Productivity Reimagined:

Innovative Insights and Good Practices for Community Care Organisations

What Is This About?

This eBook is designed for organisations in the Community Care sector to consider the factors that may affect their productivity and explore alternative approaches to increase their productivity levels. It provides insights and observations gleaned from the Smart Workflow Infrastructure Technology (SWIfT) Study, along with recommended good practices that organisations can adopt. The eBook aims to assist Community Care organisations (CCOs) with improving processes, leveraging technology, and optimising resources to enhance overall productivity.

Who Is This eBook For?

This eBook serves as a reference for senior management staff (such as Chief Executive Officers, Chief Operating Officers and Directors of Nursing) who are looking to drive improvements in efficiency for their organisations.

Healthcare professionals and operational teams in the Community Care sector who are advocates for improvement within their organisations, whether in residential or centre-based care settings, may also find this eBook useful.

When Should I Use This?

Community Care organisations should refer to this eBook when:
+ Starting a new facility
+ Redesigning or improving an existing facility
+ Looking at driving productivity at the organisational level
+ Introducing new solutions

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1 Foreword

1 Foreword by the Agency for Integrated Care

Mr Tan Kwang Cheak
Chief Executive Officer,
Agency for Integrated Care

With Singapore's rapidly ageing population, evolving client needs and rising care expectations, the Community Care sector needs to expand its capacity and capabilities to meet the care needs of Singaporeans and seniors now and in the future.

Faced with slowing workforce growth and competition for manpower, we will need to relook at how quality and effective care can be delivered with optimal resource use and leverage on process improvement and technological advances. Our approach needs to evolve to be high-touch, high-tech and full-care.

The SWIfT Study was thus initiated in 2020 to look at the future of Nursing Home (NH) care through an integrated and comprehensive review of infrastructure design, process and productivity, and technology introduction.

Over three years, we reviewed key areas at the nursing home, sector and policy levels in terms of improvements. We also validated the review outcomes through project implementation with the support of our NH partners – Kwong Wai Shiu Hospital, St. Andrew's Nursing Home (Queenstown), St. Andrew's Nursing Home (Taman Jurong), The Lentor Residence and Vanguard Bukit Batok Care Home.

This eBook has been developed to share the learnings and insights gleaned from the SWIfT study, as well as to highlight some of the good practices from SWIfT projects implemented in CCOs. It fully complements our efforts on the manpower (including job redesign), quality, and digitalisation fronts (including the Community Care Digital Transformation Roadmap) as key enablers to support the development of the Community Care sector.

We encourage you to utilise this eBook in support of the Productivity and Digitalisation Grant (PDG) to drive your transformation and productivity efforts in delivering quality care and a great client experience.

2

Background to the SWIfT Study

2 BACKGROUND

The SWIfT Study was commissioned by Agency of Integrated Care (AIC) and Ministry of Health Holdings (MOHH) in 2020 with the aim of improving productivity within NH wards. It adopted a holistic approach comprising workflow improvements, technology adoption, and/or enhancements to physical infrastructure.

Philips Singapore, the appointed consultant for this study, collaborated with the Ministry of Health (MOH), MOHH, AIC and five participating NHs to review and recommend improvements to layouts and workflows before identifying suitable technological solutions that could be used to improve productivity at NH wards.

The five participating NHs are:

- Kwong Wai Shiu Hospital
- St. Andrew's Nursing Home (Queenstown)
- St. Andrew's Nursing Home (Taman Jurong)
- The Lentor Residence
- Vanguard Bukit Batok Care Home

