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Feature

AI scribes may miss critical SDOH data. Here's how to close the gap.

Despite their advantages for clinician productivity, AI scribes could worsen social determinants of health problems; still, there are steps providers can take to address these issues.

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In conversations with physicians during patient interactions, patients may bring up social determinants of health challenges, such as housing or food instability, transportation barriers or financial strain.

Sometimes AI scribes, which are increasingly used to record patient visits, do help to support SDOH data capture and allow this data to become part of a patient's EHR. But not always.

As **Maxim Topaz, Ph.D.**, **associate professor of nursing at Columbia University and senior research scientist at the** Center for Homecare Policy and Research at VNS Health, noted, AI scribes are suitable for capturing verbal exchanges clearly with a microphone, but social issues are sometimes missed.

"Social needs are often the part of a visit that is said quietly, said indirectly, said in a second language, or not said in words at all," Topaz said. "That mismatch is where most of the SDOH risk sits."

Currently, Topaz sees ambient scribes widening the gap in capturing SDOH data. He estimated that 30% of physician practices use AI scribes today, and most systems discard the audio and transcript shortly after the note is generated.

"Without that audit trail, you cannot even measure whether social needs are being captured or quietly lost," Topaz noted.

However, Kristine Lee, M.D., associate executive director and chief transformation officer for The Permanente Medical Group, believes that ambient scribes can also be helpful in capturing SDOH data.

"AI scribes [can be configured to] capture the full context of a visit, ensuring social needs are documented so care teams can flag challenges, such as food insecurity and housing instability, and route patients to essential social services," Lee says.

Thus, AI scribes can help or hinder SDOH data capture, and it is currently up to healthcare providers to avoid the pitfalls.

How AI scribes are amplifying SDOH challenges

Large language models that are trained on standard collections of medical text and guidelines could fail to document patients' psychosocial needs unless they are designed to factor in social determinants of health, according to Lee.

When LLMs fail to identify SDOH, that could leave patient data incomplete in EHRs, as a 2024 study in *npj Digital Medicine* explained.

"SDOH are rarely documented comprehensively in structured data in the electronic health records (EHRs), creating an obstacle to research and clinical care," the study stated.

That's because SDOH data in clinic notes is generally in the form of "free text" or unstructured data, and when this data can't be incorporated completely into an EHR, that creates barriers to data access for research and clinical care, the *npj Digital Medicine* authors wrote.

Meanwhile, Topaz noted the wide gap between what doctors and patients discuss in a visit and the information that ends up in the EHR.

For instance, in a home healthcare study he conducted with several other authors, about 50.5% of patient problems and 20.8% of interventions discussed during a patient visit never made it into the EHR, according to Topaz.

The reason? They were considered out of the immediate scope of the visit.

"Social needs are exactly the kind of content that gets dropped that way," Topaz said. "An ambient scribe sits on top of that same conversation, so it inherits whatever is raised or missed in the room and then makes its own decision about what is relevant enough to chart."

He explained that unless an EHR system is deliberately designed to highlight social needs, the program simply replicates the existing gap rather than closing it.

Another key problem with the speech recognition capabilities of AI scribes is that they don't always transcribe speech accurately for people with accents or those who cannot speak English fluently.

"Our own work and others' have shown these systems transcribe Black patients, and patients with accents or limited English proficiency, less accurately than White, native-English speakers," Topaz said.

In addition, social needs are often communicated indirectly or nonverbally, and the AI system cannot pick up visual cues as a clinician or in-person scribe could.

"A [human] scribe from the same community may also recognize cultural and social context that the model simply does not," he added.

Additionally, a 2025 Study by Topaz and others in *npj Digital Medicine* found that filtering algorithms could cause ambient scribes to worsen documentation gaps. AI filters could eliminate certain SDOH data, like housing instability information, that would be clinically important to include.

"Each of these failures lands hardest on the patients who already carry the most social risk, which is the textbook way a disparity gets wider," he said.

But ambient scribes can also help address SDOH issues
Though ambient scribes pose risks in terms of widening care gaps, they also offer benefits that could address SDOH challenges.

For example, AI scribes allow physicians to spend more time speaking with patients, enabling them to build a rapport, which could encourage patients to share SDOH information with providers, according to Lee.

In fact, at The Permanente Medical Group in Northern California, 39% of patients said their doctors spent more time speaking directly to them when using AI scribe technology, Lee said, citing the results of a study she co-authored in *NEJM Catalyst*. These direct interactions allowed patients to feel safer to share details of SDOH vulnerabilities with their physicians.

Lee further noted that AI scribes can be configured to capture the full context of patient visits to ensure social needs are documented. The scribes used at The Permanente Medical Group are customized to flag patient challenges, such as food insecurity and housing instability, and can direct patients to social services.

"We are looking forward to advanced input EHR technology to incorporate these more fully to make it easier for clinical teams to respond appropriately," she said.

The *NEJM Catalyst* study also revealed how AI scribes reduce physician workload. It saves users more than 15,700 hours, which is equal to 1,794 working days, over one year, compared with non-users of AI scribes.

The extra time also allows physicians to address SDOH issues directly with patients, according to Lee.

"By reclaiming thousands of hours once spent on documentation, physicians can focus more on proactive, personalized care for vulnerable populations," Lee said.

How to avoid AI scribe pitfalls in addressing SDOH

Providers use AI scribes not knowing if they will ultimately widen or close an SDOH gap, according to Topaz.

"There is a genuine upside case. Ambient capture could catch a housing or food-insecurity comment that a rushed clinician would never have stopped to type," Topaz said. "That only happens if the model is built to recognize and keep that content, if the transcription is accurate for the patient who is speaking, and if the clinician actually reviews the note."

Here are steps that health IT leaders can take to reduce the chances of AI scribes amplifying SDOH gaps.

Screening step: Topaz recommended that providers add a structured, "intentional" screening step to check for SDOH gaps. He also advised that AI scribes serve as a supplement to provider workflows rather than a replacement.

Lee explained that this screening step is required for Permanente physicians and clinicians.

"The technology is designed to produce a draft," Lee said. "Clinicians remain the final medical decision-makers and are responsible for ensuring medical, legal and billing accuracy of the record."

She added that physicians and clinicians at Kaiser Permanente are required to review, edit and approve all AI-generated notes.

"This helps catch omissions of structural psychosocial needs or contextual nuances," Lee said.

Topaz also advised that clinicians be trained to review AI notes for omissions of SDOH data. Omissions are more difficult to spot than obvious mistakes, he added, so having this screening process in place will be helpful to identify missing data.

Audit trail: Topaz suggested keeping an audit trail to determine whether social needs are being captured correctly or lost.

"If the audio or transcript disappears instantly, you have given up the ability to verify a note or investigate a complaint, so push for systems that keep traceable references back to the source," he said.

Adapt AI scribes to healthcare settings: Adjusting AI scribes to a specific type of practice could enable them to become more attuned to SDOH needs and create notes accordingly, Lee noted.

"A community health center managing chronic conditions and complex social determinants of health needs requires a different note structure than an urgent care clinic," she explained.

Involve patients and community members in decision-making: Keeping patients and community members involved in decisions about how tools are deployed and who signs off on them could help resolve questions and concerns about how scribe recordings of vulnerable populations are used, Topaz suggested.

By following these tips, healthcare providers can help bridge the gap between ambient scribes and SDOH.

Brian T. Horowitz started covering health IT news in 2010 and the tech beat overall in 1996.