How will you respond to clinicians sounding the alarm on unsustainable care delivery models?

EY Global Voices in Health Care Study 2023

The better the question. The better the answer. The better the world works.
Global summary
More than 100 in-depth interviews were conducted with health executives and clinicians in Australia, Brazil, Canada, Colombia, England, Germany, Ireland, Japan, Norway, Sweden, and the United States between March and June 2023.

Methodology:
A 45- to 60-minute interview was conducted with health system executives and patient-facing clinicians, including physicians, nurses and allied health workers, between March and June 2023 to understand the challenges and opportunities for health systems facing critical shortages of health care workers. EY also analyzed government data and evaluated academic and news articles on the workforce shortages in the 11 countries involved in the study.
Executive summary

How will you respond to clinicians sounding the alarm on unsustainable care delivery models?

In the EY Global Voices in Health Care Study 2023, clinicians call for models allowing them to put patients first without sacrificing their own quality of life.

- Patient safety and lack of autonomy are top reasons cited by clinicians as to why they would leave medicine, according to EY interviews.

- Health systems should help ensure frontline clinicians gain actionable insights from the patient data they collect throughout the day, to improve outcomes.

- By advancing digitally enabled hybrid care models, health organizations can expand preventative care and prioritize time between clinician and patient to provide more autonomy.
Executive summary (cont'd)

Care delivery models of today rest on the idea that clinicians will continue to work as they have for generations – for long hours, often on call and unpaid for their documentation and for training new physicians and nurses. Meanwhile, health care workers have been raised on the idea that work-life balance is important. Often mission-driven, they want to see better outcomes and experience for their patients, and for themselves.

To better understand the drivers of health care workforce shortages, uncover leading practices and hear from frontline clinicians, EY teams conducted more than 100 in-depth interviews in 11 countries with health system executives and clinicians. The clinicians were health care workers who had daily responsibilities to care for patients, including physicians, nurses, nurse practitioners and allied health workers.

The clinicians interviewed for the EY Global Voices in Health Care Study 2023 identified in detail the top factors causing them to consider leaving the profession: lack of autonomy or control (cited in 42% of responses), burden (38%) and moral injury and concerns about patient safety (27%).
Burnout is the thing that encompasses everything. There is a combination of loss of accomplishment, a loss of gratification, a loss of control and just feeling like I don’t get the joy out of my work that I used to. I feel like it’s not going to get any better.

Physician, US

Unfortunately, in many cases, administrative activities have started to consume a significant part of a doctor’s day, sometimes even up to 50%. This approach of burdening doctors, who are already expensive resources, with extensive administrative duties is organizational madness. The system often takes advantage of doctors’ dedication to their work, adding more tasks until they reach their limits.

Physician, Germany

The medical workforce in the past was willing to do exceptional hours, long working hours, much more than standard 40-hour working weeks. The new generation of doctors is much more focused on work-life balance. So not only are there less doctors, the doctors that are there want to work less, so it’s a double-edged sword.

Health executive, Australia

Unless we build a system where less severe disease can be treated more cheaply via self-medication, hospitals cannot focus on patients who actually need treatments at hospitals.

Health executive, Japan
Executive summary (cont'd)

A disconnect between clinician and health system perspectives

As they were confronting a crush of extremely ill patients, financial challenges and skyrocketing labor costs, health system executives tended to focus on pay in their response to the shortages (39% cited this approach), making sure clinicians were practicing at the top of what their license enabled (33%), providing education pipeline initiatives (33%) and wellness benefits (22%).

Some clinicians said in interviews they appreciated the increased focus on mindfulness and mental health, but when asked how the health system needs to change in the future, the top changes cited were: more preventative care, better staffing ratios and better flexibility.

Clinicians in several countries shared stories of not being able to get the care they believed their patients needed, and then seeing them cycle through the health system ineffectively, without addressing the root cause of disease or preventing crisis.
Executive summary (cont'd)

Why are we doing this?

Looking to free up time for overwhelmed nurses during the pandemic, leaders at University Hospitals in Cleveland invited 50 frontline nurses and nurse managers for a brainstorming session. Peter Pronovost, Chief Quality and Transformation Officer for University Hospitals, said the group explored what work they could stop doing and what work technology could eliminate through automation. They also looked at tasks that could be outsourced, such as having an admission nurse who focuses only on admissions, working remotely. The last question they pursued was: “What work is sacred and needs to remain at the bedside in person?”

“We asked our nurses for policies where the burden exceeds the benefit. And then we looked at how many times it happens, how many minutes it takes ... We changed probably around 70 policies. But what we found is those policies are embedded in 2,000 order sets,” Dr. Pronovost said. Through this exercise, the health system was able to free up an estimated 30% of nurses’ time to focus on patients. The health system also is working with the Centers for Medicare and Medicaid Services in the US to reduce burdensome policies.

Similarly, the team found that nurses were spending 24% of their time hunting for supplies during their shift. The health system introduced an app that enabled nurses to search for the most common assets they use. “And it instantly says where the nearest one is. So, it’s huge that the time it took a nurse looking for supplies went from 32 minutes to 2.”
Executive summary (cont'd)

Digital transformation will play a huge role in solving the problem, but the clinician voice is critical

Health organizations can seize on digital transformation to clear the obstacles from clinicians’ days.

“Digital is seen as a cost center, not a value center,” said Rachel Dunscombe, CEO of OpenEHR, who has worked extensively in creating digital clinical programs for England’s National Health Service (NHS) and elsewhere. “We really need to reframe it as being the operating model that allows more productivity, while keeping our clinicians a lot happier in the work.”

In interviews with EY professionals, clinicians say they see value in some digital tools that have been introduced, especially in voice dictation software and tools that allow them to view images, scans or medical records remotely. However, they disliked siloed apps and platforms that require them to log in multiple times per patient and they asked for better surfacing of the information they need from the Electronic Health Record (EHR). Still wary and beaten down by EHRs that have them lost in click boxes, clinicians were more skeptical about the role of technology in changing the care delivery model than executives.
Executive summary (cont'd)

Digital transformation will play a huge role in solving the problem, but the clinician voice is critical (cont'd)

The costs of not pursuing digital strategies that will help attract and retain clinicians is high as well, as the price tag to replace a physician who leaves due to burnout is estimated at US$500,000 to US$1 million per doctor, once recruitment, sign-on bonuses, lost billings and onboarding costs are factored in.¹

Dunscombe says health systems need to familiarize clinicians with the technology and free them to create the experience that is right for them. Another challenge to unleashing the power of health data is “the lack of tooling for the clinicians to actually interrogate the data,” she said. “One of the most powerful things we can do is allow the clinicians to understand the population.”

None of the clinicians interviewed by EY teams said they had access to analytic insights on their patients. Clinicians even expressed frustration with swimming in too much data at times, not being able to find what they need. In fact, a recent report by The World Bank estimated that some countries use less than 5% of health care data to improve health.²

Executive summary (cont'd)

“There is too much information, but we don’t know how to analyze it effectively.

Physician, Colombia

“We do have access to lots of data. But right now, it’s a bit chaotic because they haven’t really optimized it yet.

Physician, Norway

“We have billions of health data points generated in private and public health practice, but none of it is being used to improve the patient experience, clinical outcomes, early diagnosis and disease prevention.

Health executive, Brazil
Executive summary (cont'd)

Health organizations must advance toward digitally enabled hybrid care models to address continuing workforce challenges

Newer models that seamlessly integrate remote and in-patient care can help relieve care demand, expand preventative care, and improve the patient and clinician experience. Data insights can help identify the appropriate time, site and mode of care for patients. More effective virtual triage options and virtual primary care can help reduce the burden, while smart remote patient monitoring devices and apps can enable exception-based interventions and help create more consistent touch points with patients.

Six key actions will help health executives move toward digitally enabled hybrid care models:

1. **Prioritize time between clinician and patient.** Health systems should build in more autonomy for the clinician to manage their patient panels and strengthen relationships with patients.

