused aim and begin to conduct PDSAs in areas with disparities.
- **Review the treatment algorithm and standardized follow-up visit template** and consider adapting for your practice to begin using as you work on timely follow-up.

How the Toolkit Addresses Disparities

As detailed in the Background section above, there are significant and persistent disparities in diabetes care and outcomes in African American (AA)/Black and Hispanic populations compared to white. There are also geographic disparities in diabetes control, especially between rural and urban populations and in those with greater and lower socioeconomic status. Clinics participating in the NEO QI Hub will serve a large proportion of Medicaid patients and focus on eliminating disparities within their clinics. We will first assess baseline key health disparities within and across participating practices using EHR data. This baseline landscape of health disparities within the NEO QI Hub will guide the development of appropriate **S**pecific, **M**easurable, **A**chievable, **R**ealistic, and **T**ime-framed (**SMART**) Aims focused on eliminating these disparities.

This toolkit has the following evidence-based resources and strategies to support the development of programs and interventions to eliminate disparities in diabetes health outcomes:

Key Drivers	Evidence-Based Resources and Strategies
A	<p>Treatment algorithms prioritizing medications which can improve diabetes morbidity and mortality</p> <p>Continuous glucose monitoring and remote home blood sugar monitoring to overcome access to care and data to facilitate appropriate treatment and follow up</p>
A, B, C, D, F	<p>Standardized protocols to reduce implicit bias</p> <p>Consistently identifying and addressing medication and visit adherence (e.g., 90-day prescriptions, multiple follow-up modalities such as staff-led visits, Community Health Worker, and telehealth)</p>
B	<p>Outreach to patients using tailored approaches and team-based care, focused on those with care gaps</p>
B, F	<p>Leveraging telehealth to address transportation barriers/access</p>
E	<p>Communication skill-building to build trusting relationships between patients and primary care teams, including cultural humility, health literacy, and implicit bias</p>
F	<p>Health equity frameworks that center equity measurement and activities</p> <p>Identifying and addressing Social Drivers of Health (SDoH), anti-racism, and inclusion</p>

Key Driver A: Appropriate and Timely Treatment



In this section, we provide resources related to blood sugar monitoring which is critical to determining the appropriate follow-up schedule and treatment. In addition, we provide key resources on effective medication treatment and medication adherence which are critical to improving A1c control. Additional strategies and resources which promote appropriate and timely treatment will be addressed in future key driver sections due to overlap in strategies which address multiple key drivers.

KEY DRIVER A1:

Blood Sugar Monitoring

Dashboard Data Measure: A1c testing done in the last 12 months or 6 months if A1c > 9.

Blood sugar testing is critical for assisting providers in monitoring responses to treatment and making treatment decisions with patients. It also assists patients with understanding the influence of lifestyle and medications on their sugars. We promote use of A1c testing every 3 months for patients with A1c above goal, and A1c testing every 6 months for patients who are at their A1c goal as per the American Diabetes Association (ADA) guidelines.¹⁵

While A1c testing is useful, we promote use of more frequent blood sugar monitoring paired with at least monthly follow-up of these readings with a clinical care team member for further medication and lifestyle optimization to more rapidly improve A1c levels. This recommendation is based on data showing that patients with more frequent follow-up have greater improvements in A1c,¹⁶⁻¹⁸ including in the prior Medicaid-funded statewide Diabetes Quality Improvement Project. Below, we describe self-monitored blood glucose options for patients.

Self-Monitoring of Blood Glucose. While self-monitoring of blood glucose (SMBG) in type 2 diabetes on oral diabetes medications alone has not been proven to be beneficial for all people with type 2 diabetes, a comprehensive approach that utilizes periodic structured SMBG with decision support has been shown to improve A1c levels in people who are not at target.¹⁹ Consider patient-owned, real-time continuous glucose monitors (RT-CGM) or flash glucose monitors (FGM) if the patient requires multiple injections of insulin per day, has hypoglycemia, or is above their A1c goal. RT-CGM and FGM can be considered for other patients if cost and insurance coverage are not a barrier. A RT-CGM automatically monitors your blood glucose levels continuously throughout the day without needing to do anything and sends results to a smartphone every few minutes, whereas a FGM only checks glucose levels when you scan the device. The FGM can provide blood sugar data over the last 8 hours each time they are scanned. When prescribing SMBG, RT-CGM, or FGM, ensure that patients receive ongoing instruction and regular evaluation of technique, results, and their ability to use data to adjust behaviors and glucose lowering therapies.

Recently expanded Medicare coverage of RT-CGMs and FGMs to include people with type 2 diabetes who are taking any type of insulin as well as members who are not on insulin but have a history of hypoglycemia. Medicare typically requires a prior authorization and that the order be placed as a Durable Medical Equipment (DME) supply, although it may vary depending on the plan. For Medicaid enrollees with a history of significant or recurring hypoglycemia, no prior authorization is needed to order CGM through the pharmacy. Other insurers eligibility can be searched online [here](#).

Medicaid patients are eligible for FGM or RT-CGM, if they have one of the following diagnoses:

1. Type 1 diabetes
2. Type 2 diabetes and require insulin dose adjustment within the last 12 months or have significant inability to adequately monitor blood glucose via fingerstick, or not require prandial insulin with A1c >7%

Key Driver A1: List of Resources

Resource #	Descriptions & Links
A1.1	<p>Table of Indications, Frequency, and Method of Glucose Monitoring</p> <p><i>See page 15.</i></p>
A1.2	<p>Structured Self-monitoring Blood Glucose Tool</p> <p><i>Tool for patients to record their blood sugars which was used 3 days each month in a successful structured self-monitoring study. See Appendix 2.</i></p>
A1.3	<p>American Association of Diabetes Educators Self-Monitoring Using Meters in Type 2</p> <p><i>Additional SMBG tools which can be used with patients.</i></p>
A1.4	<p>The American Diabetes Association DiabetesPro</p> <p><i>Search the ADA Education Library's free registered user content for worksheets including: All About Blood Glucose, Blood Glucose Log, Tracking Blood Glucose, Checking Blood Glucose, and Low Blood Glucose.</i></p>
A1.5	<p>Optimizing the Telehealth Diabetes Visit: Glucose Monitoring Visit</p> <p><i>This Cardi-OH document is helpful to inform or monitor treatment adjustments and lifestyle choices, during illness, and monitoring hypoglycemia.</i></p>
A1.6	<p>Remote Monitoring for Diabetes: Embracing Technology to Improve Patient Care</p> <p><i>The Cardi-OH Webinar discusses how primary care teams can implement SMBG, FGM, and RT-CGM with patients.</i></p>
A1.7	<p>Find and Compare CGMs</p> <p><i>Real-time and Flash glucose monitors.</i></p>
A1.8	<p>American Association of Clinical Endocrinology Slides on Interpreting CGM</p> <p><i>Describes how to interpret CGM.</i></p>
A1.9	<p>Interpretation of Continuous Glucose Monitoring in Primary Care: A Case-Based Approach</p> <p><i>Cardi-OH Webinar slides review basic elements of an ambulatory glucose profile and identify common patterns. Troubleshooting scenarios are explored in a series of cases.</i></p>
A1.10	<p>ADCES Diabetes Coding Table of CGM Education and Interpretation</p> <p><i>Lists billing codes to maximize return on investment in diabetes care and education that can be used for CGM education and interpretation.</i></p>

Resource A1.1. Table of Indications, Frequency and Method of Glucose Monitoring

Diabetes Medication Modality	Self-Monitored Blood Glucose	Real-Time Continuous Glucose Monitoring (RT-CGM)	Intermittently Scanned, Flash Glucose Monitoring (FGM)
Oral Agents, Non-insulin Injectables	<p>As needed to:</p> <ul style="list-style-type: none"> ▪ Inform or monitor treatment adjustments ▪ Inform lifestyle choices during illness ▪ Monitoring hypoglycemia (sulfonylurea or glinide use) 	If person not meeting A1c target and/or hypoglycemia	If person not meeting A1c target and/or hypoglycemia
Basal Insulin Injectable	<p>1-3+ times per day, before: (especially fasting glucose to aid in dose titration)</p>	Consider if cost is not a barrier	Consider if cost is not a barrier
Multiple Injections of Insulin	<p>3+ times per day, before:</p> <ul style="list-style-type: none"> ▪ Meals/bedtime ▪ Exercise ▪ Driving ▪ Suspected hypoglycemia ▪ Occasionally postprandial (prandial dose titration) 	If person not meeting A1c target RT-CGM preferred for people with frequent hypoglycemia or hypoglycemia unawareness.	If person not meeting A1c target

KEY DRIVER A2:

Medication Management and Adherence

Dashboard Data Measures: % of adults with diabetes and A1c > 9 on insulin; % of adults with diabetes and A1c > 9 on newer medications; % of adults with diabetes and A1c > 9 on a specific number of medications; and, for medication adherence, the mean medication possession ratio for patients with diabetes.

