The term Clinical Decision Support (CDS) refers to the emerging sets of tools—primarily digital—that assist clinicians, patients, and health care teams through the seamless delivery of the most appropriate information at the point and time of key care decisions. As the volume, complexity, and changing nature of medicine increases, CDS is a practical necessity in our rapidly evolving health and health care landscape.

The result of a collaboration of the National Academy of Medicine (NAM) and the Office of the National Coordinator for Health Information Technology, the NAM Special Publication, Optimizing Strategies for Clinical Decision Support: Summary of a Meeting Series, summarizes and builds upon a multi-stakeholder meeting series. During the meeting series, experts explored the potential of clinical decision support (CDS) to transform care delivery by ameliorating the burden that expanding clinical knowledge and care and choice complexity place on the finite time and attention of clinicians, patients, and members of the care team, and to address the barriers to realizing the full benefits of CDS-facilitated value improvement.

Common Themes That Emerged

- Much like in-person peer learning (e.g. grand rounds with residents), CDS should serve as a tool to help clinicians at the front line think through options at the point of care.
- Current challenges include the various pathways for implementation of CDS within different health care organizations, lack of standards and incentives to use and improve CDS, poor data quality, and gaps in the evidence.
- One of the greatest challenges for scaling CDS adoption is its limited financial business case. It remains difficult to demonstrate the return on investment of CDS, especially against many competing priorities at the delivery system level.
- Current CDS lacks measurement practices and standards. Evaluation of current and future CDS should assess whether it measurably improves quality, health outcomes, safety, cost, and physician productivity.
- The current health ecosystem presents opportunities for:
  - increased engagement of stakeholders in the design, implementation, and use of CDS;
  - the incorporation of new knowledge, including patient-reported outcomes and contextual information, into CDS;
  - a renewed focus on clinical decision support for health care teams;
  - the creation of new multistakeholder partnerships to develop practical implementation tools and lead standardization and regulatory efforts;
  - the development and deployment of CDS for public health response; and
  - the strengthening of the CDS implementation evidence-base.

Priorities for Collaborative Action

1. Establish CDS technical standards
2. Engage federal leadership for CDS standards innovation and maturation
3. Create a CDS technical information resource
4. Disseminate best practices
5. Create a national CDS repository
6. Measure CDS usage
7. Develop tools to assess CDS efficacy
8. Publish performance evaluations
9. Market CDS to stakeholders
10. Promote financing and measurement to accelerate CDS adoption
11. Create a legal framework for CDS
12. Develop a multi-stakeholder CDS learning community to inform usability
13. Establish an investment program for CDS research