2. **Activate the data that clinicians are collecting throughout the day by pulling out insights about their patient population.** By equipping them with actionable insights, they can better improve outcomes and experience.

3. **Develop more precise and consumer-friendly communication strategies to help patients feel more seen and heard.** When patients are waiting for test results or appointments, anxiety can build. Communication strategies can help assuage those worries and keep them connected to the health organization in hybrid care models.
Executive summary (cont'd)

Health organizations must advance toward digitally enabled hybrid care models to address continuing workforce challenges (cont'd)

4. Educate the public about what quality care looks like and their role in it. Many may still cling to the idea that quality care occurs only in the hospital, through instant access to specialists. How can health organizations help the public understand what high-quality care in hybrid care models looks like? Clinicians also indicated more needs to be done to stop abuse of health care workers by patients and to build trust.

5. Collect real-time feedback from employees. Health organizations need a better understanding about what's working for employees in the moment so they can drop what's not working and remove burdensome policies or benefits that are not adding value for employees.

6. Focus talent strategies on supporting the move toward new digitally enabled care models. As health systems shift care to preventative models and toward the home, HR will need to be ready for the new roles that will be necessary to carry care through to the home, such as consumer health techs to connect home health devices. Health systems will also need to work with governments and education systems to enhance digital clinical worker skill sets and pipeline.
Patient safety and lack of autonomy are driving clinicians to sound the alarm on the need for new care delivery models

Care delivery models of today rest on the idea that clinicians will continue to work as they have for generations – long hours, often unpaid for charting and mentoring time. Care models must change for today’s clinicians – and patients.

Why I would leave

- **Lack of autonomy or control**: 42%
- **Burden**: 38%
- **Moral injury and concerns about patient safety**: 27%
- **Patient behavior and demands**: 23%
- **Long hours**: 19%
- **Pay**: 12%
- **Lack of career development**: 12%

Source: EY Knowledge analysis of interviews with 48 clinicians in spring 2023

EY interviews raise key questions for health systems:
- Are your workforce strategies addressing clinicians’ feelings that they can’t **practice medicine safely**?
- When you improve workflows to save time, are you **adding more patients** to clinicians’ workloads?
- Clinicians say they want **better insights about their patients**. Are your digital strategies moving toward that?
- Are you including **clinicians in the design** of digital solutions?
- Do your **triage strategies** properly guide patients to the right care site in a hybrid model that blends virtual and in-person care?
Health executives have been pursuing many traditional responses to the crisis, but more opportunity exists with automation and digital solutions.

Where health organizations turned in response to shortages:

- Pay: 39%
- Top of scope/new roles: 33%
- Education pipeline: 33%
- Wellness benefits: 22%
- Immigration: 18%
- Automation/technology: 18%
- Enhanced recruitment: 16%
- Career development programs: 16%

Source: EY Knowledge analysis of interviews with 56 health executives in spring 2023
What have health systems done to try to meet the workforce challenge?

Common themes and examples

1. Adding new roles to relieve burden
   Some health systems added the following roles:
   - Virtual nurses focused on admission/discharge
   - Patient support techs to get blankets, fill water
   - Dedicated clinical coaches to focus on new nurse support

2. Bringing clinicians to the table for solutions
   By soliciting input, health systems reduced burden by:
   - Having nurses identify outdated policies that add time
   - Reviewing why they ask patients certain questions
   - Reducing duplicative clicks for nurses

3. Introducing new digital solutions
   To free up clinician time and handle increased demand, some health systems tried:
   - Self-service kiosk in the ER to accelerate triage
   - Badge taps for log-ins to decrease time
   - Voice to text for documentation

4. Empowering patients to take more active role in their care
   Some health systems looked to patients to keep themselves healthier by:
   - Introducing digital front doors to help them manage interactions
   - Rolling out apps to help manage their conditions
   - Nudging patients via text to take action to improve health

Source: EY Knowledge analysis of interviews with 56 health executives in spring 2023
What have health systems done to try to meet the workforce challenge?

Common themes and examples, continued

<table>
<thead>
<tr>
<th>Expanding the worker pipeline</th>
<th>Relieving demand through enhanced care options</th>
<th>Clearing policy obstacles</th>
<th>Improving recruitment and retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>To expand the worker pool, health systems looked to:</td>
<td>As EDs were overwhelmed, some health systems pivoted to:</td>
<td>Health systems identified policies standing in the way, such as:</td>
<td>To attract and keep workers, health systems looked to:</td>
</tr>
<tr>
<td>• “Grow their own” by creating internal certification programs for existing employees</td>
<td>• Free virtual primary care for patients without access</td>
<td>• National workforce strategies that can pit regions against each other</td>
<td>• Over-recruiting nurses to make sure existing nurses could take time off</td>
</tr>
<tr>
<td>• Speeding up licensing for immigrated workers</td>
<td>• Virtual triage to route patients to best setting</td>
<td>• Overly restrictive licensing</td>
<td>• Selling the benefits of the entire community</td>
</tr>
<tr>
<td>• Increasing clinical spots for hard-to-fill roles</td>
<td>• Home monitoring to keep discharged patients from readmission</td>
<td>• Immigration rules preventing clinicians from working to scope</td>
<td>• Connecting with nursing students as early as possible to get them paid jobs</td>
</tr>
</tbody>
</table>

Source: EY Knowledge analysis of interviews with 56 health executives in spring 2023
Digital health tools: What the health workforce sees as the good, the bad and the ugly

Which digital tools helped you?
► Remote viewing of scans/images
► Wearables
► E-prescribing systems
► Artificial intelligence (AI)
► Voice dictation software
► iPads for the bedside
► Messaging between doctors and staff
► EHR

Which added more headache
► EHR
► Virtual platform
► Siloed apps and platforms
► EHR inbox

Which would you like to have
► More user-friendly approach toward all tech
► Patient education videos embedded in EHR
► Significantly reduced clicks
► Faster logins
► Reduced number of platforms/portals
► Prepopulated documents
► More patient input in EHR
► Dictation
► Better surfacing of info in the EHR (AI)

Source: EY Knowledge analysis of interviews with 48 clinicians in spring 2023
Clinicians and executives agree that more prevention is necessary, but clinicians are more skeptical about the role of technology.

**Clinicians’ top cited changes**

- More preventative care: 40%
- Improve staffing ratios: 30%
- Better flexibility/schedules: 26%
- Value/trust clinicians: 23%
- Improve pay: 21%
- Better career paths: 15%
- Better use of technology: 15%

**Executives’ top cited changes**

- Better use of technology: 47%
- Top of scope/new roles: 35%
- More preventative care: 27%
- Government action: 24%
- Patient at center: 12%
- Better hours/flexibility: 12%
- Increased wellness focus: 6%
- Improved career development: 4%

Source: EY Knowledge analysis of interviews with 48 clinicians and 56 executives in spring 2023
Consumers tell EY they most value access to care, but clinicians say their instant care demands contribute to the problem

**Consumers**

Only **37%** of respondents to EY Global Consumer Health Survey 2023 said their health system offered good, very good or excellent access to care.

**Clinicians**

“The expectation in society is increasing that everybody should have their health care instantly.”
**Norway**

“I’m pro data, but we’re looking at the wrong data. We’re not actually looking at true excellence of care. We’re looking at random numbers like how fast does it take to get seen. It’s irrelevant because they are not in an emergency and can wait to be seen ... It doesn’t make a difference if you wait 24 hours to be seen if you have an ingrown toenail.”
**Canada**

“Patients can easily go to large hospitals for their initial medical consultations. If this hurdle to go to a large hospital can be further increased, large hospitals could better focus on patients with more severe medical conditions (instead of patients with a cold or patients regularly taking the same medicine, etc.).”
**Japan**

**Health systems**

EY findings raise key questions for health executives:

► Can communication strategies with patients be improved to make them feel more seen?

► How can triage strategies help guide patients to the right place?

