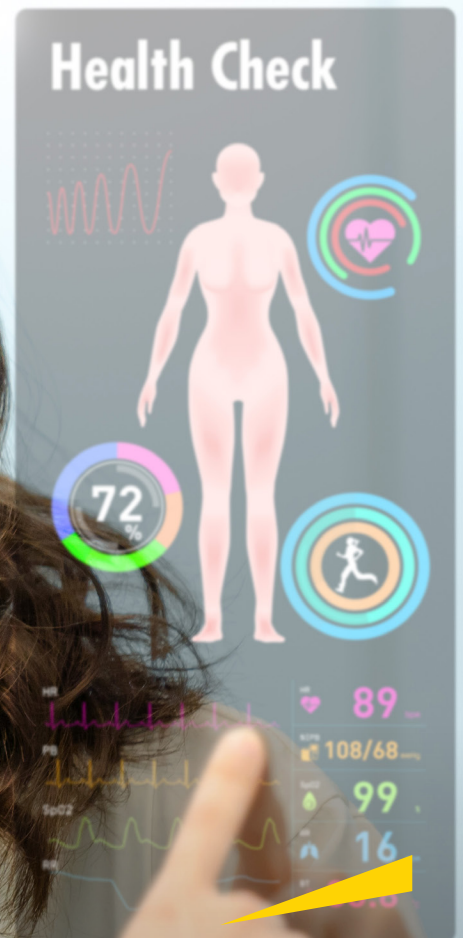


How will  
tech-enabled  
change play out  
in health care in  
the next decade?

**A NextWave Health report**



The better the question. The better the answer.  
The better the world works.

**EY**

Building a better  
working world



Physicians and consumers in three countries anticipate a clear shift to digital health.





# In the next 10 years, physicians and consumers expect that their health systems will be very different from today.

Over a relatively short period, the core business of health will be anchored around digitally enabled models of care, including virtual delivery and interactive person-centered tools. Health businesses without a game plan to incorporate tech-enabled highly personalized care will be found wanting as a maturing consumerism and transformative digital technologies align to create a powerful force for change.

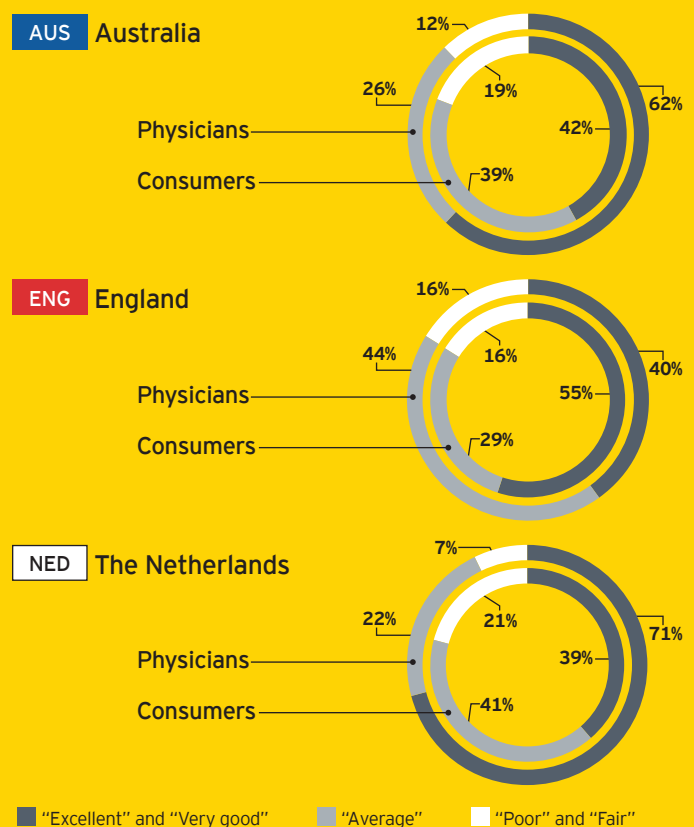
In mid-2018, EY surveyed 530 physicians and more than 6,000 consumers in Australia, England and the Netherlands to get a deeper appreciation of consumer and physician use of, and sentiment toward, digital health technologies. Of interest were consumer and physician perceptions about current health system performance and future expectations regarding tech-enabled system change.