Medication intensification (starting or increasing a diabetes medication), medication adherence (or medication taking), and lifestyle change are Key Drivers of improved A1c control.²⁰ Lifestyle programs such as diabetes self-management education, medical nutrition therapy, and weight management programs are important evidence-based referrals for patients with diabetes as part of an approach to improve their blood sugar control. In addition, bariatric surgery should be considered for appropriate individuals as part of a treatment plan according to the American Diabetes Association 2023 Standards of Care (i.e., adults with BMI ≥ 40 kg/m² (BMI ≥ 37.5 kg/m² in Asian American individuals) and in adults with BMI 35.0–39.9 kg/m² (32.5–37.4 kg/m² in Asian American individuals) who do not achieve durable weight loss and improvement in comorbidities). Bariatric surgery may also be considered as a treatment option for those patients with diabetes BMI 30.0–34.9 kg/m² (27.5–32.4 kg/m² in Asian American individuals) who do not achieve durable weight loss and improvement in comorbidities.²⁰ We discuss lifestyle approaches further under **Key Driver D**.

On the following page, we provide selected medication management resources related to medication intensification, medication taking or adherence, starting people on insulin, and hypoglycemia and deintensification to ensure attention to safety concerns. The treatment algorithms demonstrate the importance of using newer medications which have been shown to improve cardiovascular and kidney outcomes.

Key Driver A2: List of Resources

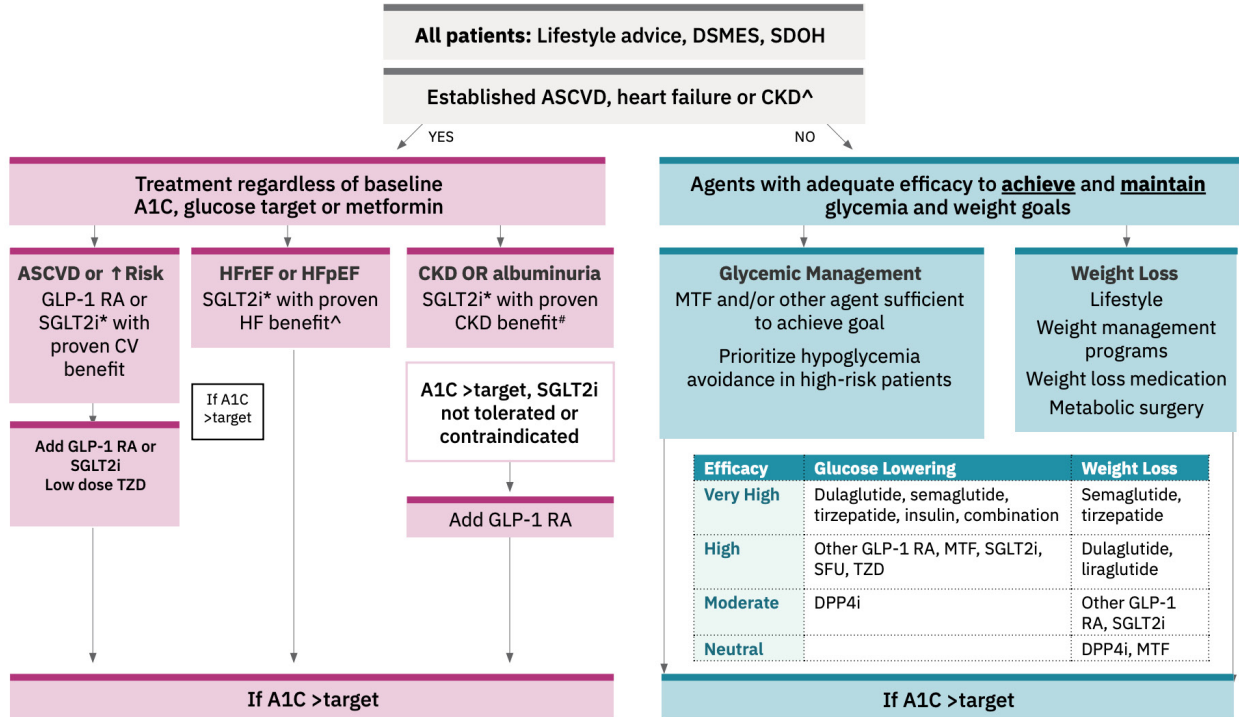
Resource #	Descriptions & Links
A2.1	<p>Adapted ADA Treatment Algorithm</p> <p><i>See page 18.</i></p>
A2.2	<p>Simplified Prescription of Diabetes Technology and Medications</p> <p><i>Cardi-OH Capsule highlighting treatment options on the Medicaid formulary.</i></p>
A2.3	<p>Outpatient Diabetes Management for Primary Care Providers: Medications Intensification and Algorithm</p> <p><i>This Cardi-OH document highlights evidence-based strategies for pharmacologic management of type 2 diabetes (T2D) in outpatient settings while focusing on newer therapies and treatment intensification strategies.</i></p>
A2.4	<p>Cardi-OH Radio Podcast 21 - Talking With Your Patients: Insulin Initiation and Administration</p> <p><i>The podcast discusses common barriers to insulin initiation and administration in the primary care office. The interview includes a patient education example and tips for ordering diabetes and insulin supplies.</i></p>
A2.5	<p>Minimizing Hypoglycemia Risk to Improve Cardiovascular Health</p> <p><i>Addressing hypoglycemia and deintensification. Addressing hypoglycemia and deintensification. This Cardi-OH document characterizes the complex relationship between tight glycemic control, severe hypoglycemia, and cardiovascular events. It describes an individualized approach to glycemic control for patients with type 2 diabetes to reduce hypoglycemia risk and maximize cardiovascular health.</i></p>
A2.6	<p>Cardi-OH Radio Podcast 13 - The Lowdown on Low Blood Sugar: Hypoglycemia in the Patient with Diabetes</p> <p><i>Getting people started on insulin - discusses hypoglycemia in the patient with diabetes, how to address the frequency and consequences of this adverse condition, identify key risk factors, and describe practical management strategies for prevention and treatment when it does occur.</i></p>
A2.7	<p>Cardi-OH Radio Podcast 5 - Medication Adherence: a Driver of Patient Outcomes</p> <p><i>The podcast discusses medication adherence in primary care with a special focus on care delivered via telemedicine, identifies strategies to improve medication adherence and discusses the important role of pharmacists in the care of patients with chronic conditions.</i></p>
A2.8	<p>Million Hearts Medication Adherence</p> <p><i>Numerous strategies, including educating patients, simplifying treatment, and coordinating patient care across the health care team, can improve adherence.</i></p>

Resource A2.1. Adapted ADA Treatment Algorithm

UPDATED MAY 2023



2022 Guidelines: Pharmacologic Management Algorithm *As of November 2022*
 American Diabetes Association/European Association for the Study of Diabetes recommendations for the treatment of hyperglycemia in people with diabetes



^{*}If adequate eGFR, [^]Empagliflozin/dapagliflozin have shown benefit in dedicated HF studies. Canagliflozin/ertugliflozin demonstrated reduction in hospitalization for HF in cardiovascular outcomes trials. [#]Dapagliflozin/canagliflozin/empagliflozin demonstrated benefit in dedicated renal studies.

^{*}start if eGFR >20 mL/min/1.73 m², continue until HD or transplant.
 DSMES=diabetes self-management education and support, SDOH=social determinants of health, ASCVD=atherosclerotic cardiovascular disease, HFrEF=heart failure with reduced ejection fraction, HFpEF=heart failure with preserved ejection fraction, CV=cardiovascular, CKD=chronic kidney disease, GLP-1 RA=glucagon-like peptide-1 receptor agonist, SGLT2i=sodium-glucose cotransporter-2 inhibitor, TZD=thiazolidinedione, SFU=sulfonylurea, MTF=metformin.

Reference
 Davies MJ, Aroda VR, Collins BS, et al. Management of hyperglycemia in type 2 diabetes, 2022. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care. 2022;45(11):2753-2786. doi: 10.2337/dci22-0034.

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Key Driver B: Access to High-Quality Coordinated Care



In this section, we focus on standardized office procedures related to timely follow-up, pre-visit planning, and outreach which can strongly enhance high quality coordinated care leading to improved A1c.

KEY DRIVER B1:

Timely Follow-Up

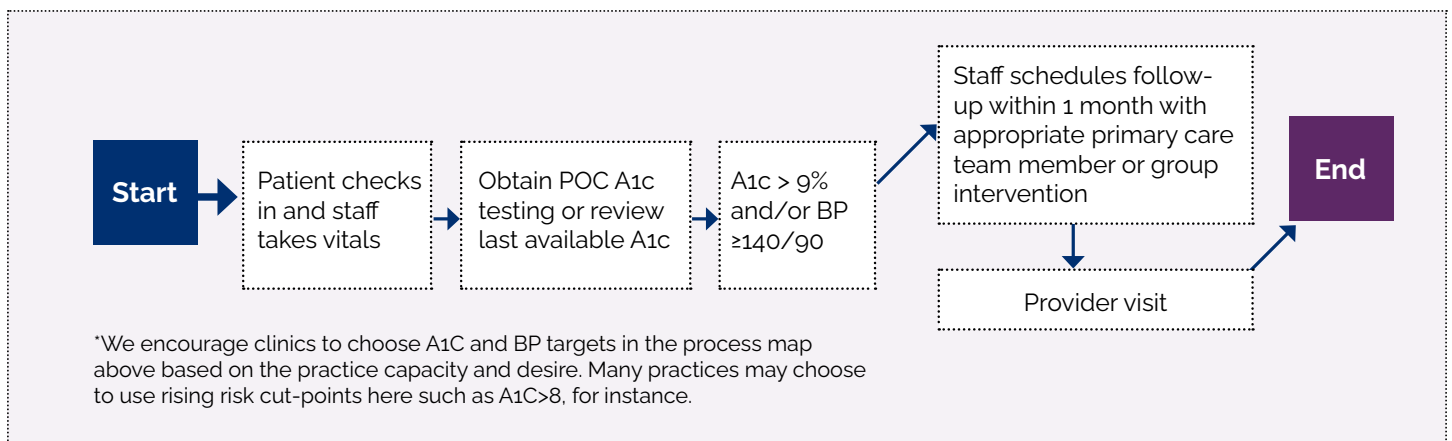
Dashboard Data Measure: % of people with diabetes and A1c >9% with a scheduled follow-up visit either in person or telehealth within 30 days.