► Nearly three-quarters (73%) of EY consumer survey respondents say they are treated with empathy, courtesy and respect. What supports do physicians and nurses need to enhance the relationship with all patients?

► How are you educating patients that quality care does not just take place in a hospital?

Source: EY Global Consumer Health Survey, EY Knowledge analysis of interviews with 48 clinicians in spring 2023

43% of respondents said the responsibility for good health is shared with the medical provider. Thirteen percent put the onus on medical providers.
Much potential seen in virtual care to ease demand, but clinician and patient experience must be improved

Only three executives interviewed expressed skepticism about the potential of virtual and remote care to help meet patient demand in the future, because they did not see how it would reduce the demands on the workforce.

88% of clinicians interviewed saw potential in virtual and remote to improve care.

44% of respondents to EY Global Consumer Health Survey 2023 said they would consider virtual care, but in-person visits were still preferred. Consumers open to virtual for:
► Renew a prescription (67%)
► Discuss test results (61%)
► Save time (57%)

Only three executives interviewed expressed skepticism about the potential of virtual and remote care to help meet patient demand in the future, because they did not see how it would reduce the demands on the workforce.

But we have to figure out how to be able to work that into any provider’s day.

Source: EY Global Consumer Health Survey, EY Knowledge analysis of interviews with 48 clinicians and 56 executives in spring 2023
Health systems have yet to unleash the power of analytic insights to their clinical workforce

Clinicians expressed frustration with too much data at times, but not seeing the benefit.

"There is too much information, but we don’t know how to analyze it effectively.

Physician, Colombia"

"We do have access to lots of data. But right now it’s a bit of chaotic because they haven’t really optimized it yet.

Physician, Norway"

0 clinicians said they had access to analytic insights about their patient pool.

26% of health system executives said they were using data analytics insights to create patient care pathways.

30% of executives said they were using analytics for workforce planning and management.

EY research raises key questions for health systems:

- How can your health system provide data insights about specific patient populations to frontline clinicians to improve care and outcomes?
- What training and support do clinicians need to interpret data?

Source: EY Knowledge analysis of interviews with 48 clinicians and 56 executives in spring 2023
When physicians and nurses have tasks taken off their plate, they say it doesn’t lead to more time with their patients

85% of doctors saw opportunity to hand off tasks to other roles, such as assistants, nurses or clerks, both for transferring care tasks to other team members or reducing administrative burden.

... but

Only half of nurses saw potential to transfer tasks to others and were skeptical of being able to offload more.

What clinicians say about task shifting

“Administrative activities have started to consume a significant part of a doctor’s day, sometimes even up to 50%. This approach of burdening doctors, who are already expensive resources, with extensive administrative duties is organizational madness. The system often takes advantage of doctors’ dedication to their work, adding more tasks until they reach their limits.”

“Physician, Germany

“Physician, US

We already do a lot of that. And then, while it’s supposed to free up time for us to spend more time with one or two patients, it just ends up being you have all this extra time, so you can see more patients.”

Source: EY Knowledge analysis of interviews with 48 clinicians in spring 2023
Nursing crisis: Executives aim to attract more experience; new nurses want more support

64% of health system executives noted a lack of experienced nurses, and that new nurses were entering the field without the usual clinical experience (sometimes due to COVID-19).

74% of executives interviewed said they would consider allowing more senior nurses to serve as virtual coaches to train and support new nurses. In some countries the legal environment did not allow for this.

73% of health executives said they had or would consider bringing retired nurses back into the workforce in flexible ways. Laws in some countries did not permit this.

Source: EY Knowledge analysis of interviews with 56 executives in spring 2023
As health systems pursue strategies to better attract and retain clinicians, they must incorporate these key principles:

<table>
<thead>
<tr>
<th>Purposeful data collection</th>
<th>Digital designed for clinical care</th>
</tr>
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<tbody>
<tr>
<td>► Clinicians spend their day collecting data without seeing benefits.</td>
<td>► Digital tools designed with — and for — clinicians that takes away, not adds to their burden.</td>
</tr>
<tr>
<td>► They want analytic insights to improve care and experience.</td>
<td>► Digital that empowers patients in their own care.</td>
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<table>
<thead>
<tr>
<th>More time per patient</th>
<th>Modern expectations</th>
</tr>
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<tbody>
<tr>
<td>► Optimize workflows — not to add more patients to their load — but to add more time to engage and care for existing patients.</td>
<td>► A reset is needed of traditional models that rely on the sacrifice of clinicians, with endless shifts, charting on their own time, always on call.</td>
</tr>
<tr>
<td>► Enable more clinician autonomy in managing patients.</td>
<td>► Generations of workers have been raised with the idea that work-life balance is critical.</td>
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<table>
<thead>
<tr>
<th>Public campaigns to build trust</th>
<th>Relieve care demand burden</th>
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<tbody>
<tr>
<td>► Clinicians have been branded heroes and villains over the past few years. Many clinicians we interviewed had experienced abuse by patients.</td>
<td>► Virtual triage and virtual primary care can help route patients away from overwhelmed sites.</td>
</tr>
<tr>
<td>► Public education campaigns can rebuild trust, decrease abuse and boost the image of medicine.</td>
<td>► Expand incentives/remove barriers for general, family and primary care practitioners.</td>
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<table>
<thead>
<tr>
<th>Policies to clear way for new models</th>
<th>Flexible career paths</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Government and policymakers must remove unnecessary regulations that create burden.</td>
<td>► Clinicians seek both flexibility to achieve work-life balance and options to vary their career path.</td>
</tr>
<tr>
<td>► Health orgs must optimize policies for patient-clinician time.</td>
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</table>
Key priority arising from the EY Global Voices in Health Care Study 2023: Advancing toward digitally-enabled hybrid care models

Health organizations must embrace new care delivery models to address continuing workforce challenges. Hybrid care models seamlessly integrate remote and in-patient care to relieve care demand, expand preventative care and improve patient and clinician experiences.

6 key actions for health executives to move toward hybrid care models

1. **Prioritize autonomy and relationships**
   Give clinicians more autonomy to manage their patient panels and strengthen relationships with patients.

2. **Activate the data**
   Clinicians are collecting by giving them actionable insights about their patients.

3. **Develop communication strategies**
   That are more precise and consumer-friendly to help patients feel more seen and heard.

4. **Educate the public**
   About what quality care looks like and their role in it.

5. **Collect feedback**
   In real time from employees.

6. **Focus talent strategies**
   On supporting the move toward new digitally-enabled care models.
How to build the digital clinical workforce
The digital hybrid model of the future will require new roles and skills

Data analysis, data integration, interoperability, health cloud operation, AR/VR implementation and data security will be **top skills for the future health care workforce.**

<table>
<thead>
<tr>
<th>Companion robot technician</th>
<th>Nanomedical engineer</th>
<th>Gamification designer</th>
<th>Health care data integration expert</th>
<th>Virtual reality therapy designer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer home support tech</td>
<td>Lifestyle strategist</td>
<td>Virtual hospital manager</td>
<td>Algorithm trainer</td>
<td>Health tech trainers</td>
</tr>
<tr>
<td>Deep learning expert</td>
<td>Health data analysts</td>
<td>Health data security experts</td>
<td>Clinical technologist</td>
<td>Voice assistant health care content specialists</td>
</tr>
<tr>
<td>Augmented/virtual reality surgery planner</td>
<td>VR therapists</td>
<td>Brain neurostimulation specialist</td>
<td>Health care navigator</td>
<td>Precision medicine compounding pharmacist</td>
</tr>
<tr>
<td>AI chatbot communications designer</td>
<td>Data interoperability and platform specialist</td>
<td>Medical drone route designer</td>
<td>Health cloud architecture specialist</td>
<td>Robotic clinical documentation specialists</td>
</tr>
</tbody>
</table>

How to build the digital clinical workforce of the future

EY interview with

Rachel Dunscombe
Chief executive officer
OpenEHR

► Health systems need to **reframe investments in digital health** as being the operating model that allows more productivity while keeping clinicians a lot happier in the work.