Overall, in the three countries surveyed health systems are moderately well-regarded, but universally considered to lag in introducing digital health technologies. In total, physicians were more favorable with 57% rating overall system performance as "excellent" and "very good," compared with 45% of consumers. However, opinion diverges markedly between physicians and consumers and between the countries.

An experience perception gap is evident between physicians and consumers:

- ▶ Physicians in the Netherlands (71%) and Australia (62%) view their health system's performance far more favorably than do consumers (Netherlands 39%; Australia 42%), giving a favorable report card of "excellent" and "very good."
- ▶ In England, the reverse is evident. Consumers (55%) are more positively inclined and assign a positive rating of "excellent" and "very good," compared with physicians (40%).

How would you rate the overall performance of the health care system?



Data are rounded.

# A mixed report card

Satisfaction with elements of the health system also varies widely. Many consider that their health system performs well in critical areas such as access to care and being up-to-date with the latest treatments and innovations. In an era of concern over personal information security, health systems' performance in protecting identity and personal information is rated highly by more than half (57%) of physicians in all three locations, and by Australian and English consumers. In all domains of performance, consumers in the Netherlands are more reserved in their judgement. Across the board, there is considered to be room for improvement in customer service orientation, public health education and getting the right balance between care delivery channels.

Compared to other industries (such as online retailers or banks), consumers rate their health sector as:

	Innovative	Average	Not innovative
<b>AUS</b>	17%	60%	23%
<b>ENG</b>	25%	52%	23%
<b>NED</b>	15%	65%	20%

Consumers (n) = Australia 2,044; England 2,031; the Netherlands 2,038  
Data are rounded

## Ratings of health system performance

	<b>AUS</b>		<b>ENG</b>		<b>NED</b>	
	Physicians	Consumers	Physicians	Consumers	Physicians	Consumers
"Excellent" and "Very good"						
Introducing the latest treatments, drugs and medical innovations	60%	42%	34%	44%	37%	27%
Protecting an individual's identity and personal information	56%	50%	62%	59%	53%	36%
Access to care when and where people need it	56%	43%	46%	45%	62%	37%
Customer service orientation (e.g., positive experiences, convenience)	47%	40%	34%	47%	35%	28%
Educating the public on important health issues (e.g., obesity, diabetes)	44%	41%	31%	49%	30%	36%
Having the right balance between hospitals, primary care and community care	42%	36%	26%	41%	46%	28%
Introducing digital health technologies	31%	35%	21%	42%	27%	25%

Physicians (n) = Australia 177; England 178; the Netherlands 175  
Consumers (n) = Australia 2,044; England 2,031; the Netherlands 2,038  
Data are rounded