Timely follow-up is important for patients with diabetes whose A1c is above goal. We promote at least monthly follow-up visits in any evidence-based approach (e.g., back with provider, clinical pharmacist, diabetes self-management education, nurse-led visits, and dietitians) either in person or using telehealth until the blood sugar is at goal. We base this approach on studies showing benefit in greater A1c improvements when patients have shorter intervals between visits¹⁶⁻¹⁸ as well as our prior statewide efforts that used this as one aspect of a QI project to improve glycemic control. When establishing processes for timely follow-up in team-based care, it is important to pay attention to continuity of care with the key team members (i.e., not having a different clinical pharmacist or nurse or primary care provider at each visit). Continuity of care within teams and providers has been associated with improved patient experience and outcomes.²¹⁻²³ Below are resources to assist primary care teams in implementing a process to ensure every patient receives an opportunity for timely follow-up.

Key Driver B1: List of Resources

Resource #	Descriptions & Links
B1.1	Example Process Map for Timely Follow-Up <i>See below.</i>
B1.2	Prescribing Provider Visit Template <i>See Appendix 3 for examples for individual visits with a prescribing provider.</i>
B1.3	Nurse Visit Template <i>See page 21.</i>
B1.4	AHRQ Strategy 6M: Group Visits <i>A group visit starter kit.</i>
B1.5	VA Shared Medical Appointment Manual <i>A guide and resources for starting and sustaining successful shared medical appointments.</i>

Resource B1.1. Example Process Map for Timely Follow-Up



Resource B1.3: Nurse Visit Template

Nurse Visit Template	
Referring provider/PCP:***	
Last seen by provider/PCP:***	
Pt was referred to DSMES/MNT	Date referred: Attended?: Yes No Date attended:
Goals:	Individual blood glucose goals: <i>(per referring provider, if available)</i> A1C goal: Blood glucose goal: Blood pressure goal:
Took Medications today:	
Any medication changes:	
Patient brought in medications:	
Any medication adherence concerns:	
<i>Ask the patient to describe how they take their diabetes, hypertensive and cholesterol medications, including insulin. Ask if there is a blood sugar number for which the patient does NOT take their insulin</i>	
Please list medications not being taken consistently:	
Any patient concerns about medications:	
Patient brought in blood sugar logs:	Yes No, but is checking blood glucose No, not checking blood glucose. Why?: <i>(If due to not having a glucometer, please pend glucometer and testing supplies for referring provider, or PCP, to sign.)</i>

Blood Sugar Readings							
	FBS	ppBkft	acL	ppL	acD	ppD	HS
Date							

Resource B1.3: Nurse Visit Template — *Continued*

Any Symptoms of Hypoglycemia?			
Shaking	Palpitation	Hunger	Anxious
Diaphoretic	Headaches	Fatigue	Irritable
		Blurred vision	Dizzy
Frequently occurring hypoglycemia (more than 2 symptomatic hypoglycemia episodes per week):		Any Episodes of Severe Hypoglycemia (caused an MVC, Emergency Room visit brought in by EMS, or use of Hospital for titration):	

Any Symptoms of Hyperglycemia?		
Nausea	Blurred vision	Polyphagia
Drowsiness	Dry skin	Polydipsia
		Polyuria

Dietary Changes?	
24 hr Diet Recall:	
Breakfast:	
Snack:	
Lunch:	
Snack:	
Dinner:	
Evening Snack:	
Overnight Snack:	
Beverages:	

Resource B1.3: Nurse Visit Template — *Continued*

Diabetes Assessment & Plan			
What is the patient doing for activity/exercise?			
Does the patient drink beer, wine, or other forms of alcohol?	Yes	No	If yes, how much in the last week?:
Does the patient smoke, or use tobacco products?	Yes	No	If yes, what form, and how much in the last week?:
Patient had questions about:			

Vitals Signs			
Temp:	HR:	BP:	SpO2:
Last 3 Weights:	Wt: BMI: Date:	Wt: BMI: Date:	Wt: BMI: Date:
Last 3 HbA1c:	A1c: Date:	A1c: Date:	A1c: Date:
Last 3 BP Readings:	BP: Date: Home/Clinic:	BP: Date: Home/Clinic:	BP: Date: Home/Clinic:

Diabetes Assessment & Plan	
Has A1C goal been met?	Yes No
Has Blood glucose goal been met?	Yes No
Has the Blood Pressure goal been met?	Yes No
If BP above goal, do they have home BP monitor?	Yes No

If the patient does not have a BP monitor, please send a BP monitor order for provider to sign if covered by insurance or see if patient can buy at pharmacy (arm cuff) and educate on home BP measurement.

Resource B1.3: Nurse Visit Template — *Continued*

Education Tailored to the Patient Risks and Needs *(Choose all that apply)*

Taking Medications	Monitoring	Healthy Coping
Healthy Eating	Problem Solving	DASH Diet
Being Active	Reducing Risk	Other

Patient was Offered Additional Support Follow Up: Referred to *(Choose all that apply)*

DSME	Pharmacy Disease State Management	Dental
Ambulatory Nutrition	Diabetes Group Clinic	DASH Diet
Weight Management	Optometry/Ophthalmology	Behavioral Health
		Social work

Guidance for Follow Up:

- If A1C at goal, follow up with PCP in 6 months.
- If A1C at goal, but blood glucose above goal, follow up with RN in 1 month.
- If blood glucose above goal, after 3 RN visits, then follow up with prescribing provider.
- If A1C above goal, follow up with PCP, PharmD, APP (APRN or PA), or RN in 1 month.
- If 1 severe hypoglycemia episode or 2 symptomatic hypoglycemia episodes, notify provider and follow up with PCP in 2 - 4 wks.
- If unexplained persistent hyperglycemia, Blood Glucose greater than 300 x 2 and/or symptoms (nausea, vomiting, fever, dehydration), notify provider and follow up with PCP.

Follow up with MD/APRN/PA _____ in ___ weeks.
 CC/Routing to *** (Referring provider / PCP)

Patient Agrees with Plan: Yes No

KEY DRIVER B2:

Pre-Visit Planning

Pre-visit planning includes scheduling individuals for follow-up at the end of their current visit, gathering information about the upcoming appointment (including individual concerns), obtaining labs prior to the visit, and spending a few minutes to huddle or hand off people with diabetes. A huddle of the health care team can be used at the start of the day, for instance, to identify individuals' diabetes needs and to assign responsibility for task completion to individual team members. Other methods, besides huddles, such as use of pre-set parameters within the EHR that staff identify at the start of the day can assist with point of care activities to address gaps in care at the visit. Pre-visit planning fosters several activities known to improve A1c levels, including scheduling appointments to enhance timely follow-up for those with elevated blood glucose levels and action based on recent labs such as referral to diabetes self-management education and/or medication adjustments if the blood glucose level is elevated.

Key Driver B2: List of Resources

Resource #	Description & Link
B2.1	Pre-Visit Planning: Save Time, Improve Care, and Strengthen Care Team Satisfaction <i>AMA STEPS Forward module includes 10 steps for implementing pre-visit planning at your clinic. It also includes a calculator to describe the cost and time savings by implementing these steps.</i>

KEY DRIVER B3:

Outreach

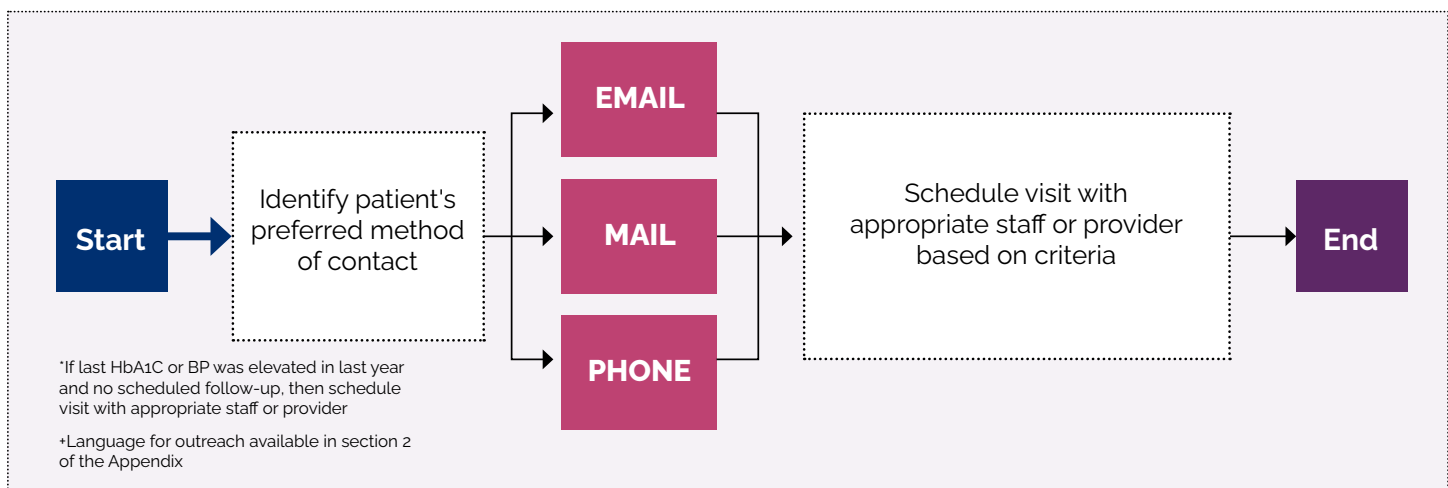
Example Data Measure (Not on Dashboard): % adults with diabetes with A1c > 9% with outreach attempt.