► **On clinical digital leaders and data/AI workers**: “We've never had that as a profession. Great leaders won't step forward if it's not a clear journey that they're going on.”

► The sector can expand the pool of **digital clinical workers** by recruiting in other disciplines to create more data health scientists.

► Also need for digital health care workers to help consumers with the digital experience in their home environment.

► Involve clinicians in designing digital solutions and allow them to interrogate the data to better understand their population.

► **Generative AI (GenAI)** can be used to seek out problems in the population or identify patterns in patients to better stratify care.
How some health systems and universities are building a digital clinical workforce

**NHS Digital Academy**

- Started in 2018 with first offering, a postgraduate diploma in Digital Health Leadership.
- **Health Innovation Placement**: An NHS Digital Academy program that connects leaders with startups or small and medium enterprises to work on the development of a technological solution to a specific NHS problem. The program's goal is to improve participants' understanding of digital development to enable them to lead, improve and transform the health care system.
- **Chief Nursing Information Officer** masterclass series is designed to equip digital nurses and senior digital nurse leaders with skills, knowledge and tools.
- Digital fellowships and other networking opportunities offered.

**Technical training: LEADS at Johns Hopkins**

- **LEADS: Leadership in Analytics and Data Science**, a data stewardship leadership program that offers weekly lectures and workshops on health care data compilation, analysis and utilization.
- Also, Johns Hopkins hosts the Malone Center for Engineering in Healthcare, which brings together engineers, clinicians and care providers, using data analytics, emerging technologies and systems engineering principles to accelerate innovation in health care.

Country highlights

Canada findings
US findings
Colombia findings
Brazil findings
Australia findings
Japan findings
Germany findings
Nordics findings
Ireland findings
UK findings
Canada findings
Canada: What we heard from clinicians and executives

Drivers of the shortages

- Workers have opportunities in other industries, health care is exhausting work and competition is fierce.
- Clinicians cite burnout, moral injury and concerns about patient safety.
- Specialized clinicians are in high demand.
- Uneven geographic distribution of workforce, challenges of attracting and retaining in rural areas.
- Interviewees want to see policymakers change approaches that amplify competition between provinces and add to work burden.

Meet John*

Registered nurse with 14 years of experience

Why have you considered leaving medicine?

John: All of a sudden, we became only focused on metrics and true care excellence wasn’t a priority.

It really erodes your moral beliefs ... when you are putting someone not in an emergency ahead of an emergency because they’re going to ding our funding because (the non-emergent patient) is out of the window to be seen.

I’m pro data, but we’re looking at the wrong data. We’re not actually looking at true excellence of care. We’re looking at random numbers like how fast does it take to get seen. It’s irrelevant because they are not in an emergency and can wait to be seen ... It doesn’t make a difference if you wait 24 hours to be seen if you have an ingrown toenail.

*Names have been changed
### Canada by the numbers: State of workforce pipeline signals continued woes

| **44,000** | **100,000+** | **1 in 5** |
| Expected physician shortage by 2028 | Nurses needed by 2030 | Canadians don’t have a family physician |

| **47%** | **Tens of thousands apply for 2,800 med school openings** | **Only 5.5% accepted** |
| of Canadian respondents rated access to care as below average | | |

| **93%** | **67%** | **1 in 4** |
| Nurses experienced verbal abuse, physical assault, bullying and aggression, or sexual harassment in the past year. | Of nurse respondents worked at least three of the last five shifts without full regular core staff. | Nurses rate patient safety as poor or failing. |

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**Sources:**

Canada: Here's how some health systems responded

Relieve demand through free virtual primary care and mobile clinics
Nova Scotia Health Authority offers free virtual consultation for anyone who doesn't have a family physician.
Mobile clinics are deployed to provide care where pockets of either increased demand or staffing issues emerge as a challenge. A mobile bus can be deployed to see the increased number of patients.

Improve patient experience through supports for patients waiting in emergency
One Canadian health system introduced new roles in the emergency departments to make sure that if patients need support while they're waiting, they have it.
The roles are both clinical and nonclinical in nature, with nonclinical staff helping to answer questions, getting water or a blanket.

Support novice nurses by bringing in retirees as clinical coaches
One health system created a clinical coach role, reaching out to retired nurses to see if they were interested in knowledge translation and helping nurture critical thinking skills in new nurses.
The system turned to this dedicated role to bring in more experience to help the high number of novice nurses on the floor.

Sources: Nova Scotia Health, “Virtual Care NS,” accessed October 6, 2023; EY interviews.
Case study: Canada health system offers free virtual care for citizens without a family physician

The challenge
A shortage of family physicians means one in five Canadians lack a family physician. Those without primary care were flooding hospitals and emergency rooms, overburdening the system.

Nova Scotia Health Authority piloted VirtualCareNS in May 2021, starting with mental health, prescription renewals, skin problems, minor injuries and joint pain. In August 2022, after finding success, the health system expanded the service to anyone on the wait list for a family doctor. Citizens can sign up for a free virtual visit with a physician or nurse practitioner to tend to their needs.

The system also used it as an opportunity to offer more flexibility to clinicians who need options. “There are many of my colleagues, for instance, who have back injuries or they’re just not able to provide that care delivery,” said Gail Tomblin Murphy, vice-president of research and chief nurse executive with Nova Scotia Health, told CBC News. “But what I can do, I would be a really good nurse practitioner, for instance, and delivering [virtual] primary care."

The province pays a monthly licensing fee to the platform Maple to host VirtualCareNS and VirtualEmergencyNS, targeted to people visiting the emergency department with concerns that can be treated virtually.

The health system has also rolled out mobile clinics that can travel around to provide care where they may see pockets of either increased demand or staffing issues.

Canada: voice of the health executive

“There’s a narrative about people’s dissatisfaction with the health care industry, that then translates into dissatisfaction with the staff themselves, which I think really discourages people from wanting to work in health care.

“We don’t have the right people with the right skill set in leadership roles — 40% of our leaders are new since COVID-19, and we didn’t have a lot of development during COVID-19.

“We need to really understand what the workforce needs and wants and what changes they want to make. We don’t have a good way of gathering that data.

Source: EY interviews
Canada: voice of the clinician

"Lot of issues with computer systems. It takes five minutes to log in to a system. Nurses’ minutes are important."

"Just reduce the burden. It should be when you’re done your shift, you’re done. Two cell phones, a pager, three laptops. Systems should provide better work-life balance."

Source: EY interviews
US findings
US: What frontline clinicians and health executives told us

Drivers of the shortages

- Wage gap between traveling and non-traveling nurses
- Clinicians cite burnout, and concerns about patient safety and moral injury (from being put in situations where they feel they are doing harm)
- Ageing workforce. Early retirements due to work pressures. Experienced nurses are opting for nonclinical roles
- Health care staff is overloaded with documentation work for reasons that don’t make sense to clinicians
- EMR system inefficiencies: Eight clicks for a routine script refill; 18 pages for an ED doc to scroll through to find something pertinent
- Low or no payment for training new clinicians
- Lack of incentives for primary and preventive care

Meet Karen*

Physician with 30 years of experience

Why have you considered leaving medicine?

Karen: Burnout is the thing that would encompass everything. There is some combination of a loss of accomplishment, a loss of gratification, a loss of control and just feeling like I don’t get the joy out of my work that I used to and feeling like it’s not going to get any better.

Meet Elyse*

Physician with 10 years of experience

What could make you stay?

Elyse: I need to be in a working environment that is supportive in a real tangible way. And I would have to continue to be able to have good work-life balance. If those things were in place, the only thing that would have to happen is not any worsening but hopefully improvement of the national political landscape of my patients being treated well. And what I mean by that is some of the frustrating things as a physician are the kind of moral injury for example, my patients not getting approval for a medication or treatment that I know is beneficial to them, but insurance not covering it. Frustrating.