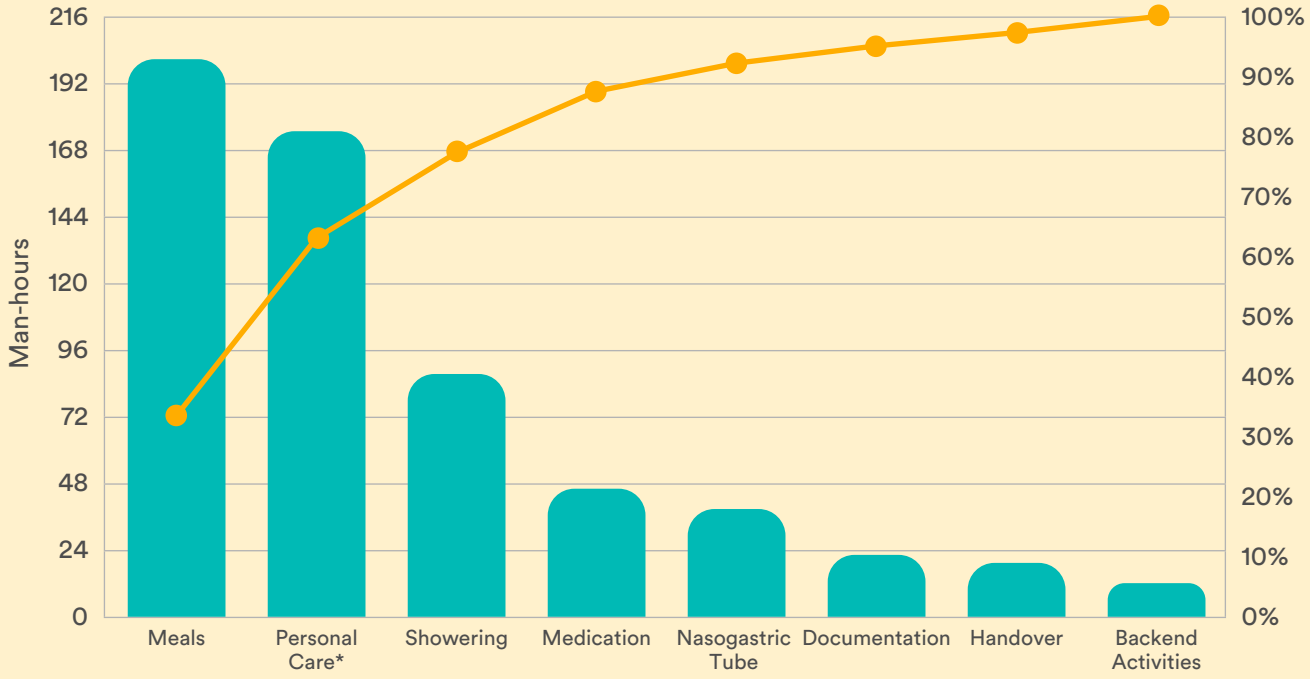
Study Approach

A blended approach, adopting Lean and Ethnographic methodologies, was used to understand the challenges and issues that NHs face.

Study Findings

Using the data collected from onsite observations, the following pareto diagram shows the NH ward processes that consume the most resources.

Top resource consuming processes identified through quantitative data collected



*Personal care includes transfer, oral hygiene, bed turning, diaper changing and taking vitals.

Other contributing factors affecting productivity identified through observations

Morning peak hours

- Multiple concurrent activities taking place in the morning

Manpower

- Unexpected events and/or absences (medical leave) resulting in staffing issues

Utilisation of tacit knowledge

- Care staff not sufficiently trained in specific clinical practices such as managing residents with dementia

Inter-departmental coordination

- Information gap due to lack of coordination and communications between care and operations team

