1. Short of Manpower in the Elderly Care and Health industry

The shortage of healthcare personnel is a well-known issue in Hong Kong. According to a report in Ming Pao on November 21, 2022, the turnover rate for full-time nurses in public hospitals has worsened to 10.1%, while the resignation rate for doctors is 8.3%. On May 4, 2022, the Legislative Council addressed the shortage of nursing personnel, stating that the vacancy rate for frontline care workers in subsidized service units, including residential care homes and daycare centres, is as high as 17.6%. Unfortunately, frontline positions lack recognition and promotion opportunities, and the average age of care workers is relatively high, with few young people entering the profession. Conversely,

The health worker profession attracts many young people. Still, they lack a clear promotion ladder, leading some health workers with good performance to hope to become a nurse for better salary levels and working hours.

The future challenges the health industry is facing:

- Short of Manpower supply, especially Nurses and Care Workers
- Hard to retain the current frontline staff
- Some frontline staff have low job satisfaction and thus leading to increase turnover.
- Job duties such as changing diapers and night shifting are challenging and may be offensive to some staff. The caregivers execute most of the caring process without equipment, such as changing diapers.
- Lack of staff training and practical experience after graduation or certification.

2. Fall risk or fall prevention

Falls are a common and serious problem in care homes, especially among older adults and those with physical or cognitive impairments. Fall prevention is, therefore, a major challenge for care home staff and management. Sometimes care home staff and the resident's family members have to make a hard choice to balance residents' autonomy with safety.

The main challenge might be:

- Detecting when the resident is about to leave the bed or sofa, alert caregivers.
- Maintain residents' mobility to remain active and mobile, maintaining strength and balance.
- Balancing resident autonomy and safety.
- Measures and environmental design that will achieve fall prevention.

3. Waste Management and environmental protection

Waste management is a significant challenge for healthcare facilities and the health industry, given the large amount of waste they generate, including food, medical, and other materials. For instance, The COVID-19 pandemic has led to the widespread use of disposable masks to prevent the spread of the virus. However, this has resulted in a significant increase in mask waste produced, which can have negative environmental consequences.

- Proper waste segregation is a crucial challenge that healthcare facilities face, as they must ensure that recyclable materials are separated from non-recyclable materials and that medical waste is disposed of safely.
- Limited space for waste storage can also make it challenging for healthcare facilities to manage waste effectively, leading to overflowing bins and unsanitary conditions. Additionally, medical waste disposal can be particularly challenging due to safety regulations and the infectious nature of medical waste.
- Healthcare facilities may face significant costs associated with waste disposal, particularly if they generate large amounts of medical waste or other hazardous materials.
- Improper waste management practices can also have adverse ecological effects, such as contributing to greenhouse gas emissions or polluting waterways, making it crucial for healthcare facilities to adopt sustainable waste management practices to minimize their environmental impact.

4. Dementia as a current and future health challenge

Dementia is a progressive neurodegenerative disorder that affects cognitive functions such as memory, thinking, and language. It poses a significant challenge to the healthcare industry due to its complex nature and the need for specialized care.

- One of the primary challenges of dementia is providing appropriate care to patients with varying degrees of cognitive impairment. As the disease progresses, patients may require increasing levels of support, including assistance with daily living activities, medication management, and specialized care to address behavioural and psychological symptoms.
- Another significant challenge is managing the costs associated with dementia care. Dementia patients often require long-term care, which can be expensive and significantly burden caregivers and healthcare systems. Moreover, the cost of dementia care is likely to increase as the cognitive condition continues to drop, making it a significant public health concern.
- Dementia can significantly impact caregivers' mental and physical health, who may experience high levels of stress, depression, and burnout. Burnout can affect the quality of care provided to people with dementia and have broader implications for the healthcare industry.
- There is a need for further research and development of new treatments for dementia. Continued research and study are critical to developing new treatments and improving outcomes for patients with dementia.

5. Restrain Free

Restraints refer to purposely-made devices or drugs to limit a resident's movement to minimize harm to self and others.

Commonly used restraints may include safety belts, safety vests, soft ties, restrictive gloves or wrist restraints etc. Chemical restraints refer to the use of medications for restraint.

Restrains are widely used in hospitals and elderly homes, especially those with dementia. The Social Warfare Department has a general principle that elderly homes must avoid using restraints as far as possible. Due to the lack of workforce issues and the concern about safety precautions, restraints are often used to manage challenging patients. Particularly restraints are wildly used to restrain people with dementia with server BPSD and wandering issues. Most dementia elderly are identified as a high risk of fall case. And an unwanted fall could be deadly for them. Sometimes care homes use restraints to keep them safe.

Research and reports found that free restraints greatly benefit patients' quality of life. Our challenge is to achieve restraints free in the health industry. In a nutshell, the challenge would be to keep the patient/elderly safe while maintaining a certain degree of autonomy. Most unsafe situations would be the risk of falls or self-harm. There are new technologies to replace traditional restraints, but we still need more helpful interventions to achieve restraints-free.