*Names have been changed

Source: EY Knowledge analysis of interviews
US by the numbers: State of workforce pipeline signals continued woes

124,000
Expected physician shortage by 2034

90,000+
Qualified nurse applications rejected in 2021 due to lack of training spots

52
Median age of RNs, 2021, meaning 1/3 could be retirement age in 10 to 15 years

32%
of US respondents rated access to care as below average

>600,000
Nurses intend to leave by 2027 due to stress, burnout and retirement

Nurse.org’s 2022 State of Nursing Survey revealed:

81%
Of nurses feel that they don't have adequate backup and are expected to do more than can be done in one shift

61%
Of nurses feel unappreciated at their job

Sources: EY Global Consumer Health Survey; Association of American Medical Colleges, “AAMC supports resident physician shortage reduction act of 2023,” March 29, 2023; American Association of Colleges of Nursing, “Fact sheet: Nursing shortage,” October 2022; Nurse.org, “This is the state of nursing,” 2022.
Case study: US health system brainstormed with staff to shed unnecessary, time-consuming processes

The challenge
Most nurses could identify procedures that seem duplicative, or unnecessary, but University Hospitals in Cleveland dialed in to identify exactly what they could cut to free up time and reduce burden.

How a closer look at their policies allowed one health system to prioritize nurses' time with patients

Looking to free up time for overwhelmed nurses during the pandemic, leaders at University Hospitals in Cleveland invited 50 frontline nurses and nurse managers for a brainstorming session. Peter Pronovost, Chief Quality and Transformation Officer for University Hospitals, said the group explored what work they could stop doing and what work technology could eliminate through automation. They also looked at tasks that could be outsourced, such as having an admission nurse who focuses only on admissions, working remotely. The last question they pursued was: “What work is sacred and needs to remain at the bedside in person?”

“We asked our nurses for policies where the burden exceeds the benefit. And then we looked at how many times it happens, how many minutes it takes ... We changed probably around 70 policies. But what we found is those policies are embedded in 2,000 order sets,” Dr. Pronovost said. Through this exercise, the health system was able to free up an estimated 30% of nurses’ time to focus on patients. The health system also is working with the Centers for Medicare and Medicaid Services in the US to reduce burdensome policies.

Similarly, the team found that nurses were spending 24% of their time hunting for supplies during their shift. The health system introduced an app that enabled nurses to search for the most common assets they use. “And it instantly says where the nearest one is, So it's huge that the time it took a nurse looking for supplies went from 32 minutes to two.”

Source: EY interview
Case study: US health system recognizes need for ‘little things’ like ice water and blankets to improve patient experience, reduce nurse burden

The challenge: Overburdened nurses want to care for patients, but sometimes their workloads inhibit their ability to do so. But one US health system found that being cold, or thirsty, are small things that affect patient and family experience.

Recognizing the pressure on their nursing staff, one US health system developed a new, nonclinical role for a patient and family support technician.

The goal was that nurses could focus on nursing tasks, but that key patient experience issues could be handled – fetching blankets, ice water or helping families – all of which fed into the quality of their experience. The aim is that it also provides an opportunity for the health system to continue building a more robust pipeline of people who might eventually be interested in a clinical or nursing career. The new role acts as an extra set of hands to help nurses and patient care techs with their workload.

“The feedback from clinical staff on the model has been positive because many of them were drawn to their career because of a desire to provide clinical patient care. And so anytime that they’re being forced to do activities beyond that is generally not high value from their perspective,” an executive with the health system told EY.

Early models suggest that it’s going to be relatively neutral from a financial perspective because today the system is forced to supplement its workforce with nurses or patient care techs who are working overtime. “And so, I think this will give us a lower cost model to meet some of those needs, as well as to better align specific skills and activities with the folks who are best suited to meet them,” the executive said.

The health system also found that over time, their admission assessment had grown out of control, often from a one-off or rare safety or risk issue. In-house clinical experts said they would never ask every patient those questions. “When we looked at that list, and really like narrowed it down to what was actually applicable, we were able to eliminate two-thirds of the questions to reduce a 30-minute process to 10 minutes,” the executive added.

Source: EY interview
US: voice of the health executive

“Our EMR is very poorly designed to enable communication and work-sharing. There’s a lot of things that we make people do that are duplicative and redundant and, frankly dumb.”

“It worries me that everybody’s focused on the financial environment and optimizing, making sure that they don’t go under. I get it. I don’t see that same amount of attention being paid to making sure our quality outcomes and safety outcomes are also being buoyed up.”

“I’m worried about primary care doctors. I’m genuinely worried that we’re going to run out of them at some point, because their jobs are just brutal. So I think what you’ve got to do, and this goes back to the whole burnout thing, right? We’ve got to figure out models where our clinicians feel like the job is doable, and they don’t feel like they’re just burning out along the way.”

Source: EY interviews
US: voice of the clinician

“This combination of less staff but see more patients, and it doesn’t ultimately matter if it’s safe or not. So my particular situation was not safe ... everything about it was wrong.

The moral injury in some of the care these days, in particular, during COVID-19 when we weren’t meeting standards of care, and were continuing on ... At some point, it feels like you’re just part of a system that is causing harm — although there might not be another better option. And so I think recognizing the value of investing in better patient care to avoid your clinicians’ moral harm is important.

It’s a double-edged sword. It’s nice to be able to have access to all the information about a patient that’s ever been recorded, but it’s also incredibly difficult to pull the information you want in a timely way.

It’s the lack of autonomy, lack of respect for our judgment that has really driven a lot of people away ... And that you’re not valued and not reimbursed for the work that you do and being placed in unsafe situations as a result.

Source: EY interviews
Colombia findings
Colombia: What we heard from clinicians and executives

Drivers of the shortages

- **The overreliance on specialists** when nurses or general practitioners could handle an issue
- **A lack of spots in specialty med school programs** makes it difficult for clinicians to specialize
- **Inverted population pyramid:** Wider at the bottom and younger at the top is leading to an increased workforce demand
- **Challenges in workforce retention**

Meet Luis*

Physician with 17 years of experience in clinical practice and 12 years dedicated to administration

What are the top factors driving worker shortages in your area?

**Luis:** Accessing specialized and super-specialized training programs is very challenging in Colombia. The number of available spots for specialized programs, specifically in oncology, is very limited in the country. Additionally, both specialization and super-specialization are extremely costly.

In my personal case, I wanted to become an anesthesiologist. I applied five times, made it to the interview stage four times, but didn’t pass the interview in any of them, so I couldn’t access the specialization.

The overall remuneration for entry-level and mid-level positions does not meet the expectations of all health care professionals, unlike those in specialized and subspecialized roles.

*Names have been changed

Source: EY Knowledge analysis of interviews
Colombia by the numbers: State of workforce pipeline signals continued woes

1.3 nurses per 1,000 population
(while the OECD average is ~9 nurses per 1,000)

2.2 physicians per 1,000 population
(while the OECD average is 3.6 per 1,000)

Increased attacks in 2021 from 2020 on health care workers, facilities and vehicles, as reported by national health care board.

Colombia: Here’s how some health systems responded

Proactive, data-informed communications with patients

One health organization combined social variables with clinical conditions data to understand factors such as whether a caregiver was present or what a patient’s living situations was.

The information allowed the staff to design communication strategies for “clusters” of patients to nudge them via WhatsApp about certain behaviors, such as not leaving their homes due to pollution in the area on a particular day.

Patient empowerment

“We empower the patient to perform their therapies and enable efficient monitoring without the need for constant video calls. It involves giving the patient a commitment and responsibility based on a strategy that incorporates certain habits into their daily life. That’s what we do so we don’t need the specialist to see all the patients.”

Health executive

Source: EY interviews
Colombia: voice of the health executive

“The technological advancements in medicine are among the strongest in the field of artificial intelligence, precisely in response to the shortage of personnel. There’s no turning back; companies that are not focused on solving patient problems and incorporating technology into therapy will not be able to keep up.

We believe that the pandemic confirmed that patients can be seen remotely, but it doesn’t address the capacity problem.