Outreach through text messaging, a patient portal, phone calls, or letters is an effective method for encouraging patients with elevated HbA1C with no follow-up appointment to schedule a follow-up visit. Uptake on outreach varies, but ranges between 10-28% in clinics serving populations with less resources.²⁴⁻²⁶ Often these outreach attempts are done two times a year using an electronic health record-based registry of patients with diabetes and elevated A1c with no scheduled follow-up within one month. However, outreach approaches have also been used in a more ongoing fashion by practices, such as weekly, using lists of patients seen the prior week with elevated A1c and no scheduled follow-up. Some practices have also used tailored outreach to engage specific subgroups to eliminate disparities, such as having a community health worker (CHW) call and engage patients in care. Below, we provide a process map and outreach messaging you might use in your practice.

Key Driver B3: List of Resources

Resource #	Descriptions & Links
B3.1	High Level Process for Outreach Using Multiple Venues <i>See below.</i>
B3.2	Outreach Messaging <i>See page 27.</i>

Resource B3.1. High Level Process for Outreach Using Multiple Venues



Resource B3.2: Outreach Messaging

Evidence shows benefit for up to 3 outreach attempts.

Effective outreach messaging should:

1. Explain why you are reaching out to the individual
2. Explain why addressing the health condition is important
3. Include a call to action

The call to action could be:

See a provider, pharmacist, nurse, dietitian, or other team member within the practice.

Below is an example outreach message for diabetes that could be adapted to your practice:

“ Dear Mr./Ms. [patient last name],

Our records show that your last HbA1C was $\geq 9\%$. As you know, high blood sugar can lead to excessive urination, blurry vision, kidney damage, and/or nerve pain. Please call us at xxx-xxxx to schedule a NURSE diabetes visit in the next 30 days. Let's work together to protect your health.

Sincerely,

[provider name or diabetes clinic team etc.] ”

Key Driver C: Screened and Well-Managed Behavioral Health



Dashboard Data Measure: % of adults with diabetes screened for depression using the PHQ-2 in the last year. You can also use the dashboard to stratify A1c control by anxiety diagnosis.

Depression is a common mental health condition experienced by individuals with type 2 diabetes.²⁷ Depression may be a preexisting condition or may develop after diabetes is diagnosed. Symptoms of depression may contribute to other risk factors for new or poorly controlled diabetes. For example, someone with depression may experience low energy or motivation to engage in healthy behaviors. Similarly, the side effects of some psychotropic medications (e.g., sedation or increased appetite) may also interfere with A1c control. Untreated depression can have a negative influence on diabetes control, for example, reducing the likelihood of checking glucose levels or taking medication.²⁷ Conditions such as depression and anxiety are associated with increased mortality risk among those with Type 2 Diabetes.²⁸ Given the high rates of behavioral health concerns such as depression, anxiety, and diabetes distress as well as the association between greater symptoms and worse diabetes and cardiovascular health outcomes,²⁷⁻²⁸ we recommend primary care teams establish standardized protocols to identify and address these concerns.

KEY DRIVER C1:

Depression Screening and Treatment

We recommend using validated screening tools for depression annually in all patients with diabetes and as needed when a patient may be experiencing depressive symptoms.²⁹ If the 2-item PHQ-2 is "positive", use the 9-item Patient Health Questionnaire (PHQ-9) for a more in-depth screening. Then, supplement the PHQ-2 and PHQ-9 screenings with a full clinical assessment to conclusively diagnose depression. Using electronic health record tools to assist care teams in remembering to screen for depression is critical to improving

screening rates. Depression treatment, including psychotherapy and pharmacotherapy, is recommended for treating major depression.³⁰⁻³³ In addition, Diabetes Self-Management Education and Support (DSMES; **Key Driver D1**) has been shown to reduce depressive symptoms.

Key Driver C1: List of Resources

Resource #	Descriptions & Links
C1.1	<p>Instrument: Patient Health Questionnaire-2 (PHQ-2)</p> <p><i>The PHQ is a self-administered version of the PRIME-MD tool for common mental health disorders administered by health care professionals. The PHQ-2 inquires about the frequency of depressed mood, with a score ranging from 0 to 6. The authors identify a cut-off score of 3 as the optimal cut point for screening purposes and stated that a cut point of 2 would enhance sensitivity.</i></p>
C1.2	<p>Instrument: Patient Health Questionnaire-9 (PHQ-9)</p> <p><i>The Patient Health Questionnaire (PHQ) is a self-administered version of the PRIME-MD tool for common mental health disorders administered by health care professionals. The PHQ-2 inquires about the frequency of depressed mood, with a score ranging from 0 to 6. The authors identify a cut-off score of 3 as the optimal cut point for screening purposes and stated that a cut point of 2 would enhance sensitivity. D1) has been shown to reduce depressive symptoms.</i></p>
C1.3	<p>Pharmacologic Treatment of Depression AAFP</p> <p><i>The prevalence of depression and the use of antidepressant medications have risen steadily in the United States over the past three decades. Antidepressants are the most commonly prescribed medications for U.S. adults 20 to 59 years of age.</i></p>

KEY DRIVER C2:

Anxiety and Diabetes Distress Screening

Given the relationship between A1C in individuals with diabetes and other behavioral health conditions including anxiety and diabetes distress. You may consider adding screening measures such as the Generalized Anxiety Disorder 2-question screener (GAD-2) or Diabetes Distress Screening Scale to screen for anxiety or diabetes distress. Diabetes distress includes feelings of being overwhelmed or stressed by diabetes and related disease management.³⁴⁻³⁶ Resource C2.1 is an American Diabetes Association (ADA) article on diabetes and emotional health. Pages 1-2 discuss a screening tool for anxiety (GAD-2). Resource C2.2 describes screening tools and intervention strategies for diabetes distress in primary care. Resource C2.3 provides an overview on treating anxiety in primary care. In addition, Diabetes Self-Management Education and Support (DSMES; **Key Driver D1**) has been shown to reduce anxiety, diabetes distress and depressive symptoms.

Key Driver C2: List of Resources

Resource #	Descriptions & Links
C2.1	Diabetes and Emotional Health A Practical Guide for Health Professionals Supporting Adults with Type 1 and Type 2 Diabetes <i>ADA article describes screening using the GAD-2, assessing, and addressing anxiety.</i>
C2.2	Development of a Brief Diabetes Distress Screening Instrument <i>Article describing the Diabetes Distress Screening Tool including the questionnaires.</i>
C2.3	Diabetes Distress: Screening Tools and Intervention Strategies <i>The Cardi-OH article helps define diabetes distress and familiarize primary care clinicians with screening tools and evidence-based interventions to help patients with diabetes distress</i>
C2.4	Generalized Anxiety Disorder and Panic Disorder in Adults AAFP <i>Generalized anxiety disorder (GAD) and panic disorder (PD) are common mental health conditions in adults that are often seen in primary care. Although there is insufficient evidence to support universal screening for PD and GAD, evaluation should be considered in patients who express recurrent, pervasive worry or present with somatic symptoms not attributed to underlying medical conditions.</i>

Key Driver D: Engagement, Healthy Lifestyle and Self-Efficacy



Dashboard Data Measure: % adults with diabetes and A1c >9 who were referred to DSMES, MNT, or Lifestyle Program in the last 2 years.

Engaging people with diabetes in care, healthy lifestyle, and improving self-efficacy are important in improving A1c levels. Three critical interventions are known to improve engagement, lifestyle, and self-efficacy: 1) Diabetes Self-Management Education and Support (DSMES), 2) medical nutrition therapy (MNT), and 3) effective communication. Interventions discussed in other sections can also improve self-efficacy and engagement such as outreach, community health worker approaches, and individual and group visits.