Adoption of new technology

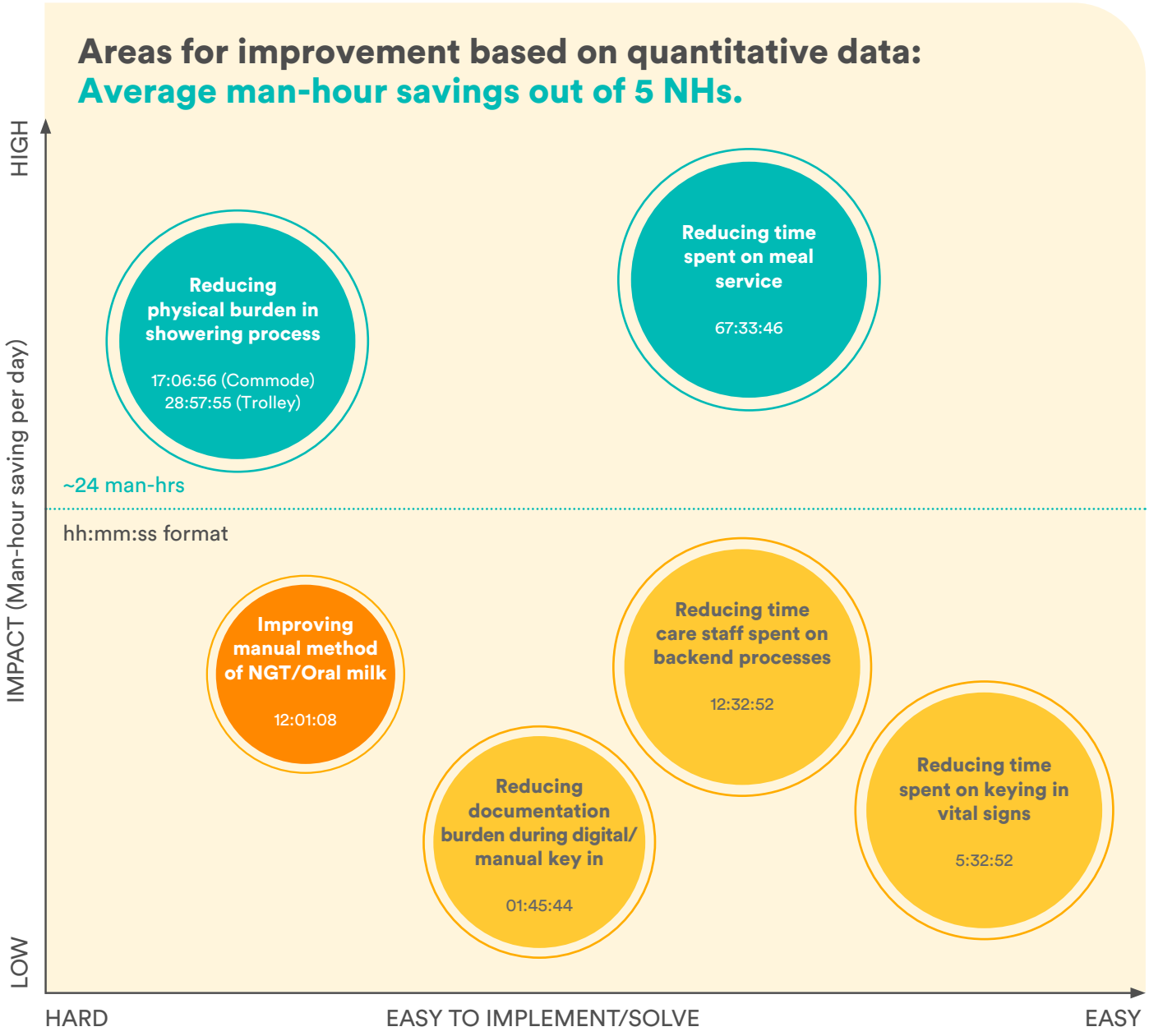
- Inadequate guidance on the identification, selection and implementation of appropriate technology

Layout

- Inadequate space for storage of consumables and parking space for equipment

Identified Areas for Productivity Improvement

Philips identified areas where productivity could be improved based on data analysis. These areas are displayed below, divided according to quantitative and qualitative factors.



Qualitative data-driven areas for improvement: Challenges commonly identified through observations and interviews.

1. Improve efficiency in processes influenced by **resident profile** (e.g., trolley shower, fall risk, etc.)
2. Reduce physical strain by improving **transferring process**
3. Improve consistency in **staff deployment/rostering**
4. Alleviate fatigue in **monitoring process** (at night)
5. Develop a structured **new technology adoption process**
6. Improve efficiency and safety in **restraining process**

3

Levers That Impact An Organisation's Productivity

3 Levers That Impact An Organisation's Productivity — 5E + 2P

Having identified the areas for improvement, Philips utilised productivity levers, divided into "indirect" and "direct" levers, to categorise productivity drivers.

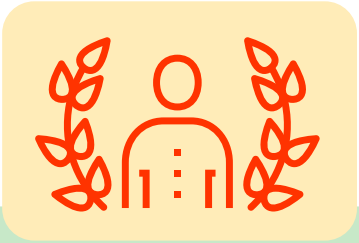
These levers, **5E + 2P**, were identified as the main factors in driving an organisation's productivity:

- Indirect levers: **Ethos** and client **Engagement** contribute to an organisation's productivity at a systemic level in the long-term
- Direct levers: **Employee** capability and capacity, **Environment**, **Equipment**, **Process** and client **Profile** have a more immediate and visible impact on daily productivity

5E + 2P	Ethos	Client Engagement	Employee Capacity and Capability	Environment	Equipment	Process	Client Profile
Primary Question	What is the management's culture/ philosophy?	What is being done to engage the clients?	What is the capacity and capability of the staff involved in performing the work?	What is the infrastructure put in place to support the staff in their work?	What is the equipment provided to support the staff in their work?	What is the process put in place to perform the work?	What is the profile of the clients being served?
Secondary Questions	What is being done to reinforce the culture/ philosophy?	Who is involved in engaging the clients? How are we keeping them engaged?	Do we have sufficient staff to perform the work? Are the staff equipped with the skills and knowledge to perform the work?	Does the current layout support the staff with their work?	Who is using the equipment? How is the equipment being used? Is the equipment being used correctly and for its intended purpose?	Do we have Standard Operating Procedures (SOPs) in place for the work performed? How are SOPs communicated to the staff? How do we ensure compliance to the SOPs?	Who is receiving the service? Do we know the profile of the clients? What is being done to serve the client?