When technology is implemented, people resist a little in doing things as they were before. Corporate culture is challenging when it comes to new technologies.

Source: EY interviews
Colombia: voice of the clinician

“Currently, a doctor cannot treat a problem with the arm, for example, without referring the patient to an orthopedic specialist for the arm or forearm. Therefore, we also need to consider why certain tasks performed by doctors here are carried out by head nurses in other countries.

“We have internal programs to help patients quit smoking or undergo rehabilitation, but they are primarily aimed at patients who already have emphysema or have experienced lung damage. It becomes more of a corrective approach, which does provide us with work, but it is not ideal.

“What’s important is to have patient control, not just frequency of visualization. Today, technology allows us to manage many patients without the need for constant visual interaction.

Source: EY interviews
Brazil findings
Brazil: What we heard from clinicians and executives

Drivers of the shortages

- Resistance in adoption of technology
- Uncompetitive salaries
- Lack of capital investment in health care
- Challenges in workforce retention
- Increased cases of burnout, depression among clinical staff, including doctors

Meet Antonio*

Physician with 11 years of experience in ICU and 12 years in management, currently serving as Director

What are the top factors driving worker shortages in your area?

Antonio: I understand that the work in the hospital is a unique psychological overload, one of the most difficult professions. It has some relevant aspects that are very difficult, such as the psychological aspect.

The hospital operation is totally chaotic, it is not a production line, it has no well-defined beginning and end, making it complex, totally variable and seasonal. Rhythm is not constant and random, basically made of people, so it is subject to de-standardization. The working hours are hard, there is work during the holiday and on the weekend. It has a huge demand on the registration of everything that is done, for legal and financial reasons, and it is extremely exhausting.

Now that we have the millennials, who are more pragmatic and think much more about career and with the pandemic has shown that quality of life is very important, creating a very great pressure. In Brazil we have a unique difficulty, which is the wage loss.

*Names have been changed

Source: EY Knowledge analysis of interviews
Brazil by the numbers: State of workforce pipeline signals continued woes

1.6 Nurses
Per 1,000 population in 2021, while the average was 9.64

2.2 Physicians
Per 1,000 population in 2021, while the average was 3.93

15,000 doctors
To be recruited through new government investment

35%
Nurses showed symptoms of mental health burden

29%
Physicians showed symptoms of mental health burden

83%
Health care workers reported being dissatisfied with their workplace measures to protect their mental health (2021 market survey)

37%
Health care workers screened positive for indicators of high emotional exhaustion (2021 market survey)

Brazil: Here’s how some health systems responded

Promote wellness through decompression areas

The creation of decompression areas within the hospital provided environments with comfortable armchairs, soft lighting and access to other relaxing activities.

The system also trained mental health champions as another strategy that enables them to identify signs of burnout and other mental health problems in employees.

Shift care out of the hospital

Some health systems have migrated to dehospitalization teams to focus on moving more care to the home. Over time, a change in the distribution of beds is expected, with a reduction in the number of ICU beds and a lower use of the emergency room.

Source: EY interviews
Brazil: voice of the health executive

“There is a lack of leadership in the health care sector, which leads to a lower sense of belonging and greater stress. The main competency that is lacking for leaders in the sector is legitimacy, that is, speaking what one believes, doing what one says, understanding their limitations and seeking resources to complement these limitations. What you see is that people say things that are different from what they practice – some out of fear and some out of lack of knowledge.”

“We have billions of health data points generated in private and public health practice, but none of it is being used to improve the patient experience, clinical outcomes, early diagnosis and disease prevention.”

“The health crisis is already occurring, but the path of technological incorporation as a solution has not yet been fully seen. Leaders still do not recognize this need, although the implementation of technology in health care is more complex than in other sectors, such as banking. This broader and more strategic vision is fundamental to promote the digital transformation in health care, allowing a greater homogenization of medical work through technology and AI.”

Source: EY interviews
Brazil: voice of the clinician

“Technology is the main solution, automation and innovation...The current academy is not ready to train the current professionals and needs to improve the technical base of the professionals, soft and hard skills.

“The pandemic has come to teach us that not everything should need to be face-to-face. Today when you have an elderly patient it helps a lot, for example, people with reduced mobility ... in addition to reducing the burden of these professionals in the face-to-face model.

Source: EY interviews
Australia findings
Australia: What we heard from frontline clinicians and executives

Drivers of the shortages

- **Uneven geographic distribution** of workforce: Difficulty attracting workforce to rural areas
- **Lack of mental care and aged care** workforce: Citizens are increasingly older and sicker with comorbidities
- **Long working hours** are not acceptable to newer generation of workforce
- Incentives to specialize
- **Inadequate funding** for primary care

Meet Nancy*

Clinical neuropsychologist in private practice

What are the top factors driving worker shortages in your area?

Nancy: They're coming into a clinical psychologist, when they could perhaps see a community nurse or a mental health nurse and that's efficient, and so you're saving that higher resource for a higher acuity patient. So, I think that there's definitely scope there.

There is a lot of pressure on acute settings. If there could be a more systematic level change and shift to move patients out of acute and subacute beds into the community, and have that patient flow moving a little bit more effectively, I do think that would have a greater impact on the workforce, because sometimes we're seeing patients that have countless comorbidities; they are staying in the same hospital bed for up to a year, two years because we can't find the space for them.

Source: EY Knowledge analysis of interviews

*Names have been changed
Australia: Demographic shifts will continue to burden the health care system

123,000
Expected shortfall of nurses by 2030

10,600
Expected shortfall of general practitioners by 2031

1 in 5
Australians have multiple chronic conditions

72%
Of Australian respondents said hospital at home will be an alternative to inpatient care in 10 years

32%
Of doctors in Australia are foreign trained

54%
Expected increase in population >65 years by 2041. Population living with dementia is expected to more than double from 2023 to 2058.

58%
General practitioners (GPs) reported mental exhaustion and burnout as one of their top challenges.

Australia: Here’s how some health systems responded

**Self-triage kiosk to reduce burden on ER nurses**

One health system is piloting an automated self-triage system where patients enter all the details about their presenting complaints. The triage nurse then views the summary and assigns priority.

The approach reduces the burden on the workforce and improves patient safety by reducing the wait time for triaging.

**Over-recruiting so that people can take time off**

By oversupplying a newly established health system, leaders aimed to have additional people in the system so that health care workers actually could take their time off. The result was a reversal of fatigue stats.

**Blocking off time for wellness and education**

One health system introduced wellbeing days for senior managers once a quarter to help them complete homelife tasks outside of work.

Another gives junior doctors protected teaching time, establishing the role of director of postgraduate medical education, who focuses on this. The organization also employed medical assistants who are not doctors yet but help with administrative tasks to reduce burden.

Source: EY Knowledge analysis of interviews
Australia: voice of the health executive

“The medical workforce in the past was willing to do exceptional hours, long working hours, much more than the standard 40-hour workweek. The new generation of doctors is more focused on work-life balance. So not only are there less doctors, but the doctors that are there want to work less, so it’s a double-edged sword.”

“We spend AUD100,000 per month at least, on recruitment agencies for international recruitment.”

“We have a growing HIH and palliative care service in the home. We will continue to focus on health care as not a bed-based service. Private providers have tried to negotiate with insurers to create HIH as an option but have met a brick wall.”

Source: EY interviews
Australia: voice of the clinician

"My mother got unwell whilst I was practicing in my psychiatry year and she lived in a different state, so I had to ask for some time to take some carer’s leave. I said I’m only going to ask a couple of weekends ... And they simply just said no.

"There is a lot of pressure on acute settings. If there could be a more systematic level change to move patients out of acute and subacute beds into the community and have that patient flow moving a little bit more effectively, then I think that would have a greater impact on the workforce, because sometimes we’re seeing the patients having countless comorbidities and they are staying in the same hospital bed for years because we can’t find the end in space for them.

"Junior medical officer spends much of their entire time on ward rounds, typing notes and then cleaning up the notes and then ordering certain investigations based on those notes.

