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**Sweden**

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# Introduction

**The 2018 Future Health Index (FHI) introduces the Value Measure, a new indicator of the value delivered by healthcare systems of developed and developing markets. Combining criteria associated with value-based healthcare and access to care, the Value Measure provides a benchmark against which a system's progress towards efficient and effective healthcare can be evaluated.**

The report also includes the input from global healthcare experts and provides actionable insights for countries to improve the value that their health systems deliver.

The Value Measure is based on three key criteria:

- Access i.e. how universal and affordable is access to healthcare?
- Satisfaction i.e. to what extent do the general population and healthcare professionals in each market see their healthcare system as trustworthy and effective?
- Efficiency i.e. does the system produce outcomes at an optimum cost?

The FHI analyzes the primary research and third party data from across 16 countries, representing about half of the world's population.

- 3,244 healthcare professionals (defined as those who work in healthcare as a doctor, surgeon, nurse practitioner, registered nurse, licensed practical nurse or nurse across a variety of specializations).
- 24,654 adults (representative of each country's respective adult population).
- Third-party data was sourced from a number of organizations including the World Health Organization, The Commonwealth Fund, and the World Bank.

## Sources

- **All full list of sources can be found on the FHI website:**

<https://www.futurehealthindex.com/report/2018/chapter/3808/research-methodology-and-sources/?lang=en>

- **Read or download the full 2018 report here:**

<https://www.futurehealthindex.com/report/2018/>

# Summary: Healthcare in Sweden

- Sweden has an above average Value Measure. While the country surpasses the average on several factors, there is room for furthering efficiency in healthcare spend.
- When it comes to access, high healthcare professional density and no risk of impoverishing expenditure for surgical care drive Sweden's high Value Measure.
- Overall satisfaction levels are high in Sweden among both the general population and healthcare professionals.
- Data collection is well underway in Sweden, as the country is one of the top adopters of, and investors in, electronic health record (EHRs) and wearables. However, it lacks a universal EHR.
- Sweden is a leader when it comes to data analytics, achieving the highest score of all markets. This indicates the country is an early adopter of artificial intelligence (AI) tools in healthcare.
- Adoption of telehealth in Sweden is much higher than the 16-country average across all metrics, suggesting care delivery in Sweden is at a very high standard.
- Sweden comes in above average for diagnosis and treatment solutions, demonstrating its leadership in the space.
- In line with Sweden's high scores on data collection and analytics, as well as care delivery, Swedish healthcare professionals and the general population are highly interested in new technology supporting healthcare, which could improve the way information is processed.
- As shown through Sweden's top score in data analytics, the Swedish general population is open to the use of futuristic technology (AI, virtual reality, etc.) in healthcare, although they still desire the human element. Technology should be a supplement to quality care from healthcare professionals, not a replacement.
- With Sweden having one of the highest scores in data collection, Swedish healthcare professionals understand connected care technology, including telehealth, as a valuable tool to support their work, rather than replace it.
- Sweden's efficiency falls below the 16-country average, suggesting room for improvement.

# Value Measure

- Sweden scores above the 16-country average overall and across several factors. Sweden has some of the highest scores in access and satisfaction, while its efficiency ratio falls below the 16-country aggregate, indicating healthcare spend is currently not being effectively utilized.

## VALUE MEASURE 2018

	Sweden	16-Country Average
<b>Value Measure:</b>	<b>48.10</b>	<b>43.48</b>
Access:	62.14	50.91
Satisfaction:	61.05	52.85
Efficiency (spend on healthcare/outcomes):	21.11	26.69

### Healthcare professionals

- Across all countries surveyed, Sweden has one of the highest density of skilled healthcare professionals (HCPs) relative to the size of the population (161 per 10,000 population vs. 109 average).

### The patient's needs

- About half of the general population (53%) and about two-thirds (61%) of healthcare professionals agree that the healthcare available in Sweden meets patients' needs.
- Additionally, trust levels are high among the general population (64%) and especially high among healthcare professionals (89%), suggesting strong support from the public and those working in the healthcare field.