These seven levers, while mutually exclusive, are also interrelated, and any decisions or changes made to a lever will have an impact on the other levers.

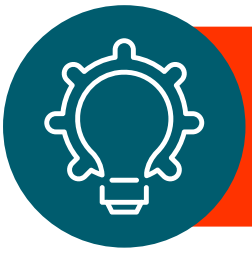
Using all seven levers as a framework, organisations can take a holistic approach to productivity towards achieving long-term, sustainable improvement. This is a departure from the traditional process-based approach, which tends to focus on process, technology, and infrastructure in isolation.



Ethos examines the shared values, beliefs, and practices of an organisation. The ethos of an organisation is typically established by its leadership, communicated and reinforced through various methods, to shape employee perceptions and behaviours.

How **Ethos** facilitates productivity

- A strong organisation culture fosters open communication between management, staff and clients
- Engaged leadership promotes a greater sense of inclusion and provides a sense of belonging for staff, which fosters productivity
- More opportunities for innovation as the environment encourages creativity



What might be the areas in your organisation's culture and philosophy that boost both productivity and staff engagement?

Client **Engagement** looks at the dependency of interpersonal engagement between staff and clients and the impact on resources.

How Client **Engagement** supports productivity

- Active engagement between care staff and residents enhances the residents' overall wellbeing
- Client satisfaction increases when they are cared by happy staff
- Happy employees are productive employees, which ultimately lead to greater client satisfaction
- Organisations must find a balance between meaningful resident engagement and available resources

What do you do to ensure your staff (internal customers) are highly engaged, and to positively influence your residents and their family (external customers)?

Employee Capability and Capacity looks at staff ability and availability to execute a specified course of action or to achieve certain outcomes.

How **Employee** Capability and Capacity impacts productivity

- Current staff rostering practices may not account for certain factors (e.g., staff accompanying residents for appointments, relevant skillsets), leading to insufficient or inconsistent staff numbers per shift, thus disrupting or delaying workflow
- Insufficient staffing necessitates overtime and increases the workload of care staff covering for ad-hoc or planned duties
- Overloading staff with tasks outside their skillset limits their ability to fully utilise their skills
- Effective capacity management and capability development are critical for optimising staff performance

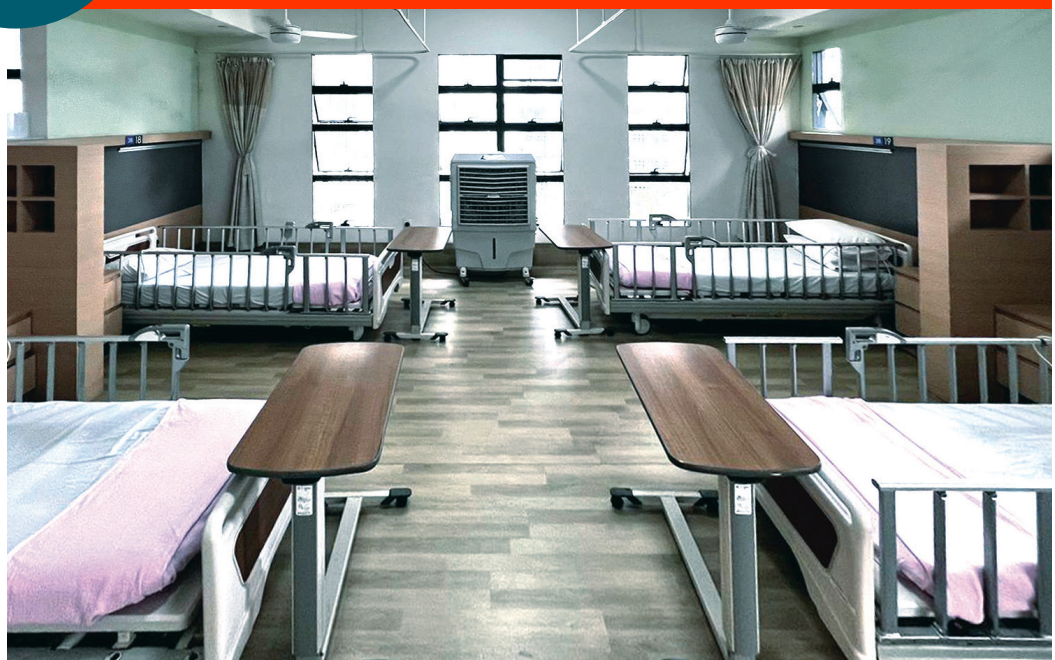
Where are you in this transition to ensure staff performance is sustained over time?