Source: EY interviews
Japan findings
Japan: what we heard from health executives and clinicians

Drivers of the shortages

► Registered nurses leave practice as it is challenging to manage both family responsibilities and the medical work environment.
► Legal regulations hinder the sharing of tasks even for common diseases and at-home treatments.
► Current reimbursement system (per patient) is outdated.
► People are reluctant to perform tasks that are not in their job description.
► Cumbersome log-in into EHRs.
► Patients are not adapting to virtual care models.

Meet Hiroshi*

Physician of a public university hospital

Why have you considered leaving your profession?

Hiroshi: The working hours were tough. Did not help that it was a university hospital. Pay was not great, and we had long working hours. Also had to do a lot of nonclinical support work. For example, helping with lectures, marking papers, training medical students (undergraduates), clinical research support.

In general, the unequal geographical distribution of health care workers is a bigger issue than the volume of health care worker shortages. Shortages are seen because the medical environment makes it more difficult for female doctors to work, so they quit. In (this) prefecture, there is no health care worker shortage ... but once you drive away two hours, there is a doctor shortage. And if you drive another hour further, it would be severely lacking in medical resources.

*Names have been changed

Source: EY Knowledge analysis of interviews
Japan: Demographic shifts will continue to burden the health care system

- **270,000**
  - Expected shortfall of nurses by 2025

- **960,000**
  - Expected shortage of medical and welfare service workers by 2040

- **38%**
  - Population is expected to be >65 years by 2060.

- **33.5%**
  - Health care workers face burnout
  - (2021 report)

- **2.7 doctors**
  - Per 1,000 population in 2020

- **10%**
  - New graduate nurses quit their jobs within a year of employment in the year 2021.

Sources:
- The Japan Times, "Japan could face shortage of 270,000 nursing staff by 2025," October 22, 2019;
- Nikkei Asia, "Japan projects shortage of nearly 1m medical workers by 2040," July 26, 2022;
- The Global Economy, "Japan: Doctors per 1,000 people," accessed October 6, 2023;
- Japan News, "Record 10% of new nurses in Japan quit within 1 year," April 20, 2023;
Japan: Here's how some health systems responded

**Retired nurses used to plug gaps**

While the retirement age is 60, one hospital rehired retired nurses to work up until 70 years old. Once they are past 70, the hospital places them in patient caregiving roles and less burdensome jobs such as monitoring blood pressure.

Source: EY Knowledge analysis of interviews
Japan: voice of the health executive

Unless we build a system where less severe diseases can be treated more cheaply via self-medication, hospitals cannot focus on patients who actually need treatments at hospitals.

Unless the mechanism and responsibilities are clearly explained to and understood by the patients, doctors would be reluctant for remote monitoring and virtual care. Doctors fear the case if a patient believes that they are not being treated sufficiently/are misdiagnosed, they sue the doctor.

If we consider both quality and skills, we want doctors who have skills beyond just having a medical license, so we do not seek any relaxation of the licensing standards. Relaxing requirements would only lead to a decrease in quality and hence there should be no need for any changes (including IT) if the quality may go down.

In the long term, the number of patients will decrease. Since a lot of the care would shift toward at-home care and preventative medicine, there would be less need for a hospital per se.

Source: EY interviews
Japan: voice of the clinician

“Having clerical staff conduct all the paperwork is still only found at the better hospitals. Since doctors need to fill in the details for insurance, it would be better to have clerks who can be knowledgeable enough to also take this role (not about qualifications but knowledge). Across Japan, implementation of such clerical staff is still not high, so by task-sharing such medical admin work, I think that it would help reduce doctor’s burden.

While doctors would not be fully replaced, AI can already help in AI-assisted diagnosis for CT scans, ultrasound scans and cancers in endoscopy, etc.

The top digital tool we would like to see is the sharing of EHRs between medical institutions, with IT security being a hindrance for this. If EHRs can be shared online across all hospitals in Japan, this would be extremely helpful.

Source: EY interviews
Germany findings
Germany: what we heard from health executives and clinicians

Drivers of the shortages

- Retirement of baby boomers in Germany-Austria-Switzerland region
- Difficult to attract workforce in rural areas
- Virtual care and RPM are poorly reimbursed
- Unscheduled duty hours
- Nursing educators are required to have dual qualifications
- Shift of certain care aspects to other settings

Meet Mark*
Cardiac surgeon in a public hospital

What are the top factors driving worker shortages in your area?

Mark: The hierarchies in the medical field can sometimes make the job less enjoyable, and I have experienced clashes over the years. There were moments when I questioned why I put myself through this and sought coaching for two years while continuing to work just to cope with the difficulties.

To retain talented and high-performing individuals, it’s crucial to offer them the opportunity to have a say in shaping the direction of affairs. This sense of autonomy and independence is essential for the growth and motivation of young professionals. While some clinics might be exploring more open and flexible systems, there is still progress to be made in empowering medical professionals and fostering a collaborative environment that encourages innovation and progress.

*Names have been changed

Source: EY Knowledge analysis of interviews
Germany: Health worker shortages will continue to burden the health care system

~300,000
Expected shortfall of nurses by 2033

45%
of medical doctors are older than 55 years

11,000
Family doctor positions are expected to be unfilled by 2035

52%
of respondents in Germany said access to care was good, very good or excellent

Germany: Here’s how some health systems responded

Creating telemedicine centers
One health system responded by establishing its own telemedicine center, also known as TMZ, implementing the approach for cardiology and radiology. The service provides 24-hour radiological expertise for the entire group, enabling remote interpretation of medical images. Dermatology may be added soon, and leaders plan to add capabilities for home monitoring.

Digital self-help tools for patients
In the field of psychiatry, a health system introduced a program to provide psychiatric patients with a combination of digital solutions and self-help tools at home, avoiding the need for inpatient treatment.

Source: EY Knowledge analysis of interviews
Germany: voice of the health executive

“Good leadership, creating a sense of security and effective communication are crucial for retaining employees.

“It is important to acknowledge that the health care industry, including the nursing profession, has been traditionally conservative in adopting new technologies and practices. While the potential benefits of digital tools and automation are clear, it may take time for these ideas to gain widespread acceptance and implementation.

“Implementing automation and digital tools to reduce clinician burden has been a mixed experience. One notable success is the implementation of unit-dose care, which has effectively freed up manpower and improved patient care. However, there are still challenges in fully automating certain processes, such as order entry and streamlining transportation logistics, where algorithms are not yet fully in place.

Source: EY interviews
Germany: voice of the clinician

While the health system has attempted to retain clinical staff through recruitment of foreign nurses, the lack of proper integration and support may have hindered the success of these efforts. It is crucial to adopt a more comprehensive approach that considers the entire journey of the recruited nurses, from recruitment to assimilation, to achieve more sustainable outcomes.

The system of having a single person in charge for an extended period, up to 25 years, who represents the institution externally and within the administration, is problematic. This outdated system limits opportunities for fresh perspectives to emerge from within the organization.

The successful implementation of digital tools and technology in health care relies heavily on the support and actions of legislators. Adequate funding and a clear roadmap for standardization are crucial to foster effective integration and interoperability among different systems.

Unfortunately, in many cases, administrative activities have started to consume a significant part of a doctor’s day, sometimes even up to 50%. This approach of burdening doctors, who are already expensive resources, with extensive administrative duties is organizational madness.

Source: EY interviews
Nordics findings
Nordics: what we heard from health executives and clinicians

Drivers of the shortages

- Shortages of senior staff to guide newer staff
- Lack of medical professors in the medical schools
- Long log-in times into the computer systems. Takes ~1 hour per day
- Too many clicks in an EHR
- Excessive administrative burden and documentation
- Less focus on preventive care

Meet Ingrid*

Physician in a public hospital

Have you considered leaving the medical profession?

Ingrid: Absolutely. Yes, it was several factors. One factor is that you have quite little autonomy in your day-to-day work.

