# Practical Implications of Informatics

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*by Mary Butler*

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For decades, most consumers relied on one physician for all of their healthcare needs—their primary care physician—and that one physician knew the patient's entire health history and documented it in one place. This paradigm is starting to change, says Anupam Goel, MD, MBA, an internist with a board certification in healthcare informatics.

The healthcare system has "shifted to an increasingly specialized place where physicians have to consult with others and share information about a patient over the course of days, minutes, or months," Goel says.

Because of this shift, it's important to share information in such a way that the recipient can then synthesize the summary of a patient's care, as well as understand what relevant details are missing to make important diagnostic and therapeutic decisions, Goel explains. Health informatics helps with this transition by helping to build the framework with which critical health information is captured and shared.

## HIM Problem Solver:

Dr. Anupam Goel, MD, MBA, board-certified in healthcare informatics, VP of clinical information, Advocate Health Care, Oakbrook, IL

## Defining Health Informatics

For health information (HIM) professionals, conceptualizing what health informatics is and how it's applied is easier said than done. According to the Agency for Healthcare Research and Quality, medical informatics "deals with all aspects of understanding and promoting the effective organization, analysis, management, and use of information in healthcare."

However, that definition isn't very satisfying and can lead to more questions than answers. To understand how informatics is applied in healthcare, it's more helpful to look at why Goel decided to shift his career from internal medicine to being an internist/health informaticist.

"I've always had some interest in helping physicians make better choices. And so I got interested in 'how do physicians order tests and order medications' early in my career," Goel says.

He became even more interested in physician decisionmaking when he worked in a clinic where physicians ordered and patients could fill prescriptions for narcotic medications. In a paper-based world, it was much harder to track when a patient last filled a prescription, how many pills were dispensed, and what strength a patient's last dose was. In an electronic environment, this became much easier.

"The idea of ordering behavior and tracking narcotics were the two major drivers for me to figure out how I could get engaged in informatics," Goel explains.

## Where Informatics Fits

Goel says the classic challenge for informatics professionals is that they are often considered infrastructure people, "but we are behind the scenes, we build stuff, but we aren't necessarily as engaged with front line users as we could be. And I think that's an ongoing opportunity for us, to say here's how we think we could make your life better."

The end users, in this case, are the clinicians and HIM professionals who interact with and maintain the data collected and generated by electronic health records (EHRs). Goel says some of the benefits of informatics begin before a patient is even seen by a clinician. Informaticians often work with the IT and HIM departments on EHR implementation to ensure that information captured within a given platform is useful.

"For example, if you have a patient who says he's here [at an office visit] because he has a high blood sugar, that's different conversation than saying you have a patient with type 2 diabetes without complications," Goel says. "Those two phrases have different connotations for diagnosis and treatment to members of the care team. Helping physicians and other members of the care team think about how they structure that information helps make the transition of information much simpler."

One major challenge for health informaticists involves EHR workflow. Vendors have become so consolidated that a handful of vendors dictate how physicians enter information into a patient record. Physicians that are resistant to an EHR workflow might look for shortcuts and find other ways to get their work done, which can be detrimental. As a result, Goel says the demand for health informaticians is growing.

"So healthcare centers, clinics, hospitals, everyone's saying 'I need someone, a physician, to help explain to our physician community why we're making these changes.' As you adopt more, you want a doctor to be the spokesperson …not CIOs or CFOs, but a physician who can explain the changes being made," Goel says.

# The Benefits of Informatics

The role of a health informatician in a healthcare organization can be that of a neutral party that can work with clinical, HIM, IT, and the finance departments on the common goal of making the most of health information.

A healthcare professional with an informatics background can offer clinical insights for the end user of an EHR and they can work with HIM to ensure that data is handled properly in the long term.

Placing an informatics professional in an organization will force HIM professionals to "to think differently about how they interact with requesters of the chart, be it public healthcare providers, or the patients. So as the number of data elements multiplies, HIM will be tasked with doing a better job of parsing what's relevant for the appropriate customer aspect of the information," according to Goel.

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