Environment looks at the built environment and supporting elements such as equipment, accessibility, information technology (IT), systems and processes, sustainability initiatives and staff.

How **Environment** impacts productivity

- Thoughtful design can foster a positive and energised workforce, promoting collaboration, interaction, and flexible working arrangements
- Aligning workplace design with work patterns can improve workflows and reduce waiting time
- Supportive physical environments can improve staff satisfaction and alleviate the stress of challenging working conditions

What is the work environment you have built to help your employees become part of a productive workforce?



Equipment looks at the creation, usage and knowledge of tools, techniques, crafts, systems, or methods of organisation, to solve a problem or serve a purpose.

How **Equipment** impacts productivity

- A mismatch between the technology in use and actual needs can result in technology under-utilisation
- The impact of new technology on workflow and operations may not be adequately assessed prior to implementation
- To unlock the full potential of technology, organisations must implement a structured evaluation and adoption process with clear change management strategies

What might be some simple, innovative, or assistive technologies you can adopt to interface with residents and their families in order to enhance productivity?

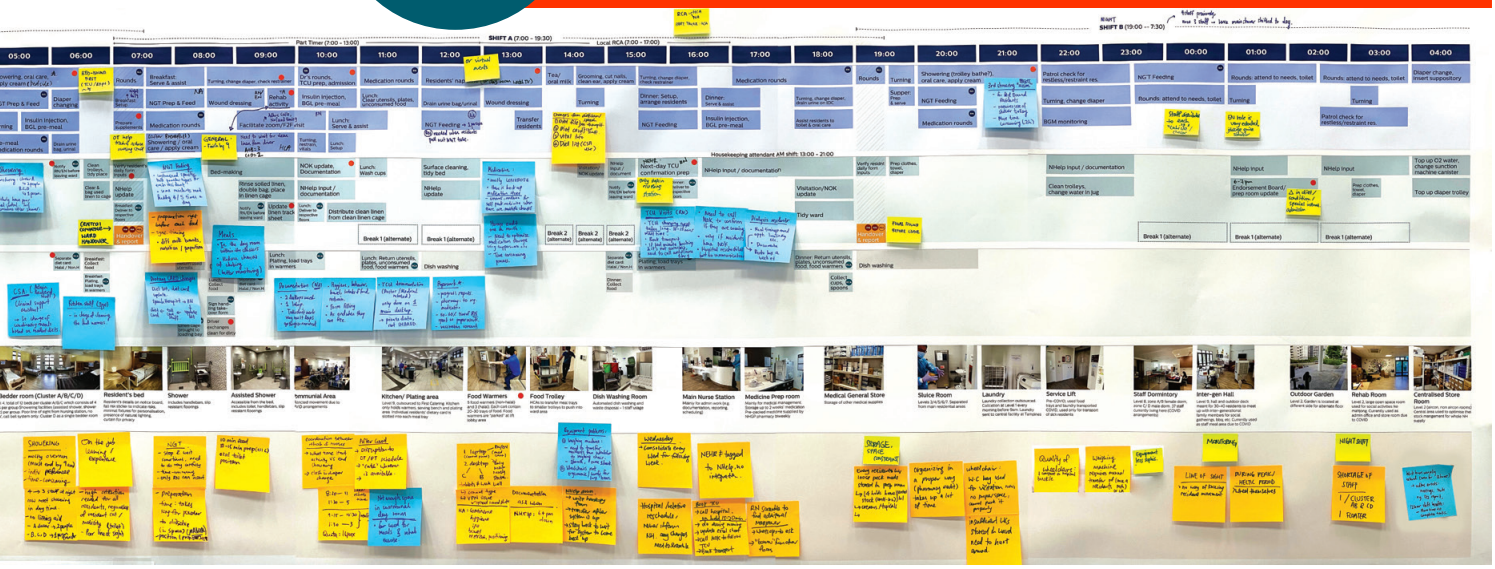
Refer to Additional Resources, Community Care Digital Transformation Plan and Funding Support under PDG for details.

Process looks at the organisation of a group of related activities that are put together to deliver value to the clients.

How **Process** impacts productivity

- Improved efficiency and speed with a series of structured steps
- Standardised process provides clarity on outcomes and how to achieve them
- Processes simplify workflows and ensure repeatable and predictable outcomes

What are the processes and measurement indicators currently used to measure productivity in your organisation?



Client **Profile** looks at client characteristics such as age, gender and usage patterns, to guide products/services to be delivered.