The agenda for your days is quite fixed in a way. You have little control. And there is high volume and a lot of work, long hours and big responsibilities. And sometimes you feel like you've been running around for 17 hours, and you still haven't done your job.

*Names have been changed

Source: EY Knowledge analysis of interviews
Nordics: by the numbers

18.9
Nurses per 1,000 population in Finland, highest for OECD countries

13,600+
Nurses in Sweden working outside of health care

6 in 10
Doctors in Sweden have considered leaving the profession

27%
Of sick leave incidents among licensed nurses were found to be related to high physical workload in Norway (2022 survey on ~1,300 nurses)

14%
Nurses left the Danish health service in 2022 (~4,600 out of 35,000) (June 2023 report)

42%
Of doctors in Norway are foreign trained

6.6%
Of nurses in Norway are foreign trained

Nordics: Here's how some health systems responded

- Creation of a Competence Development Center that will develop certifications where there are no trainings today. The health system works with university hospitals around the globe to capture best-case examples.

- Using Tableau to understand what caring for patients in different groups should look like. Teams can analyze patient flows for different categories and track metrics to continually optimize flow.

- Piloted antibiotic treatment at home. By moving treatment from the hospital, through various follow-ups via digital solutions, and by assigning the patient concrete equipment, it means patients can be at home or at work while they are receiving treatment.

- Piloted initiative for patients to carry out check-in and payment themselves. This is an example of removing administrative work so that the patients perform tasks themselves.

Source: EY Knowledge analysis of interviews
Nordics: voice of the health executive

“We have no fewer employees today than we did a few years ago. The lack of resources is due to working methods, increased administrative burden, increased documentation.

“It’s not just focusing on remote patient monitoring. If we don’t change our health care system, it’s just that we have more data.

“We need to make decisions that last longer than one parliamentary term.

“So nowadays, there are a lot of people who are looking for care, that maybe they don’t need care. So how can we use the patient’s data to judge if the patient really needs care or the patient can take care of themselves? ... And that’s how can we look for a situation that patients can do much more themselves. How can we empower patients?

“You need to include the needs of health care professionals better and think more holistically. For example, a new scheduling tool was purchased, but some automated functions were discarded to make it cheaper. However, this leads to clinicians having to spend much more time using the tool, which may not be cheaper in the end.

Source: EY interviews
Nordics: voice of the clinician

“You have quite little autonomy in your day-to-day worklife. I’d like shorter working hours; I do not like 17-hour shifts.”

“We do have access to lots of data. But right now, it’s a bit chaotic because they haven’t really optimized it yet.”

“It’s difficult with data because information is good, but then you have suddenly too much information, and then the important information drowns in the overload.”
Ireland findings
Ireland: what we heard

Drivers of the shortages

- The health care system is not realizing the benefit of using virtual care and RPM to reduce the burden on the system
- No expansion in virtual care post-COVID-19
- Older nurses are opting for nonclinical roles
- Excessive work-load on junior doctors
- Lack of cooperation between different “parts of the system”
- NGOs and voluntary organizations could share the burden of hospitals by offering noncritical services
- Challenges in providing mental and adolescent health virtually

Meet Sam*

Mental health worker

Why have you considered leaving the medical profession?

Sam: I resigned specifically because of the pressures of lack of staff, lack of being able to recruit consultants, staff ... There was a salary waiting to be paid to somebody, but we couldn't recruit anyone to do it. This is frustrating when we're advertising jobs, but there's just nobody to apply.

*Names have been changed

Source: EY Knowledge analysis of interviews
Ireland: by the numbers

90%
Of doctors reported experiencing depression or emotional stress due to work

3 in 4
Surveyed said they considered leaving their current work area

63%
Of Irish respondents said access to care was most valued to them

85%
Of nurses and midwives said staffing levels could not meet work demands

66%
Said patient safety was often or always at risk as a result of staffing levels

46%
Of nurses are foreign trained

40%
Of doctors are foreign trained

Ireland: voice of the health executive

“We have insufficient supply coming to Irish colleges, insufficient supply internationally and not really in a position always to compete internationally for low cost.

Insufficient local supply, high levels of employment offers great opportunities for health care workers to work in other disciplines or to work outside in the private sector, not necessarily in their profession of choice.

“One of the things that possibly has changed and contributes to doctors feeling overburdened are patients’ expectations and families’ expectations. And again, as a profession, we have dodged this as being a difficult topic to deal with. Patients’ expectations are extremely high now.

In the OECD, we’re one of the countries that produce the largest number of medical graduates, so we should be self-sustaining in terms of our workforce. But we’re not, and the reason is because we can’t seem to hang onto them.

Source: EY interviews
Ireland: voice of the clinician

“There’s a huge problem now between signal and noise. Where you look at somebody who is in ICU, and they have their blood pressure taken automatically every whatever it is 10 minutes, and you look down through their ICU chart. It will be this thick after about four days, but it is filled with automatically generated results. And because we don’t have a computer-based record, everything gets printed out and gets filed ... we’re collecting so much data that it is hard to tell the signal from the noise.

Big barrier in Ireland at the minute is notion of transfer of care or transfer of data. So, when patients cross that boundary, immediately post-hospital discharge, or indeed immediately after an outpatient clinic, we often have complete paucity of data. So, there can be delays of several weeks and lead up to months of time depending on dictation speeds in the hospital. And there’s a big gap there. The problem is the data capture on the hospital side.

The people who make the policy don’t deliver the service and the people who deliver the service don’t make the policy. There is kind of an odd disconnect between the Department of Health and the health service executive.

Source: EY interviews
UK findings
UK: what we heard from clinicians

Drivers of the shortages

- Remote working in health care is a challenge
- Siloed health care systems without any communication between departments/facilities
- System inefficiencies – long waiting queues
- Low wages
- Long work shifts
- Excessive admin work; unnecessary charting requirements

Meet Liz*

General practitioner (GP) of an NHS hospital

Why have you considered leaving the medical profession?

Liz: I was motivated by a lot of the systemic inefficiencies that I saw in the health system that resulted in me not only being unable to give my patients the best standard of care, but also hamper their ability to access care, like the long, long waiting lists. And it got to a point where I was quite frustrated with it.

The biggest systemic inefficiency in NHS for me was the fact that if a GP identified that a patient needed specialist care, they would then get referred to a specialist, but the waiting times for specialist appointments, depending on your condition would range from anywhere from three months to five years. When a patient finally gets to see you after a year of waiting, it’s the frustration that you see manifest and also sometimes the level that the disease has advanced that could be prevented at an earlier stage. It is really sad, and also quite frustrating.

*Names have been changed

Remote working in health care is a challenge
Siloed health care systems without any communication between departments/facilities
System inefficiencies – long waiting queues
Low wages
Long work shifts
Excessive admin work; unnecessary charting requirements
UK: by the numbers

Each FTE NHS doctor is doing the work of

1.3x doctors

4 in 10 Junior doctors are actively planning to quit

Of junior doctors in England felt unwell as a result of work-related stress in 2022

2.9 Doctors per 1,000 population in the UK, while OECD average is 3.7

June 2023 NHS report data

Of people working in the NHS feel that there are enough staff in their organization to allow them to do their jobs properly

68% of UK respondents said hospital at home will be an alternative to inpatient in next decade

EY Global Consumer Health Survey 2023

47,000 Nursing shortage

UK: voice of the clinician

"If a GP identified that a patient needed specialist care, they would then get referred to a specialist, but the waiting times for specialist appointments, depending on your condition would range from anywhere from three months to five years. Disease level gets advanced, and the patient ends up venting all the frustration to the GP."

"When you look at the salary comparison to a corporate job, for example, doctors have the same level of experience but the salary is much lower."

"AI-based radiology tools can be used once we validated that they’re safe to use in patients, because it saves a lot of time. If you could at least get a pre-read on a preliminary printout from an AI tool while you wait for the radiologist to confirm if it’s accurate; that would be helpful and speed up diagnosis treatment."

Source: EY interviews
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