KEY DRIVER D1:

Diabetes Self-Management Education and Support (DSMES)

Diabetes is a chronic disease that requires a person with diabetes to make many daily self-management decisions and perform complex care activities. DSMES helps support informed decision-making, self-care behaviors, problem-solving, and active collaboration with the health care team. DSMES has been shown to improve A1c levels by about 0.5% and improve quality of life while reducing hypoglycemia, hospital admissions, depressive symptoms, and health care costs.³⁷⁻³⁸ There are four critical times to consider referral of people with diabetes to self-management including: 1) at diagnosis, 2) annually when reassessing a person's needs, 3) when new complicating factors arise which influence self-care, and 4) when transitions in care occur.

Key Driver D1: List of Resources

Resource #	Descriptions & Links
D1.1	<p>Diabetes Self-Management Education Covered by all Ohio Medicaid & MyCare Ohio Managed Care Plans</p> <p><i>Comparison table of DSMES and MNT.</i></p>
D1.2	<p>Diabetes Self-Management Education and Support: Provider Use and Patient Benefits</p> <p><i>This Cardi-OH document describes why, when, and how physicians can use DSMES to benefit patients with diabetes.</i></p>
D1.3	<p>Ask Your Doctor to Order Diabetes Self-Management Education and Support</p> <p><i>DSMES is a program for people with diabetes to gain the knowledge, skills, and confidence necessary to make behavior changes in order to better control their diabetes.</i></p>
D1.4	<p>Find an Accredited Diabetes Self-Management Education and Support Program in Your Area</p> <p><i>This website allows you to search for an ADCES-accredited DSMES program near you.</i></p>
D1.5	<p>Diabetes Self-Management Education and Support (DSMES) Toolkit</p> <p><i>The CDC provides a DSMES toolkit to help organizations start a program.</i></p>
D1.6	<p>ADCES Practice Resources</p> <p><i>The American Association of Diabetes Educators DEAP program guides interested professionals in how to start an accredited DSMES program.</i></p>
D1.7	<p>Certified Diabetes Care and Education Specialist (CDCES) Designation</p> <p><i>The national certification board for Certified Diabetes Care and Education Specialist (CDCES) credential gives guidance on how to become a certified diabetes educator.</i></p>

KEY DRIVER D2:

Medical Nutrition Therapy (MNT)

MNT is one way to facilitate effective weight management, carbohydrate counting, or meal planning. MNT interventions provided by registered dietitians is effective for improving A1c, with absolute decreases up to 2.0% (in type 2 diabetes) at 3 to 6 months.³⁹ Diabetes-focused MNT should be provided by a registered dietitian nutritionist/registered dietitian (RDN), preferably one who has comprehensive knowledge and experience in diabetes care. Ongoing MNT support is helpful in maintaining glycemic improvements. When initiating mealtime insulin, consistent carbohydrates help reduce the risk of hypoglycemia. Food insecurity & health literacy and numeracy can be assessed and facilitated by an individualized meal plan using food models or the plate method.⁴⁰ Referral to MNT should be considered at the same intervals that one would consider referral to Diabetes Self-Management Education and Support (DSMES).

Key Driver D2: List of Resources

Resource #	Description & Link
D2.1	Diabetes Self-Management Education Covered by all Ohio Medicaid & MyCare Ohio Managed Care Plans <i>Comparison table of DSMES and MNT.</i>

KEY DRIVER D3:

Effective Communication

Example Data Measure (not on Dashboard): Patient experience scores.

Beyond improving patient experience, improving communication skills has shown promising results on patient outcomes (such as A1C control) among diverse populations.⁴¹⁻⁴⁵ Sharing and discussing the articles and links below with staff and providers at your clinic over time is useful in emphasizing effective communication. If your practice is interested in communication skill-building workshops, please reach out to your QI coach who can facilitate these workshops with your practice.

KEY DRIVER D3a:

General Communication Practices of Physicians with High Patient-Satisfaction Ratings

Enhancing patient experience builds trust and engagement in care. In Resource D3a.1 below, the following provider strategies were associated with higher patient satisfaction scores:

- Identify and focus on patient's agenda by asking why they are here to see you today.
- Draw out the story with open-ended questions.
- Demonstrate listening and understanding such as responding empathetically and showing caring. An effective verbal strategy might include repeating back and recognizing a patient's concerns. Effective nonverbal strategies include sitting down, leaning in toward the patient, nodding, and eye contact.
- Provide detailed explanations of the clinical problem and offer a few choices in treatment options where possible.
- Complete the patient's agenda, including delivering what was promised or negotiating to address some less-pressing concerns later.

Key Driver D3a: List of Resources

Resource #	Description & Link
D3a.1	Communication Practices of Physicians With High Patient-Satisfaction Ratings <i>This Kaiser Permanent article by Tallman et al. describes the following provider strategies which were associated with higher patient satisfaction scores</i>

KEY DRIVER D3b:

Health Literacy

Poor health literacy is a stronger predictor of a person's health than age, income, employment status, education level, and race.

Key Driver D3b: List of Resources

Resource #	Descriptions & Links
D3b.1	Talking with Your Team About Health Literacy <i>The Cardi-OH slides can be shared in a 20–30-minute session with your practice team. The slides show a short 5-minute American Medical Association health literacy video, discusses ways to address health literacy, and encourages discussion among your care team about how you can identify and address health literacy in your practice.</i>
D3b.2	AHRQ Health Literacy Universal Precautions Toolkit <i>This toolkit can help primary care practices reduce the complexity of health care, increase patient understanding of health information, and enhance support for patients of all health literacy levels.</i>

KEY DRIVER D3c:

Motivational Interviewing

People's lifestyle and behaviors have an important impact on their health and quality of life,⁴⁶ and this is particularly relevant for adults with diabetes. A systematic review from 2013 found an overall statistically significant, modest advantage for motivational interviewing over comparison interventions, including traditional advice giving. The technique was found to be effective in a number of studies looking at adherence to medical advice, for example around self-monitoring of blood glucose and food intake and increasing levels of physical activity.⁴⁷ In simple terms, motivational interviewing is designed to encourage people with diabetes to talk themselves into making a change.⁴⁸ Both resources below are quick guides with example statements or role play on how to use the principles of motivational interviewing for busy primary care teams.

Key Driver D3c: List of Resources

Resource #	Descriptions & Links
D3c.1	Principles of Motivational Interviewing <i>Learn about principles of Motivational Interviewing (MI) as an approach to guide behavior change in patients. Cardi-OH's presentation includes a fictional patient case study and role play to demonstrate how to use select MI skills in clinical practice.</i>
D3c.2	Clinicians Pocket Guide on Motivational Interviewing <i>A Cardi-OH resource to support clinicians' use of motivational interviewing when counseling patients.</i>

KEY DRIVER D3d:

Culturally and Linguistically Appropriate Care

Culturally and linguistically appropriate care are a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations.

Key Driver D3d: List of Resources

Resource #	Description & Link
D3d.1	Think Cultural Health <i>Training resources are available on this website, a comprehensive clearinghouse of materials around the National Cultural and Linguistically Appropriate Services (CLAS) Standards, effective cross-cultural communication, and cultural humility.</i>

KEY DRIVER D3e:

Implicit Bias

Implicit bias refers to the attitudes or stereotypes that affect understanding, actions, and decisions in an unconscious manner. Implicit bias has been shown to impact decision making in health care where some groups are offered less treatment options or less evidence-based care.⁴⁹⁻⁵¹ Take the implicit bias test to increase your awareness of your biases. Standardized protocols assist in reducing implicit bias and are described in **Key Driver B**. Another example is using a diabetes treatment protocol (**Key Driver A2, Resource A2.1**) which can also help standardize care, thereby, reducing implicit bias. Resource D3e.1 below describes eight additional ways to mitigate implicit bias.

Key Driver D3e: List of Resources

Resource #	Description & Link
D3e.1	Eight Tactics to Identify and Reduce Your Implicit Biases <i>QuickTips, a blog from FPM Journal, provides eight tactics to mitigate implicit bias through introspection, mindfulness, perspective-taking, slowing down, individualizing care, checking your messaging, ensuring a culture of equity at your institution, and recognizing that this is a lifelong process.</i>

Key Driver E: Effective Supportive Relationships



Effective supportive relationships, which can influence health, include those between: 1) health care team members and people with diabetes, 2) health care team members, 3) people with diabetes and families/friends, and 4) clinics and community organizations and payers.

In other sections, we have provided selected evidence-based resources related to providing peer support through Diabetes Self-Management Education (**Key Driver D1:** DSMES), engaging patients in care (**Key Driver D3:** Effective Communication; **Key Driver A:** Appropriate and Timely Treatment, and **Key Driver B:** Access to High Quality Care), and links among clinic and community organizations (**Key Driver F:** Equitable Environment for Care). In this section, we focus on selected resources for effective care teams and joy in work.

KEY DRIVER E1: Effective Care Teams

Example Data Measure (not on Dashboard): Teamwork measure at baseline and follow-up via survey.

Team-based care has been strongly associated with improved A1c,⁵²⁻⁵⁶ yet developing and sustaining strong teamwork and a team culture can be challenging.

