How best can technical solutions address the global shortage of nurses? Ascom clinical experts discuss one of the most pressing issues facing healthcare systems worldwide.

By Gary Gunning

Jenny Arnesson, Paul Blankers, Nico Kok, Victor Riget, Tejs Povlsen and Mary York have at least three things in common: they are qualified nurses, they work at Ascom, they recently 'met' online to discuss the nurse shortage, and how communications technology can help. The discussion was moderated by Kathleen Snyder, Ascom's head of marketing for long-term care solutions, and herself a registered nurse.

"The WHO says the world needs an extra nine million nurses"

"Everyone in healthcare knows the world has a nurse shortage." With these blunt words, Kathleen Snyder kicks-off an hour long discussion with six work colleagues, all, like her, qualified nurses. She drives the point home by citing a startling figure from the World Health Organization (WHO): the world needs an extra nine million nurses by 2030 if all countries are to reach the UN's Sustainable Development Goal 3 on health and well-being.

And, she adds, contrary to what many might think, the shortage is not confined to less-developed countries.

"The WHO," says Snyder, "does indeed note that 'the largest needs-based shortages of nurses and midwives are in South East Asia and Africa.' But the WHO and other bodies also stress that the problem is global—no country is immune from it."

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As Snyder puts it, a "perfect storm" of factors lie behind the shortage. Most obviously, ageing populations mean more patients with complex and chronic conditions. Easier access to healthcare and expanded insurance programs are also helping to swell admissions. But patient numbers alone are not solely to blame for the lack of nurses. Recruitment is also an issue. And even when it isn't, many countries— for various reasons—struggle to train sufficient numbers.

"Take for example my own country, the U.S.," explains Snyder. "We have huge issues with a shortage of faculty in nursing colleges —a shortage compounded by deficits in clinical sites, classroom space and so on. In fact, the American Association of Colleges of Nursing reports that in 2019, shortages such as these led to U.S. nursing schools turning away 80,407 qualified applications for baccalaureate and graduate nursing programs."

Implications down the healthcare chain

For Paul Blankers of the Netherlands, a nurse shortage first became apparent in the late 1980s. "Prior to that," he says from the Ascom office in Utrecht, "we actually had too many general nurses in the Netherlands. But from 1985 to 1990 we began seeing shortages in ICU, theater and ER nursing levels. The change was fast, and it was noticeable."

The situation sketched by Blankers has only worsened over the years. Victor Riget, a Clinical Application Consultant with Ascom in Denmark, reports on his experiences with a major Danish hospital that cannot open all its wards because of nurse shortages.

"It's important to remember that it's not just the people waiting for treatment

and procedures who suffer in situations like this," he says. "Those in hospital risk receiving sub-optimal care when wards are under-staffed. And there's the physical and emotional toll on nurses as they work extra shifts to make up the shortfall. The nurse shortage has implications right down the healthcare chain."

The nurse shortage affects different healthcare sectors differently. Long-term care for the aged, for instance, is especially hard hit by the tight supply of skilled nursing staff. "Long-term care facilities have always had a challenge finding nurses," says Nico Kok, Ascom's Segment Manager for Elderly Care in Germany, Austria and Switzerland. "Many nursing graduates are understandably drawn towards areas such as ICU or OR nursing. These specialisms offer advanced technologies and the job satisfaction that comes from contributing to visible, often dramatic, improvements in patients' health. It's hard for long-term care to compete."

Training in step with technology

All six participants agree that better clinical communications and coordination can go a long way towards alleviating the delays and frustrations caused by too few nurses. Mary York, who practiced nursing at the prestigious Johns Hopkins Hospital before embarking on her career at Ascom in the U.S., emphasizes the importance of training for nurses and other clinicians.

"The days when tech companies could install a clinical communications system without close cooperation with nurses are long gone. We at Ascom are pioneers in this area—just look at how many RNs work here!—but we need to be constantly deepening and adapting our engagement with nurses. After all, our support for them needs to keep pace with our fast-moving technical advances."

"It's not only the technology that keeps moving—it's the staff"

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Clinical Consultant Jenny Arnesson concurs. Based at the Ascom office in Gothenburg, Sweden, Arneson works closely with hospitals and healthcare organizations across Europe.

"But it's not only the technology that keeps moving—it's the staff. Employee turnover is high in healthcare, so there's a need to constantly train new hires in how to get the most out of their technology. This is why E-learning is fundamental. It lets nurses receive training at times that suit them best."

As Tejs Povlsen of Ascom Denmark says, there's a difference between a solution and a piece of technology. "The former is built for nurses, and their input helps configure it to their specific needs. The latter can be an impressive piece of engineering… but might not be quite what nurses require."

Ensuring that nurses' input and opinions are fed into technical solutions is a top priority for Ascom Clinical Consultants. "We're a kind of 'digital advocate'," adds Povlsen. "We make sure the technology

Part of a series of articles celebrating Ascom's nurses, the global nursing community, and the WHO International Year of the Nurse and the Midwife.

Digital advocates for nurses

Technology is revolutionizing clinical communications and collaboration. Alarm notifications from medical devices can now go directly and discreetly to a nurse's phone. Alerts and patient requests can be automatically diverted from a busy nurse to the next available colleague. Clinical data in the form of voice, text, graphs, photos and video can be accessed, shared and updated by nurses throughout a hospital.

This all sounds wonderful. But as several of the roundtable participants point out, what's truly important is to ensure nurses get the technical tools they actually need and want—which is where Ascom clinical specialists play a key role as 'digital advocates'.

serves the nurse—not the other way around. And for it to work, we really push to get nurse involvement as early as possible in a project. As qualified nurses ourselves, we know the daily realities nurses face, and know where and how our solutions can make the most difference."

Sometimes it transpires that a technically modest solution is what works best, as long as it meets end-user needs. "That's so true," adds Arneson. "Yes, it can be great to have a solution with a dazzling array of technical features. But it's having the right features that makes life easier for nurses. Ironically, it is actually harder to deliver a 'limited' but precise solution rather than one loaded with unnecessary features."

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More of the same… but different
The COVID-19 crisis has thrust nurses and nursing into the public spotlight. In some countries, this has helped drive a surge of interest among young people in nursing as a career. The pandemic has also stimulated investment in public health infrastructure, and underlined the value of technology that enables and improves communication between frontline clinicians.

"I know from personal experience that our solutions really help reduce physical contacts when treating COVID-19 patients," says Arnesson, who voluntarily returned to ICU nursing as the pandemic raged in Sweden in the spring of 2020. Blankers reports something similar from the Slingeland Hospital in the Netherlands, where an Ascom solution helped clinicians receive and share patients' Early Warning Scores--heartrate, breathing frequency, oxygen saturation--without entering and leaving patient rooms and ICUs.
"This kind of 'digital visibility' is a key benefit of Ascom Digistat, for instance," adds York. "It's a suite of clinical software—about to be deployed in the U.S. for the first time—that pulls together clinical data from numerous patients and pushes it to mobile clinicians and/or to a fixed monitor, giving them a detailed overview of every patient under their care."

As the roundtable wound down, Kok reminded his colleagues that, as always, the human and the technical aspects of clinical communications have to work together. As an example, he tells of his twice-yearly visits to nursing colleges, where he informs students about the possibilities of today's technology.

"But just as important," he says," I teach them to be critical… to demand more from their ICT suppliers and departments, to demand and insist on solutions that make genuine improvements to their workflows, their work loads, and the quality of care they provide. In short, we want nurses to keep on challenging us with their challenges. Then it's up to us to keep on devising truly useful answers."

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