How Client **Profile** impacts productivity

- The proportion of ambulant and bed-bound residents varies across NHs
- As individuals from each category have different needs, the intensity and frequency of the care they require also varies

How does your resident mix affect staffing and the level of services provided, including quality of care for your residents?

4

Putting Insights Into Practice

4 Putting insights into practice

Through this study, Philips also provided insights based on their observations with participating NHs. These insights serve as useful considerations for an organisation looking to rethink and improve productivity.

Good practices observed from this study and successful improvement projects implemented in NHs are included in this segment.

Insight 1 **Process optimisation before automation**

Insight 2 **Effective technology implementation**

Insight 3 **Coordination and communication**

Insight 4 **Cohorting residents**

Insight 5 **Better use of care staff time**

Insight 6 **Effective rostering**

Insight #1

Process Optimisation Before Automation

If an organisation continuously finds ways to improve their processes, staff and residents will achieve significant improvements. – *SWIfT Study*

Prioritise optimising processes to remove redundancies and streamline workflows before implementing new technology or equipment.

Insight #1

Think about your own situation:

Process

- Map out the current processes and identify steps that can be streamlined or eliminated
- Gather feedback from users on the challenges and issues encountered during their work

Employee Capacity and Capability

- Form multi-disciplinary improvement teams to streamline existing processes
- Train staff in the use of structured improvement methodologies (e.g., Plan-Do-Study-Act (PDSA), value stream mapping, lean thinking, etc.). Refer to Additional Resources, Quality improvement initiatives for details.

Environment

- Understand existing limitations in the current setup and identify possible improvements

Equipment

- Identify suitable equipment or technology that will help to automate repetitive processes

Insight #1

CASE STUDY:
Deployment of Autonomous Mobile Robots (AMR) to Build Own Lease (BOL)/Non-BOL NHs
by St. Andrew's Nursing Home (Queenstown)

Aim:

Meal and laundry delivery processes were identified as potential areas for improvement through automation as they were time-consuming and labour-intensive. By automating these processes, the reduced time and physical labour required to complete the tasks will allow care staff to have more time to focus on caring for the residents.

What was done:

- Efforts were made to reduce the turnaround time for each process before the implementation of AMR (e.g., discussions were held with the relevant vendor and department to improve on tasks that are physically demanding)
- Staff were also cross-trained so that such tasks could be rotated

Staff transporting food using heavy trolley

Staff transferring clean linen to laundry for distribution

(Note: Laundry staff are internal staff, kitchen staff for meal delivery are outsourced.)

Insight #1

- The challenges for each task were analysed by:
  - Verifying existing practices on the ground
  - Determining the deliveries made throughout the day and identifying critical times when the deliveries needed to happen, such as meal times
  - Identifying existing delivery paths for such activities
  - Understanding the optimum turnaround time required to improve productivity with efforts taken through scheduling and optimising labour

Outcomes

- Staff can now spend more time on care-related tasks, rather than on tasks which are time-consuming and can be automated
- A safer working environment for staff, with less exposure to heavy load-bearing duties
- Minimising human cross-interaction (especially during times of disease outbreak)

Projected outcomes of AMR implementation

- AMR can free up 192 man minutes per day by automating meal deliveries of lunch and dinner
- AMR can free up 176 man minutes per day by automating laundry delivery

AMR to lift and transport trolley containing meals, laundry or consumables

“It is important to optimise processes — if not, manpower savings may not be realised. Before implementing AMR, we needed to reduce or eliminate the challenges faced by our staff for each task, then we could streamline the entire work process in tandem with the usage of AMR.”

Mr. Derrick Ng, Operations Manager,
St. Andrew’s Nursing Home (Queenstown)

Insight #2

Effective Technology Implementation

If users (staff and residents) are involved in the evaluation of the technology or equipment during pilot testing as part of an effective change management plan, there will be greater acceptance and adoption of the technology. – *SWIfT Study*

Establish an effective evaluation and change management strategy before implementing any new technology or equipment.

Insight #2

Think about your own situation:

Ethos

- Establish an evaluation committee to assess the suitability and effectiveness of the technology or equipment by considering the impact to costs, infrastructure, residents and staff
- Produce clear communications plans to engage stakeholders and users on the change
- Conduct Value-Based Assessment to support decisions in implementing solutions. Refer to Additional Resources for details.

Employee Capacity and Capability/Client Profile

- Involve staff in the evaluation of the technology or equipment which will affect their work
- Provide training for staff on the use of the new technology or equipment
- Seek staff input on the technology in relation to its relative benefits, ease of use, and whether/how it is compatible with their norms, values and needs

Environment

- Consider the physical location of the equipment in relation to the organisation's layout and infrastructure
- Consider compatibility of identified technology to interface with existing and future systems

Client Profile

- Address residents' fears by giving them time to familiarise and adapt to the new technology or equipment

Insight #2

CASE STUDY:
Development of a structured new technology adoption process
by Kwong Wai Shiu Hospital

Aim:
Develop a new technology adoption workflow process to improve productivity of staff and care quality at nursing home.