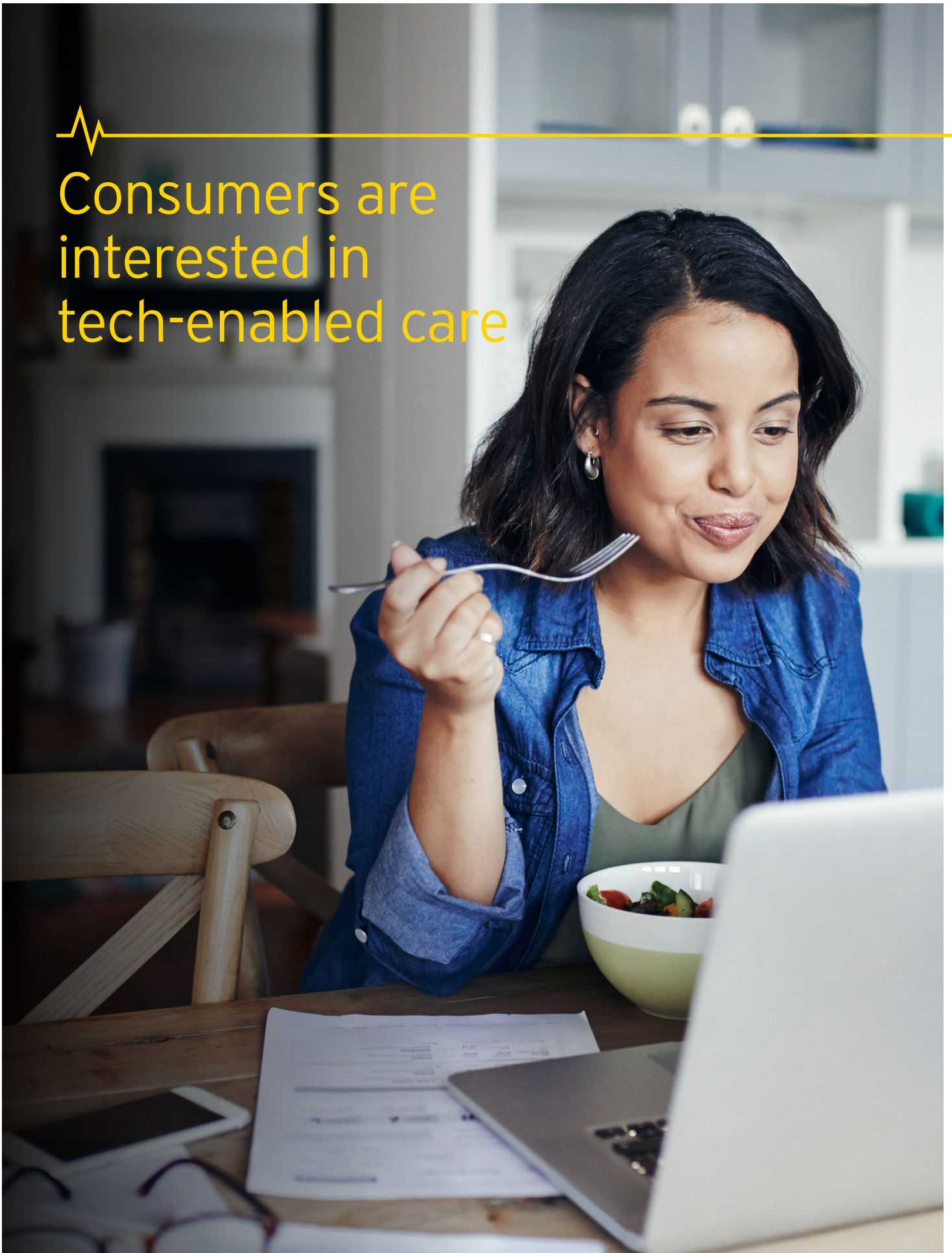


Many consider that their health system performs well in critical areas such as access to care and being up-to-date with the latest treatments and innovations.





# Consumers are interested in tech-enabled care



A leading edge of digitally engaged consumers in Australia, England and, to a lesser extent, the Netherlands are open to personalized medicines, predictive genetic testing and high-tech smart pills. Non-urgent care either through on-demand e-visits or in retail locations appeals, but use of robotics for treatment and virtual hospitals are rejected by many, especially consumers in the

Netherlands. Interestingly, all of the technologies we put forward for consideration by respondents are currently in use in health systems today. Many, however, are at an early stage of maturity and diffusion through health systems. As consumers begin to experience the benefits of such technologies and alternate care models in their lives, we expect to see rising levels of appreciation and interest.

### Consumers are open to tech-enabled care; genetic testing, personalized medicine and alternative care locations

I am willing to ...	AUS	ENG	NED
Undergo genetic testing to see if I might develop certain diseases or disorders	44%	50%	36%
Have non-urgent care from a health professional at a mini-clinic in a department store, supermarket or pharmacy	41%	57%	34%
Take medications made-to-order for my genetic profile	38%	45%	39%
Have an on-demand e-visit for common acute symptoms instead of an in-person visit	36%	45%	25%
Be treated with a high-tech product, e.g., smart pills that travel in my blood and transmit messages to my phone	31%	38%	24%
Receive a diagnosis, drug prescription or undergo surgery by a robotic device	27%	32%	16%
Be treated at a virtual hospital – one with no beds, that delivers basic and advanced care through digital consultations and remote monitoring	25%	33%	19%

