How Digital Health Tools Can Strengthen Shared Decision Making

Priyanka Desai, PhD, MSPH, CPH; Frances Jimenez, MPH; Rachel Kurtzman, PhD; Ruth Nwefo, MPH; Polina Kukhareva, PhD; Mustafa Ozkaynak, PhD; Prashila Dullabh, MD, FAMIA

BACKGROUND

What Is Shared Decision Making?

- Shared decision making (SDM) is a collaborative process among patients, caregivers, and clinicians.
- In SDM, patients are asked about their preferences, values, and goals.[1,2]
- These individual factors are considered along with clinical guidance to make the best decision for the patient.[3]

What Is Patient-Centered Clinical Decision Support?

- Patient-centered clinical decision support (PC CDS) includes digital health tools that help patients, caregivers, and clinicians make evidence-based decisions that consider a patient's needs, values, and preferences.[4]
- PC CDS tools significantly incorporate patient-centered factors related to knowledge, data, delivery, and use.

OBJECTIVES

- Create a framework that describes how PC CDS can support each step of the SDM process.

METHODS

- We leveraged a prior literature review of 21 SDM tools and five systematic reviews to explore the role of PC CDS in SDM.
- We then cross-walked three PC CDS factors (knowledge, data, and delivery) with the Agency for Healthcare Research and Quality (AHRQ) SHARE Approach.[5]
- The crosswalk was then validated through interviews with two researchers, two patient advocates, and an AHRQ CDS Innovation Center Stakeholder Center Workgroup.

CONTACT & ACKNOWLEDGMENT

Priyanka Desai, PhD, MSPH, CPH
Principal Research Scientist
NORC at the University of Chicago
Desai-Priyanka@norc.org

This project was funded under contract number 75Q80120D00018 from AHRQ.

Scan to access the resource!

PRINCIPAL FINDINGS: HOW CAN PC CDS SUPPORT SHARED DECISION MAKING?

The PC CDS-SDM Framework: Using PC CDS tools to support each step of the SHARE Approach.

	Seek *Seek patient participation*	**Help** *Help patients explore and compare options*	**Assess** *Assess patient values, preferences, and goals*	**Reach** *Reach a decision with patients*	**Evaluate** *Evaluate patient decisions and goals*
Knowledge	Reminders can make sure patients or clinicians initiate a SDM conversation based on patient-centered research.	Tools can share information on options backed by research.	If clinically appropriate, tools can signal when patients should provide preferences, values, and goals and when clinicians should review them.	Tools can provide patients and clinicians with recommendations supported by research.	If new research becomes available, tools can suggest that patients and clinicians revisit a decision or goal.
Data	Tools collect patient health history, demographics, health needs, and preferences to indicate when patients need to make a health-related decision.	Tools can use patient data to personalize the risks and benefits of options.	Tools can collect and present patient values, preferences, and goals to help clinicians and patients consider the tradeoffs of options.	Tools can help patients and clinicians reach a decision that is guided by patient-provided data.	Tools can collect patient data needed to monitor progress toward goals. Data can help identify necessary changes if a patient regrets a decision or updates their goals.
Delivery	Tools can tell patients and clinicians that a decision should be made and help establish a patient-clinician partnership.	Tools can help patients and clinicians talk through options and research findings supporting those options.	Patient-facing tools can ask patients about relevant preferences, values, and goals. Clinician-facing tools can send patient information to clinicians to guide decisions.	Tools that are both patient- and clinician-facing can facilitate the partnership needed to reach a decision.	After an initial decision, tools can help patients and clinicians decide whether other options should be considered.

IMPLICATIONS FOR POLICY & PRACTICE

PC CDS developers, researchers, and health systems should consider real-world implementation factors to facilitate patient and clinician use.

Patient Empowerment & Activation

- PC CDS tools should incorporate an explanation of the importance of patient participation.

Data Visualization

- PC CDS tools should use data visualization tools and principles to aggregate, meaningfully interpret, and present complex data to patients, caregivers, and clinicians.

Implementation

- PC CDS tools should provide information to patients and caregivers in advance to help them prepare for SDM during the visit.
- PC CDS tools should integrate talking points to support clinicians engage in SDM discussions with patients.
- Data should be actionable, relevant, and delivered in ways that allow clinicians to easily digest patient-reported data.

Health & Digital Literacy

- PC CDS tools should provide information that aligns with best practices for risk communication and health literacy.

CONCLUSION

- PC CDS that support SDM can empower patients and caregivers with the knowledge needed for informed choices while also strengthening the patient-clinician relationship.

REFERENCES

1. Kuperman G, Nanji K, Cope EL, Dullabh PM, Desai PJ, Catlett M, Weinberg S, Hoyt S, and the CDSiC Outcomes and Objectives Workgroup. Outcomes and Objectives Workgroup: Taxonomy of Patient Preferences. Prepared under Contract No. 75Q80120D00018. AHRQ Publication No. 23-0038- EF. Rockville, MD: Agency for Healthcare Research and Quality; May 2023.
2. About Shared Decision Making. Content last reviewed May 2023. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/sdm/about/index.html
3. Elwyn G, Frosch D, Thomson R, et al. Shared decision making: a model for clinical practice. J Gen Intern Med. 2012;27(10):1361-1367. doi:10.1007/s11606-012-2077-6.
4. Clinical Decision Support Innovation Collaborative. Infographic: Patient-Centered Clinical Decision Support Explained. Accessed March 10, 2026. https://digital.ahrq.gov/sites/default/files/Patient%20Centered%20CDS%20Infographic_508_1.pdf
5. The SHARE Approach. Content last reviewed October 2024. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/sdm/share-approach/index.html