What was done:

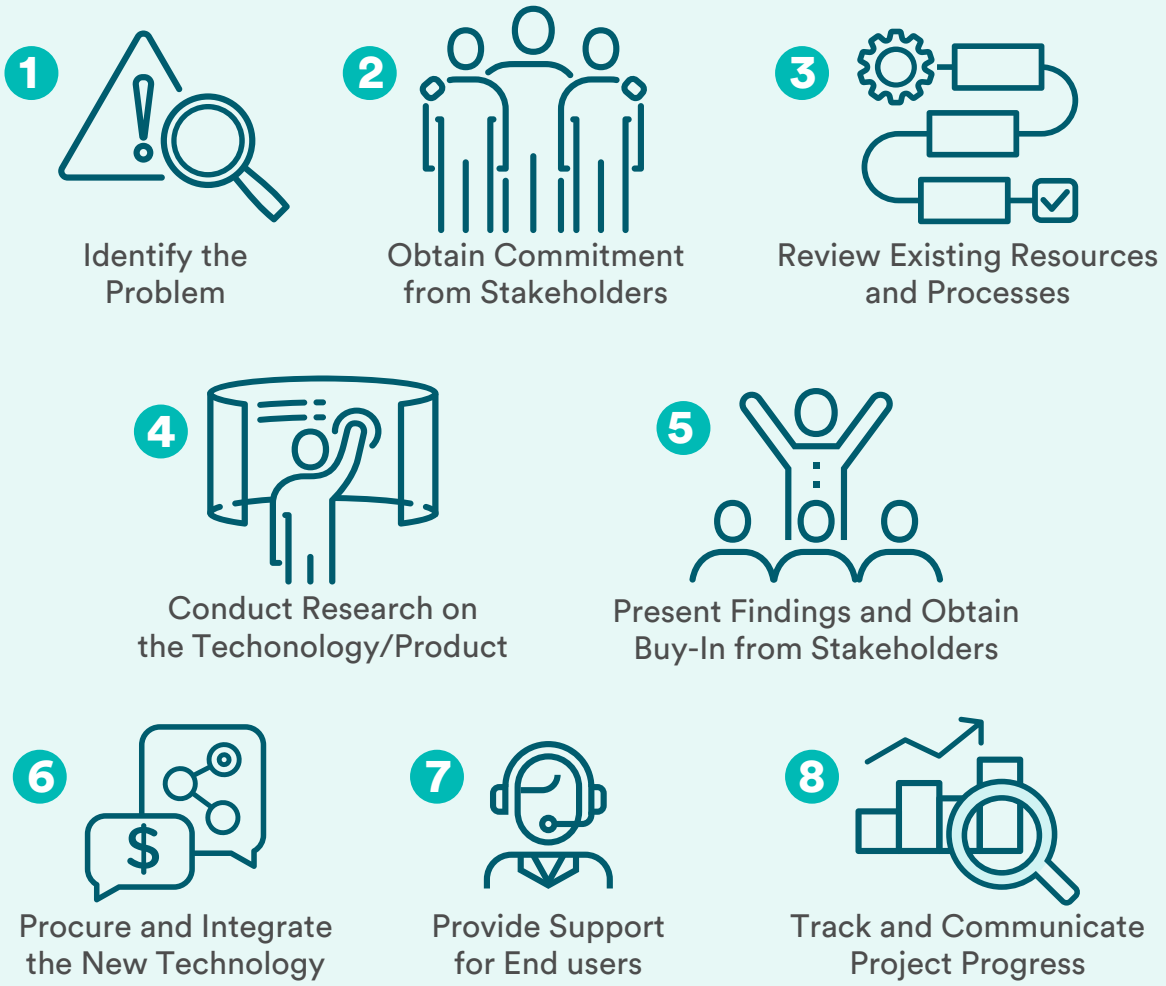
- A framework with four stages (Diagnosis – Planning – Implementation – Evaluation) was developed to guide project teams in implementing new technologies. See Figure 1: New Technology Adoption Process Framework
- The responsibilities of project roles were defined and documented for clarity
- The projects were managed using the PDSA approach, which involved understanding challenges and identifying needs, engaging stakeholders and conducting gap analysis, collecting ideas and trials, tracking progress, and providing regular updates to stakeholders
- End users were involved from the beginning of the improvement project to gather ideas and ensure buy-in
- An economic evaluation was conducted before implementing new technology

Outcomes

- A structured and clearer evaluation process was established
- Better engagement with stakeholders and end users resulted in higher staff/ resident acceptance after implementing the technology

Insight #2

Figure 1: **New Technology Adoption Process Framework**



"An optimal technology adoption process helped Kwong Wai Shiu Hospital adapt to evolving technologies that elevated efficiency, build robust workflows and reduce overall costs. Through improved patient safety and care and better hospital performance, client satisfaction is enhanced."