Key elements of team building include:

1. Defined goals and objectives
2. Strong clinical and administrative systems with effective protocols and policies for delivering high quality care, including adequate staffing ratios
3. Division of labor with clear tasks and roles
4. Training on job roles/tasks, including cross-training
5. Communication structure (e.g., meetings, huddles) and processes (e.g., conflict resolution)⁵⁷

Developing quality improvement (QI) teams (see [Appendix 1: Initiating QI Program Activities](#) on page 50) and using QI tools (see [Selected Quality Improvement Tools](#) on page 44) for Plan, Do, Study, Act cycles assists with elements of teamwork, such as providing leadership, defining goals, developing role clarity and structure, introducing small changes in job tasks, introducing cross-training, and introducing communication structures and processes. While these will be focused on the specific QI goal, there can often be spillover impact to other conditions which can be used as a steppingstone to larger team building efforts.

Below are selected resources around teams not already provided in other sections of the toolkit. Resources E1.1 and E1.2 may be useful to medical directors or leadership as they work to establish and maintain high-functioning primary care teams. These activities often need to be accomplished over a period of time and may go beyond an individual QI activity or project. Resources E1.3—E1.8 are shorter focused materials for establishing huddles, team culture and psychological safety as you conduct the diabetes QI project itself.

Key Driver E1: List of Resources

Resource #	Descriptions & Links
E1.1	Primary Care Team Guide <i>Website guide with step-by-step direction on how to establish and maintain high-functioning primary care teams with featured resources and modules and provides.</i>
E1.2	TeamSTEPPS <i>An evidence-based set of teamwork tools, aimed at optimizing patient outcomes by improving communication and teamwork skills among health care professionals.</i>
E1.3	Dartmouth Health Learning Video: Initiating Team Huddles <i>This video serves as a training tool for department leaders and their staff to support them as they begin initiating huddles in their respective areas.</i>
E1.4	AMA Team Huddle Checklist <i>Use this modifiable checklist to lead your team through efficient, effective huddles at the beginning of the clinic day or session.</i>
E1.5	Cardi-OH Utilizing Huddles to Improve Team-Based Care <i>Learn about different types of huddles in clinical practice and suggested strategies for successful implementation.</i>
E1.6	Team Culture Video <i>The Waterline Model video is a tool for diagnosing and solving team problems.</i>
E1.7	Creating Psychological Safety in Teams <i>AHRQ's EvidenceNow Initiative provides helpful tips to create and promote psychological safety in care teams.</i>
E1.8	Three Ways to Create Psychological Safety in Health Care <i>This Harvard Business School video describes three key actions to foster a psychologically safe work environment.</i>

KEY DRIVER E2:

Creating Joy in Work Within Healthcare Teams

Example Data Measure (not on Dashboard): Employee engagement survey which includes burnout measure at baseline and follow-up via survey.

Joy in work (or engagement) is more than the absence of burnout and allows the care team to provide better care in a sustainable way.⁵⁸⁻⁵⁹ Joy is usually grounded in the relationships that providers form with people with diabetes, with colleagues, and with family and friends.⁶⁰⁻⁶¹ Joy in work has been described as having 3 domains: 1) culture of wellness which includes burnout, 2) efficiency of practice, and 3) personal resilience. Burnout, one element within the culture of wellness, is present in over 50% of providers as well as other members of the health care team. As a syndrome that is uniquely dependent on social and organizational contexts, burnout is considered to be an occupationally specific dysphoria.⁶² Professionally, burnout adversely affects productivity, quality, safety, patient satisfaction, and turnover.⁶³⁻⁶⁶

Key Driver E2: List of Resources

Resource #	Descriptions & Links
E2.1	Creating the Organizational Foundation for Joy in Medicine <i>AMA STEPS Forward Module describes the organizational strategies to implement a culture of wellness, workflow efficiency, and personal resilience.</i>
E2.2	Resources to Support Joy in Work <i>Cardi-OH outlines tools and strategies to promote staff engagement and satisfaction and improve clinical workflows and patient outcomes.</i>

Key Driver F: Equitable Environment for Care



In this section, we provide resources that can support the development of equitable environments for care of people with diabetes. Creating an equitable environment for care is critical to reducing disparities in diabetes outcomes among Medicaid beneficiaries through our collaborative. Topics include a framework for integrating health equity priorities into quality improvement (Resource F1.1), screening and referral for addressing social drivers of health (Resources F2.1-F2.4), understanding and addressing racism and inclusive resources for diverse populations (Resources F3.1-F3.6).

Dashboard Data Measures: % of adults with diabetes and A1c >9 screened for social needs in the last year, % of adults with diabetes and A1c >9 who screened positive for a social need and referred to address that need.

****We will also be collecting demographic data to be able to measure and conduct PDSAs on other process and outcome measures to view and eliminate disparities. Please work with your QI coach to establish a disparity aim and determine which measures you will follow for that aim*

While it is essential that we work to improve diabetes quality outcomes, like A1c, for all our patients, creating an equitable environment of care through prioritizing measurement of disparities and interventions designed to address the causes of those disparities is also critically important. Social drivers of health, interpersonal and systemic racism, and lack of inclusion contribute strongly to disparities in diabetes outcomes.⁶⁷⁻⁶⁹

KEY DRIVER F1:

Health Equity Framework

To narrow persistent disparities in health outcomes, it is helpful to have a practical framework to design interventions that have the potential to advance equity. The **PETAL** framework⁷⁰, which stands for **P**rioritize health equity, **E**ngage the community, **T**arget health disparities, **A**ct on the data, and **L**earn and improve, provides a structure for integrating health equity into a learning health system. This framework includes real-world examples to build infrastructure within your practice project to address disparities.

Key Driver F1: List of Resources

Resource #	Description & Link
F1.1	<p>Using the PETAL Framework to Advance Health Equity</p> <p><i>Cardi-OH's Capsule provides information on the PETAL framework that can be applied to integrate health equity into a learning health system or quality improvement efforts and provides examples of how to apply an equity framework to a QI project in primary care.</i></p>

KEY DRIVER F2:

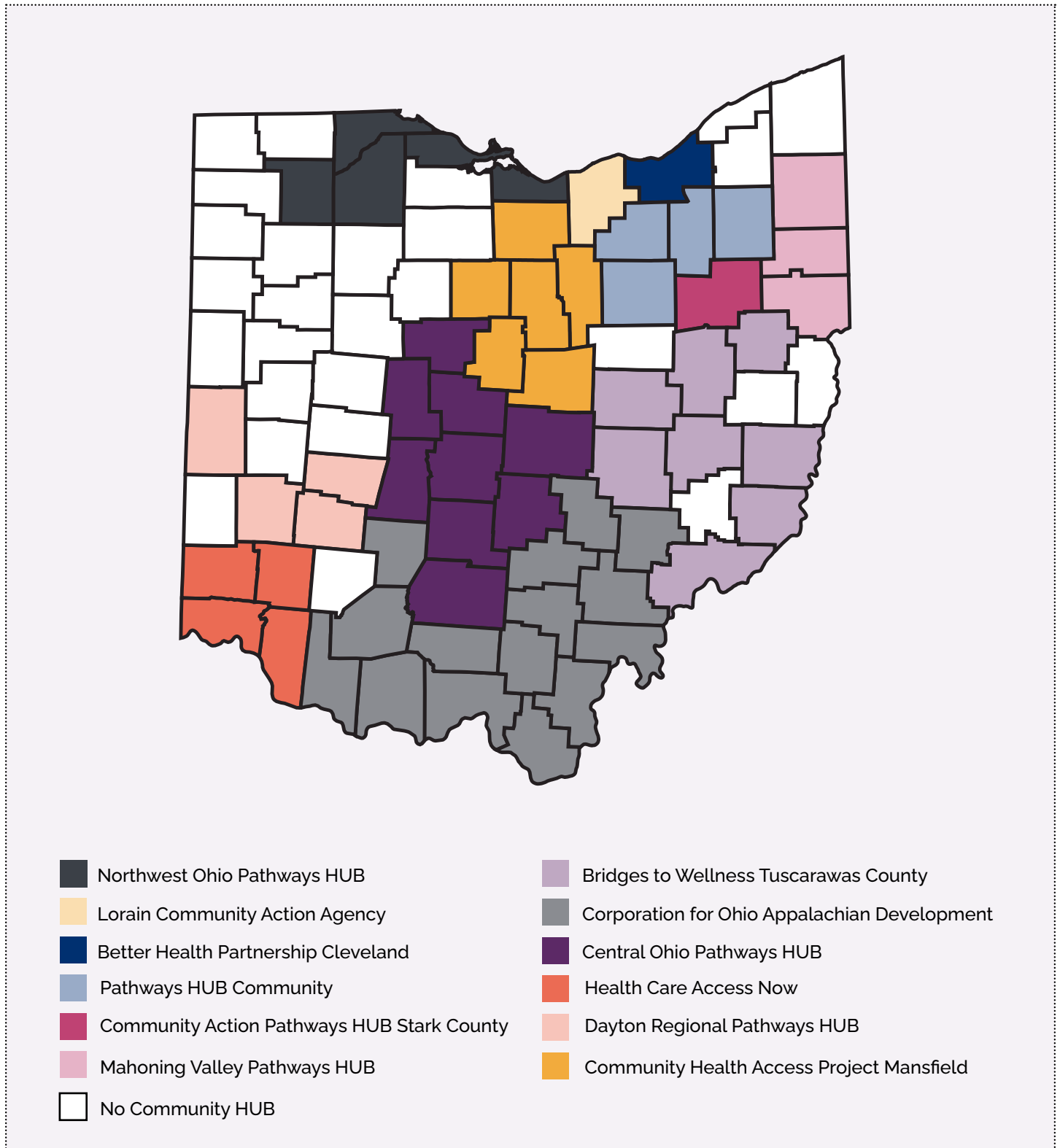
Identifying and Addressing Health-Related Social Needs

We know that 80-90% of the modifiable factors contributing to health are related to social, environmental, and structural context.⁷¹ These factors, referred to as the social drivers of health, often contribute to the root causes of health outcome disparities in diabetes⁶⁷ and screening for and addressing social needs is one potential pathway to reducing diabetes disparities. The resources below include validated tools to screen for social needs in the primary care setting, as well as resources around referral to social care providers for patients who screen positive for social needs and desire assistance connecting to resources.

