

Japan: robots will care for 80% of elderly by 2020

Japanese government wants to increase acceptance of technology that could help fill the gap in the nursing workforce



Japan's elderly are being told to get used to being looked after by robots.

With Japan's ageing society facing a predicted shortfall of 370,000 caregivers by 2025, the government wants to increase community acceptance of technology that could help fill the gap in the nursing workforce.

Developers have focused their efforts on producing simple robotic devices that help frail residents get out of their bed and into a wheelchair, or that can ease senior citizens into bathtubs.

But the government sees a wider range of potential applications and recently revised its list of priorities to include robots that can predict when patients might need to use the toilet.

Dr Hirohisa Hirukawa, director of robot innovation research at Japan's *National Institute of Advanced Industrial Science and Technology*, said the aims included easing the burden on nursing staff and boosting the autonomy of people still living at home.

"Robotics cannot solve all of these issues; however, robotics will be able to make a contribution to some of these difficulties," he said.

Hirukawa said lifting robotics had so far been deployed in only about 8% of nursing homes in **Japan**, partly because of the cost and partly because of the

"the mindset by the people on the frontline of caregiving that after all it must be human beings who provide this kind of care".

He added:

"On the side of those who receive care, of course initially there will be psychological resistance."

Hirukawa's research centre has worked on a government-backed project to help 98 manufacturers test nursing-care robotic devices over the past five years, 15 of which have been developed into commercial products.

In the interests of lowering cost and complexity, these types of robots do not yet resemble humans or talk to users, but deploy smart technology to help people in specific situations.

One example is an electric-boosted mobility aid that a person can hold onto when walking around city streets.

The sensors detect if the user is going uphill and a booster function is activated. When the walker is detected going downhill, an automatic brake kicks in to reduce falls.

“In Japan we already have motor-supported bicycles so it is like a version of an assist for walking,” Hirukawa said during a demonstration at the Foreign Press Center Japan.

The **next research priorities** include wearable mobility aid devices and technology that guides people to the toilet at what it predicts is the right time.

According to Japan’s **robot strategy**, the government hopes that four in five care recipients accept having some support provided by robots by 2020.

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