“Completely” and “Very willing to”

Consumers (n) = Australia 2,044; England 2,031; the Netherlands 2,038

Data are rounded





In the next decade,  
digital health technologies  
will become commonplace





Both physicians and consumers see technologies that systematize care delivery systems and processes such as artificial intelligence (AI), case management and care delivery pathways becoming part of everyday care. The management of clinical conditions such as chronic, complex diseases will likely be underpinned by digital technologies that enable remote teams to care for people in their homes. Clinically oriented technologies such as AI-assisted diagnostics, imaging analysis and medication management, and precision medicine are expected to become part of the core business of medicine. Physicians in particular anticipate that new and non-traditional players will enter the health industry, bringing profoundly different ways of approaching the delivery of health and care.

Virtual services are not a highly anticipated innovation. And yet, around one-quarter and one-third of both physicians and consumers see virtual presence technologies (physicians 38%, consumers 36%) or virtual hospitals (physicians 25%, consumers 36%) being likely in the near future. These new care models may seem to be just a little too far over the horizon. However, they are already in play (for example, Mercy Virtual Care Center ([www.mercyvirtual.net](http://www.mercyvirtual.net)) and Intermountain Health's Connect Care Pro ([intermountainhealthcare.org](http://intermountainhealthcare.org))). Capabilities in scaling and diffusing radically different care models likely holds future opportunity for both industry players and those looking to enter the industry.

### To what extent do you believe the following will likely occur in the health industry in your country in the next 10 years?

Ratings: "Very likely" or "likely"

#### In the next decade ...

	Physicians	Consumers
Digital technologies will enable care teams to remotely coordinate complex patient care	64%	53%
Companies from outside the health industry will enter the health industry with profoundly different approaches to health care	60%	43%
Artificial intelligence technologies will be commonly used for diagnosis, medical imaging analysis and medication management	57%	47%
Smartphones will become the primary interface in the health system, allowing people to manage and improve their health and wellness anywhere and at any time	54%	46%
Precision medicine technologies such as DNA sequencing will become a routine part of preventive primary care	50%	46%
Virtual presence (e.g., through a virtual reality headset) will become a substitute for a health professional being physically present	38%	36%
Virtual hospital with no beds will deliver both basic and advanced medical care (e.g., stroke evaluation) through digital e-consultations and remote patient monitoring	25%	36%

Physicians (n) = 530; Consumers (n) = 6,113

The pivot point is where high expectations meet up with high-tech to transition to a health system that is information rich, patient-centered, intelligent and connected.





## Top three changes anticipated in the next decade

	Physicians	Consumers
<b>AUS</b>	<ol style="list-style-type: none"> <li>Digital technologies will enable care teams to remotely coordinate complex patient care <b>65%</b></li> <li>Companies from outside the health industry will bring profoundly different approaches to health care <b>63%</b></li> <li>Precision medicine, e.g., DNA sequencing, will become routine in primary care <b>56%</b></li> </ol>	<ol style="list-style-type: none"> <li>Digital technologies will enable care teams to remotely coordinate complex patient care <b>54%</b></li> <li>Precision medicine, e.g., DNA sequencing, will become routine in primary care <b>48%</b></li> <li>Artificial intelligence technologies will be commonly used for diagnosis, imaging analysis and medication management <b>47%</b></li> </ol>
<b>ENG</b>	<ol style="list-style-type: none"> <li>Companies from outside the health industry will bring profoundly different approaches to health care <b>69%</b></li> <li>Digital technologies will enable care teams to remotely coordinate complex patient care <b>65%</b></li> <li>Smartphones will become the primary interface in the health system; people can manage health anywhere and anytime <b>60%</b></li> </ol>	<ol style="list-style-type: none"> <li>Digital technologies will enable care teams to remotely coordinate complex patient care <b>56%</b></li> <li>Precision medicine e.g., DNA sequencing, will become routine in primary care <b>52%</b></li> <li>Companies from outside the health industry will bring profoundly different approaches to health care <b>51%</b></li> </ol>
<b>NED</b>	<ol style="list-style-type: none"> <li>Digital technologies will enable care teams to remotely coordinate complex patient care <b>61%</b></li> <li>Artificial intelligence technologies will be commonly used for diagnosis, imaging analysis and medication management <b>59%</b></li> <li>Smartphones will become the primary interface in the health system; people can manage health anywhere and anytime <b>55%</b></li> </ol>	<ol style="list-style-type: none"> <li>Digital technologies will enable care teams to remotely coordinate complex patient care <b>48%</b></li> <li>Artificial intelligence technologies will be commonly used for diagnosis, imaging analysis and medication management <b>44%</b></li> <li>Smartphones will become the primary interface in the health system; people can manage health anywhere and anytime <b>40%</b></li> </ol>