Key Driver F2: List of Resources

Resource #	Descriptions & Links
F2.1	<p>Summary of Social Needs Screening Tools;</p> <p><i>This resource provides a list of tools used in primary care settings to screen for social needs and shares lessons learned from the implementation of social needs screening.</i></p>
F2.2	<p>Ohio Network of Certified Pathways Community HUBs</p> <p><i>This document provides contact information for your primary care practice to connect with a Pathway HUB within your area of Ohio. Pathway HUBs assign a community health worker to work with a client to address their health-related social needs. See map below.</i></p>
F2.3	<p>There are multiple sites that provide resources available to assist providers in finding community resources for patients to address health-related social needs including:</p> <p>United Way 211 <i>Get assistance for your social service needs 24 hours a day.</i></p> <p>Findhelp.org <i>Financial assistance, food pantries, medical care, and other free or reduced-cost help.</i></p> <p>Unite Ohio <i>A coordinated care network to connect to much-needed wraparound supportive services.</i></p>
F2.4	<p>The EveryONE Project Assessment and Action</p> <p><i>American Academy of Family Physicians has additional resources for identifying and addressing social drivers of health exist on their website.</i></p>

Resource F2.2: Ohio Network of Certified Pathways Community HUBs



Source 2022: healthimpactohio.org

KEY DRIVER F3:

Anti-Racism and Inclusive Resources for Diverse Populations

Recognizing that there are many groups impacted by bias and disproportionately by health disparities including immigrant and refugee communities, LGBTQIA+ communities, migrant and agricultural workers, people with disabilities, and people with a history of justice involvement. Below are selected resources about anti-racism, LGBTQIA+ communities, people with disabilities, and culturally and linguistically appropriate services. Please reach out to your Quality Improvement Coach if other resources are needed by your practice to better serve your populations.

Key Driver F3: List of Resources

Resource #	Descriptions & Links
F3.1	Allegories on Race and Racism <i>In TEDx Emory video, Dr. Camara Jones discusses racism definitions and ways to address it.</i>
F3.2	The 21-Day Antiracism Challenge <i>The challenge includes suggestions for readings, podcasts, videos, observations and ways to form and deepen community connections.</i>
F3.3	Anti-Racism Learning and Reflection Tool <i>University of California designed this tool to facilitate learning, self-reflection, and conversations with respect to anti-racism and is a rubric that allows team members to assess where they are as far as supporting anti-racist practices in their team/ workplace.</i>
F3.4	Improving Care for LGBTQIA+ Patients: Creating an Inclusive Practice <i>This Cardi-OH resource offers seven domains for the provision of excellent care for LGBTQIA+ people and includes recommendations for clinicians and building a clinical environment supportive of LGBTQIA+ patients.</i>
F3.5	Increasing Physical Activity and Exercise in Adults with Disabilities <i>This Cardi-OH resource details special considerations and recommendations for physical activity for adults with disabilities.</i>
F3.6	National Culturally and Linguistically Appropriate Services (CLAS Standards) <i>These are a set of 15 action steps intended to advance health equity, improve quality, and help eliminate health care disparities by providing a blueprint for individuals and health and health care organizations to implement culturally and linguistically appropriate services.</i>

Selected Quality Improvement Tools



PDSA Worksheet

PDSA, or Plan-Do-Study-Act, is an iterative, four-stage problem-solving model used for improving a process or carrying out change. The completion of each PDSA cycle leads directly into the start of the next cycle. This allows you to use the knowledge gained to plan the next test. The team continues with this iterative process, refining the change until it is ready for broader implementation.

Before implementing each PDSA cycle, work with your team to answer the following questions:

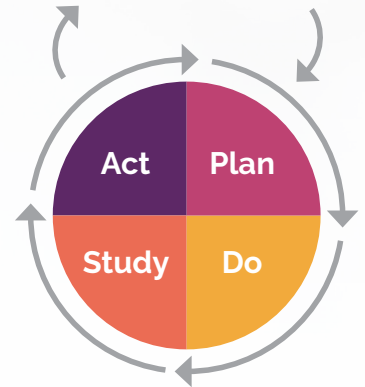
1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in an improvement?

The PDSA cycle begins with the Plan phase. This involves identifying setting an aim or identifying a goal, gathering baseline data, selecting an intervention to help achieve that goal, and defining measures of success. This is followed by the Do phase, in which the selected intervention is implemented. In the Study phase, you will: review and analyze the data collected, determine if the test of change resulted in the expected outcome, discuss any implementation lessons from the Do phase, and summarize what was learned which includes identifying unintended consequences, surprises, successes, failures. During the Act phase, reflect on the PDSA cycle and decide if your next step is to: adopt, adjust, or abandon.

1. PDSA Worksheet

Model for Improvement: Plan-Do-Study-Act (PDSA) Cycles

What are we trying to accomplish?
How will we know that a change is an improvement?
What change can we make that will result in improvement?



Adapted from Langley, G.J., Moe, R.D., Nolan, K.M., Nolan, T.W., Norman, C.L., & Provost, L.P. (2009). *The improvement guide* (2nd ed.). Jossey Bass Wiley.

Process Mapping Overview and Instructions

A process map is a planning and management tool that visually describes the flow of work. Process Mapping is the technique of using flowcharts to illustrate the flow of a process, proceeding from the most macro perspective to the level of detail required to identify opportunities for improvement. Process mapping focuses on the work rather than on job titles or hierarchy.

1. [Process Mapping Overview and Instructions](#)

Short Form Failure Mode Effects Analysis

The short form Failure-Mode-Effect-Analysis (FMEA) is an online tool for a narrative description of process failures. Teams might find the short form FMEA useful as a "starting point" tool to identify and discuss process failures, then generate potential interventions to test. Processes that require a greater understanding of specific technical steps in high-precision processes may start with the short form but will likely achieve greater understanding using the more traditional FMEA format.

Traditional FMEA is used to prospectively examine how failures could occur during high-risk processes in order to identify the parts of the process that are most in need of change. FMEA also involves documenting current knowledge about failure risks. FMEA seeks to mitigate risk at all levels with resulting prioritized actions that prevent failures or reduce their severity and/or probability of occurrence. FMEA is useful in evaluating a new process prior to implementation and in assessing the impact of a proposed change to an existing process.

1. [Short Form Failure Mode Effects Analysis](#)
 2. [Failure Modes and Effects Analysis \(FMEA\) Tool, Institute for Healthcare Improvement tools](#)
-

Pareto Chart

A Pareto chart is a bar graph that is useful for identifying the most frequent cause of a variable(s) which can help teams prioritize their quality improvement efforts. See below for Resource 1, an Excel template to help you create a Pareto chart. It contains a prepopulated example of causes for no shows for medical appointments, but it can be edited to use for your quality improvement project. Resource 2 (video clip) provides an overview of using Pareto charts. Resource 3 provides a link to a more detailed explanation of using Pareto charts.

1. [Pareto - Excel Template](#)
2. [Pareto Chart Overview video](#)
3. [Pareto Chart, Institute for Healthcare Improvement tools](#)

