Editorial

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Foreword: addressing diagnostic error: the first 10 years

https://doi.org/10.1515/dx-2025-0131

The Past. The modern patient safety movement was catalyzed by the death of Betsy Lehman in 1995 from an overdose of her chemotherapy drug, and was solidified by the publication of the Institute of Medicine's now-classic "To Err is Human" series. Diagnostic error was barely a footnote in this pioneering work, which focused primarily on errors related to medications, procedures and surgery.

The 2015 publication of "Improving Diagnosis in Health Care" (Figure 1) put diagnostic errors squarely in the middle of the patient safety movement. The past 10 years have witnessed an increasing recognition of the problem of diagnostic error and the substantial amount of harm that it causes.

The Present. There has been significant progress in this new field, with thousands of professionals and patients now engaged. We have a good understanding of how many errors are occurring, why they occur, and what possible strategies could reduce them. All of this progress was catalyzed by the pioneering work of the Society to Improve Diagnosis in Medicine (SIDM; which dissolved in 2023), many members of which now belong to the Community to Improve Diagnosis in Medicine (CIDM), with key funding from AHRQ, the Gordon and Betty Moore Foundation, other foundations, and private supporters.

Researchers and clinicians from many other countries have now joined the US-based efforts to address diagnostic safety, including Australia, Japan, the Netherlands, Switzerland, and the UK. In 2015, it was unusual to find a publication on any topic related to diagnostic error; now there are hundreds every year from around the globe. This past year, 2024, was especially noteworthy: a) The World Health Organization dedicated World Patient Safety Day to improving diagnosis; b) the CDC in the US developed Core Elements for Diagnostic Excellence for US hospitals; and c) The Leapfrog Group added diagnostic safety elements to its survey of hospital safety. In 2025, the National Quality Forum will update its list of serious reportable events and two items will address potential diagnostic errors.

With the substantial progress that has been realized, however, there is a sobering question with no clear answer: Have we reduced harm or saved any lives?

The Future. With the problem so clearly defined and many new young researchers now interested in addressing it, we would love to say that the future looks bright. However, adoption of diagnostic safety practices remains a challenge and many concerns remain at the national level:

- Major accreditors such as The Joint Commission and others, have yet to prioritize diagnostic safety. The Centers for Medicare and Medicaid Services (CMS) has shown preliminary interest in diagnosis, but still needs to take concrete steps to improve it.
- Healthcare financing in general offers no incentives for more timely and more accurate diagnosis. A convincing business case for diagnostic safety has yet to emerge and commercial payers are generally not involved.
- The vast majority of healthcare organizations in the US, and internationally are preoccupied with other safety

Figure 1: Cover image from "Improving Diagnosis In Health Care", National Academies of Sience, Engineering, and Medicine. 2015. Washington, DC.

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Table 1: Top 6 causes of death in the United States, and the research funding dedicated in each area.

	Estimated annual deaths	Current annual funding for research	
		NIH research	Private foundation
Heart disease	930,000+	4,000+million	250+million (AHA)
Cancer	600,000+	7,200+million	200+million (ACS)
Diagnostic error	300,000+	<25 million (AHRQ)	<5 million – Private donors
Stroke	160,000+	2,200+million (NINDS)	100+million (AHA, others)
Infections	100,000+	6,000+million (NIAID)	200+million (Gates & others)
Diabetes	90,000+	2,000+million (NIDDK)	35+million (ADA)

AHRQ, Agency for Healthcare Research and Quality; NINDS, National Institute of Neurological Disorders and Stroke; NIAID, National Institute of Allergy and Infectious Diseases; NIDDK, National Institute of Diabetes and Digestive and Kidney Diseases; AHA, American Heart Association; ACA, American Cancer Society; Gates, Bill and Melinda Gates Foundation; ADA, American Diabetes Association.

problems such as infections, falls, and pressure ulcers because many of these have been incentivized for improvement efforts.

Literally hundreds of ideas have emerged on how to reduce diagnostic error and the harm it causes. These need formal investigation, and research support is foundational for further progress. But a sobering reality is that the current funding for research dedicated to diagnostic error is grossly inadequate (Table 1). Compared to other top causes of death, funding to study and prevent harm from diagnostic errors is negligible.

Our Hopes lie with the thousands of researchers, clinicians, patient advocates and healthcare leaders who now clearly see diagnostic error as a priority, and are enthusiastic to address it. This special issue of our DIAGNOSIS journal captures the remarkable progress these groups have realized over the past decade. Hopefully, the momentum can be sustained, and solutions that save lives and reduce harm will soon emerge. The problem, at least, is clear.

Acknowledgments: We sincerely thank the Gordon and Betty Moore Foundation and the Josiah Macy Jr Foundation for donations to support this special issue.
Research ethics: Not applicable.
Informed consent: Not applicable.
Author contributions: All authors have accepted responsibility for the entire content of this manuscript and approved its submission.
Use of Large Language Models, AI and Machine Learning Tools: None declared.
Conflict of interest: The authors state no conflict of interest.
Research funding: Gordon and Betty Moore Foundation; Josiah Macy Jr Foundation.
Data availability: Not applicable.