### Room for improvement

- While Sweden comes in above average for satisfaction, only about four in ten (39%) healthcare professionals said healthcare overall in Sweden is very good or excellent, implying room for improvement in areas such as long wait times and healthcare professional burnout.

### Healthcare spendings

- Despite Sweden's above average outcome score (90.0 vs. 77.3 average), the efficiency is curbed by the country's high healthcare spend as a percentage of its GDP (11.9% vs. 9.0% average). This is indicative of inefficient spend on healthcare.

# Data Collection and Analytics

- This section describes the ability to share and collect patient centric data and analyse it on a large scale. Sweden surpasses the 16-country average for data collection and analytics overall and across several factors. Sweden is particularly well ahead of the curve when it comes to data analytics, where it is the only country reaching the top score.

## CURRENT STATE: DATA COLLECTION & ANALYTICS

	Sweden	16-Country Average
<b>Overall score:</b>	<b>59.43</b>	<b>31.03</b>
Data collection (EHRs & wearables):	45.91	28.57
Data analytics (AI):	100.00	38.39

### Wearable devices and infrastructure

- Adoption of fitness wearables is comparatively high in Sweden (0.05 users per capita vs. 0.04 average), indicating consumers are likely interested in tracking their personal data. Sweden is among the top when it comes to expenditure on wearable medical devices, as it has one of the highest per capita spending across all markets surveyed (\$21.57 per capita vs. \$6.33 on average).
- Sweden's technology infrastructure is well poised to take its already high wearable and EHR use even further, as metrics related to mobile and cellular use perform well and there are data protection policies in place. However, for further adoption of digital enablers to take place, concrete examples of success may be needed for clinicians to see the possibilities and start focusing on how this can lead to new innovations.
- Additionally, Sweden's investments in software solutions for inventory management, electronic medication administration record, computerized physician order entry and clinical decision support system solutions are well above the 16-country average.
- While end-use rates of EHRs within hospitals and ambulatory settings are among the highest across all countries surveyed, Sweden's high data collection score is curbed by the lack of a universal EHR.

### Data analytics

- Sweden is the only country across all markets surveyed scoring 100.00 in data analytics, implying high interest, investment and adoption of AI for preliminary diagnosis and therapy planning.

# Care Delivery

- This section describes technology developments which are bringing innovative ways to deliver better care. Determining where countries stand with regards to the adoption of health data and technology-enabled care delivery models will help identify strengths and ‘weak spots’ where change should be prioritized or has the most potential to produce gains. This will help highlight a more targeted path towards value-based healthcare.
- Sweden scores significantly higher than the 16-country average for care delivery, driven by its investments in telehealth and imaging, which are among the highest of all countries included in the study.

## CURRENT STATE: CARE DELIVERY

	Sweden	16-Country Average
<b>Overall score:</b>	<b>49.98</b>	<b>22.41</b>
Telehealth:	65.62	25.52
Diagnostic & treatment solutions (imaging, IGT and assisted surgery):	34.34	19.31

### Telehealth

- The current state of care delivery in Sweden is boosted by a high number of telehealth monitoring units and staff throughout the health system, such as in hospital, home care and ambulatory settings. Overall, Sweden is well above the 16-country average for expenditure on telemedicine<sup>1</sup> (\$59.17 per capita vs. \$25.09 average).
- While still ahead of most countries included in the FHI, when it comes to the number of users of pay-to-use apps for connected medical devices for use at home and for telemedical service relating to remote patient monitoring, Sweden is not as far ahead as one might expect (0.0026 users per capita vs. 0.0023 average), suggesting an opportunity to build on existing adoption of these apps even further.

### Image guided therapy

- Sweden surpasses many other developed countries for expenditure on image guided therapy (\$1.90 per capita vs. \$1.28 average), as well as in the imaging areas of X-ray, CT, MRI, SPECT and PET.
- Additionally, Sweden invests heavily in assisted surgery, surpassing the average (\$49.44 per capita vs. \$19.55 average).

<sup>1</sup> Grand View Research. (2016). *Telemedicine Market Report*.