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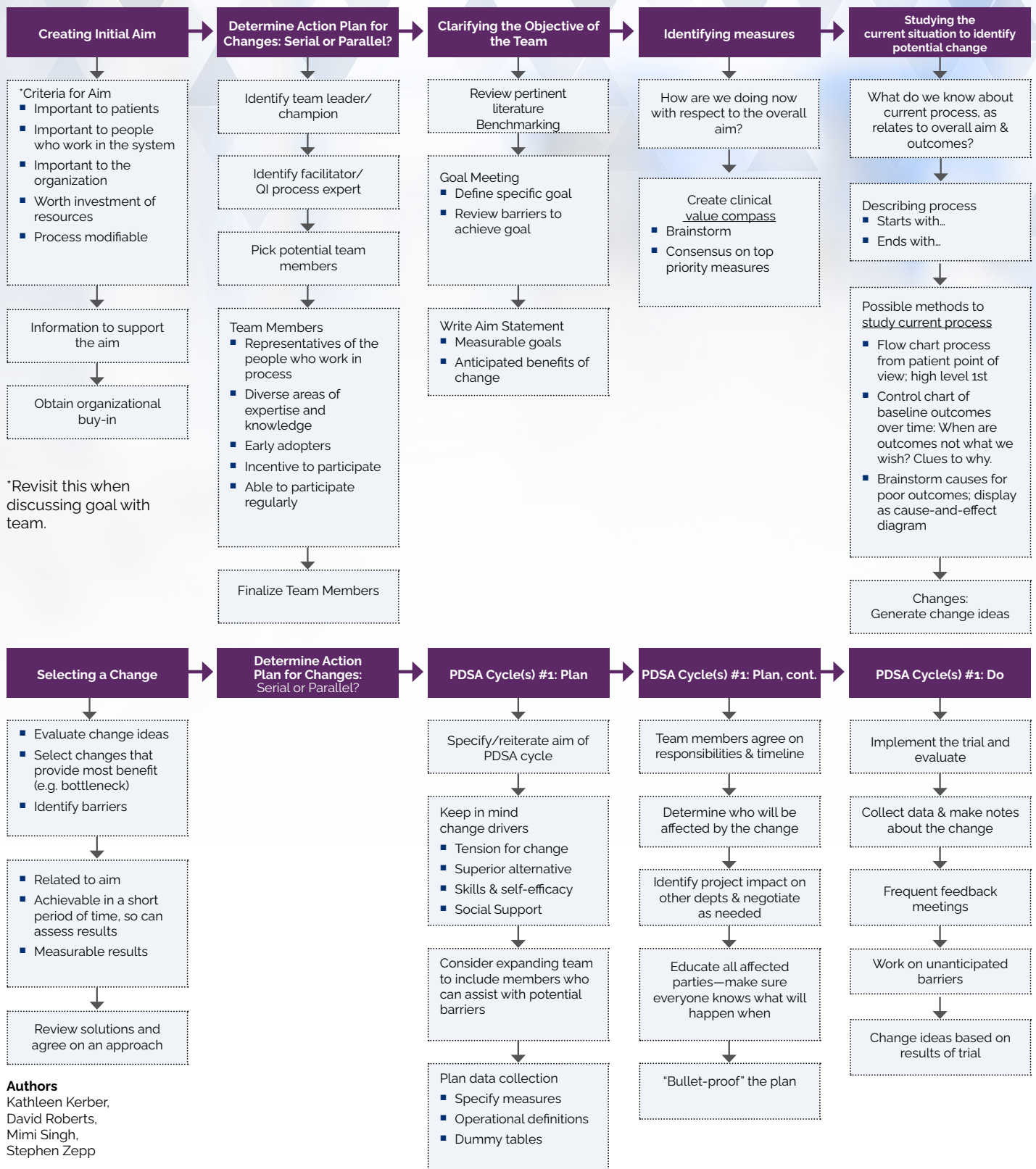
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Appendix 1 : Initiating QI Program Activities

Toolkit Resource 1: Graphic on Launching an Improvement Project



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Appendix 2 : Key Driver A1: Blood Sugar Monitoring Resource A1.2: Structured Self-monitoring Blood Glucose Tool



ACCU-CHEK®

Accu-Chek 360° View Tool

PATIENT NAME (Optional) _____ MEDICATION NAME _____ DOSE (UNITS) _____ TIME/DAY _____

WARNING: Do not adjust your prescribed oral medication or insulin therapy without first consulting your healthcare professional.

		DAY 1					DAY 2					DAY 3										
		Date _____					Date _____					Date _____										
		Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Before bed	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Before bed	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Before bed
Time																						
Meal Size S M L		-	S M L	-	S M L	-	S M L	-	S M L	-	S M L	-	S M L	-	S M L	-	S M L	-	S M L	-	S M L	-
Energy Level*		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Blood Glucose																						
BLOOD GLUCOSE RANGE**	TOO HIGH	>16.0 mmol/L																				
		13.8–16.0 mmol/L																				
		11.5–13.7 mmol/L																				
		9.1–11.4 mmol/L																				
		7.1–9.0 mmol/L																				
	BEFORE MEAL GOAL	4.0–7.0 mmol/L																				
	AFTER MEAL GOAL	5.0–9.0 mmol/L																				
TOO LOW	3.0–3.9 mmol/L																					
	<3.0 mmol/L																					

*ENERGY LEVEL					
What is your energy level?	1	2	3	4	5
	Very Low	Low	Moderate	High	Very High

**Target ranges should be chosen and agreed upon between you and your healthcare professional.

What did you learn from this 360° analysis of your blood sugar results?

Please take your completed form to your healthcare professional for review.

Polonsky WH, et al. Structured self-monitoring of blood glucose significantly reduces A1C levels in poorly controlled, noninsulin-treated type 2 diabetes: results from the Structured Testing Program study. Diabetes Care. 2011;34(2):262-267. <https://www.accu-chek.co.uk/tools-and-resources/blood-glucose-monitoring/accu-chek-360deg-view-tool>

Appendix 3 :

Key Driver B1: Timely Follow-up

Resource B1.2: Prescribing Provider Visit Template

Patient Information					
Name:					
Reason for visit/patient comments:					
Last four A1c results and dates:		Today:	Date:	Date:	Date:
Last 3 BP readings with dates, including today:		Today (/)	Date: (/)	Date: (/)	
If A1c above individual's target, does individual check blood glucose levels?		Yes	No		
Was glucometer brought to visit?		Yes	No		
List blood glucose readings and times <i>(consider documenting 7-day average, pre-meal, post-meal and bedtime blood glucose for several days if on insulin – can scan into EHR):</i>					
Has person had BG over 250? <i>If yes assess timing, frequency & possible causes</i>		Yes	No		
Has person had hypoglycemia (<70)? <i>If yes assess timing, frequency & possible causes</i>		Yes	No		

Goal Setting		
Individual Goal for A1c: _____	Individual target range for fasting BG level: <i>Blood Glucose & A1c targets *A1c targets should generally fall between 6.5-8.0 to maximize reductions in complications while minimizing harms such as hypoglycemia. Blood sugar ranges matching an A1c target of 7-8 should be 80-130 mg/dl pre-meal, <180 mg/dl max postprandial. These blood sugar ranges would need to be adjusted if A1c targets are higher.</i> ____ TO ____	Individual Goal for Blood Pressure: <i>(< 130/80 recommended unless unable to tolerate)</i> _____
List Current Medications: <i>Ask person with diabetes to describe how they take their diabetes, hypertensive and cholesterol medications, including insulin. Ask if there is a blood sugar number that patient does NOT take their insulin. If adherence is identified as an issue, discuss barriers to taking medication (timing, side effects, social situations, etc.) and establish an action plan.</i> _____		Medication Adherence: Yes No
Concurrent Use Of: <i>(check all that apply)</i> Steroids Atypical Steroids	Current Exercise/Activity Pattern: _____	
Current Diet/Meal Plan: <i>(specific attention to the following: drinking carbs via milk, fruit juice or soda, alcohol use causing low sugars, meals/day and issues around food insecurity):</i> _____		

Resource B1.2: Prescribing Provider Visit Template — *Continued*

Please Check Yes or No if the Patient Engages in Any of the Activities Below:

Drink alcohol:	Yes	No	If yes, how frequently: _____
Use nicotine products:	Yes	No	If yes, what kind & how frequently: _____
Use other substances:	Yes	No	If yes, what & how frequently: _____
Depressive symptoms:	Yes	No	If yes, last PHQ score & date: : _____
Barriers to social needs:	Yes	No	If yes, what: _____
Does the patient have a social support system:	Yes	No	If yes, who: _____
History of diabetes-related complications:	Microvascular: eye, kidney, nerve (tingling, numbness, pain) Macrovascular: cardiac (chest pain, palpitation, DOE, exertional and rest shortness of breath, lower ext. swelling), PAD (Claudication). History of Diabetic Foot Ulcer/Amputation Other: sexual dysfunction, gastroparesis		

Health Maintenance: (Pull from EHR)

Date of Last:	
Dental Check-Up: _____	Serum creatinine and GFR: _____
Eye Exam: _____	Liver Function Test: _____
Flu Shot: _____	Pneumococcal vaccine: _____
Lipids: _____	Hepatitis B vaccine: _____
Microalbuminuria: _____	Shingles vaccine: _____

Physical Exam and Labs as Appropriate: Bring in Vitals and Labs From EHR

Height: _____	Microalbuminuria present?
Weight: _____ lbs	Yes No
BMI: _____	
Other Findings:	If yes, is patient on ACE-I/ARB or allergy to ACE-I/ARB?
	Yes No
	If age 40-75 years, is patient on statin or unable to tolerate statin?
	Yes No N/A
<small>Include foot exam at least yearly – inspection, monofilament and vibration test Any pertinent lab results with dates: comprehensive metabolic panel, microalbumin, liver function tests, lipid panel</small>	<small>For other ages, please review ASCVD risk and lipids and individualize cholesterol medication needs with patient.</small>

Resource B1.2: Prescribing Provider Visit Template — *Continued*

Diabetes Assessment & Plan		
Has the person ever had diabetes self-management education?	Yes	No
Was diabetes education provided? <i>Comprehensive Diabetes Education as needed should address meal plan, physical activity, information about hypoglycemic and hyperglycemic symptoms, sick day and review of foot care.</i>	Yes	No
Other plans: <i>(med changes, diet/exercise etc...) based on visit assessment and discussion.</i>	If yes, what:	

Referrals: <i>(as needed)</i>		
Ophthalmologist Podiatry Nephrologist	Cardiologist Dietitian Weight management	Diabetes self-management education Psychology/psychiatry Social service Other



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