Physicians (n) = Australia 177; England 178; the Netherlands 175

Consumers (n) = Australia 2,044; England 2,031; the Netherlands 2,038

Data are rounded

## In the next decade

Key stakeholders (physicians and consumers) expect the health care systems in the three countries surveyed to change markedly through the adoption of transformative technologies. These lay the foundations for radically different approaches to managing lifelong health, care and well-being. While in-person consultations and hospitals will always play a vital role in any health system, digital and mobile technologies support re-envisioning health care way beyond episodic, acute and facility-based care. In the future state, individuals will access care regardless of geography through teleconnected services, and the core business of health and care will be anchored around digitally enabled models of care.

Therein lies the challenge: to close the gap between the health systems of today and what is expected in the near future. For health care businesses and government bodies, this means weighing where and when to shift focus, investments and the balance from capital and facility intensive systems to a digitally driven ecosystem. The pivot point is where high expectations meet up with high-tech to transition to a health system that is information rich, patient-centered, intelligent and connected.

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For complete report materials, please visit [ey.com/consumerhealthsurvey](http://ey.com/consumerhealthsurvey).

## About the study

In July 2018, EY surveyed online 530 physicians and 6,113 health care consumers in three locations: Australia (177 physicians and 2,044 consumers), England (178 physicians and 2,031 consumers) and the Netherlands (175 physicians and 2,038 consumers). Physicians included GPs/primary care practitioners and specialists and respondents worked in a variety of practice settings, including solo, group and hospitals. Consumer data were weighted to reflect population and geographic distributions. The survey was translated into Dutch.

In this study, we define digital health technologies broadly as an array of technologies that underpin different ways of delivering health and care to support participation and drive better health outcomes, improve quality of care and optimize business models.

The objective of the study was to examine consumer and physician attitudes and propensity to use digital health technologies for health and wellness, as well as to explore willingness to engage with future health care technologies that are accelerating the changing face of health care. Specifically, to:

- ▶ Develop an understanding of consumer engagement with the health care sector and health-related technology adoption and usage
- ▶ Develop an understanding of physician attitudes toward and perceived benefits derived from health care technologies
- ▶ Explore perceptions about and willingness to engage with upcoming digital health technologies

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Around the world, the health sector is being reimagined in the face of aging populations, increased prevalence of chronic diseases, growth in emerging markets and shifting reimbursement models. Health care organizations must address these challenges while mastering the digital innovation that offers both opportunities and threats. Technology empowers patients, real-time analytics improves care and enables a mind shift towards prevention - but also opens the door to new non-traditional competitors. EY works with clients to reposition and optimize their business models, people strategies and operational structures to address cost pressures while leveraging the potential of analytics and technologies to improve quality of care. In this way, we help health organizations stay competitive and deliver better patient outcomes both now and in the future.

EY Global Health Sector brings together a worldwide network of more than 6,000 sector-focused assurance, tax, transaction and advisory professionals with a range of health care and business backgrounds. Our wide-reaching network allows us to rapidly share leading practices and solutions around the globe and deploy diverse delivery teams to meet your needs. [ey.com/health](http://ey.com/health)

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