Dr Mok Ying Jang, Chief Executive Officer,
Kwong Wai Shiu Hospital

Insight #3

Coordination and Communication

If there are established protocols between the nursing and operations departments on the work processes, incidences of staff doing rework or extra steps can be prevented, thus improving staff efficiency. – *SWIfT Study*

Establish efficient interdepartmental coordination and communication to optimise workflows within the organisation.

Insight #3

Think about your own situation:

Process

- Form multi-disciplinary teams to map out dependencies between departments
- Establish regular meetings between departments to discuss issues and rationalise work processes
- Establish service level agreements with external vendors to ensure quality and timely service that meet organisation requirements

Ethos

- Create common goals and shared metrics for departments to collaborate and work together
- Establish clear protocols between departments for clarity in workflow

Equipment

- Consider use of shared information systems such as Electronic Meal Ordering System (EMOS) or inventory management systems to enable information flow between departments
- Leverage on robotics such as AMRs for collection and delivery of linens or consumables to reduce variability in collection or delivery schedule

Insight #4

Cohorting Residents

If we cohort the residents by their care needs, then excessive staff movement will be reduced. Residents can then be better supervised, with mitigation of fall risk. – *SWIfT Study*

Cohort residents based on their clinical conditions to optimise staff time and reduce physical movement.

Insight #4

Think about your own situation:

Client Profile

- Understand existing residents' profiles and explore cohorting residents beyond mobility factors such as by residents' social behaviours, ability to feed and types of diets, care needs and fall risks

Equipment

- Equip the ward with the relevant equipment such as ceiling hoists to support cohorting

Environment

- Provide dedicated parking spaces for large, mobile equipment to reduce physical congestion
- Assess and ensure that the infrastructure can support equipment transferral before implementation

Insight #4

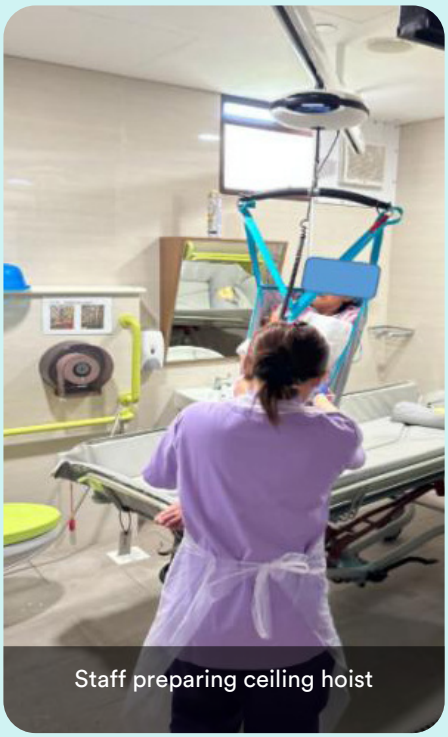
CASE STUDY:
Improving efficiency in multiple processes influenced by resident profile
by St. Andrew's Nursing Home (Taman Jurong)

Aim:

To improve productivity for processes influenced by resident needs through cohorting and technology adoption.

What was done:

- A pilot was set up to cohort residents into 'high care needs' and 'high fall risk' categories
- Criteria for 'high care needs' residents included weight, bed-bound status and Nasogastric Tube Feeding (NGT) needs
- Assistive technology was used for residents with 'high care needs' (e.g., ceiling hoists for the transfer of bed-bound residents for showering, NGT holders for safe and concurrent feeding)



Staff preparing ceiling hoist

Staff using ceiling hoist for safe transfer of bed-bound resident

Insight #4

Outcomes

- Reduced overall time and effort for targeted monitoring of residents who require more attention
- Freed up time for staff breaks and documentation
- Facilitated installation and utilisation of suitable assistive technology to improve staff ergonomics
- Improved safety and care quality for residents
- Reduction in transfer and travel time for commode showers from an estimated 1h 4 min to 1h 1 min
- Reduction in staff travel time to patient's bedside for NGT feeding from an estimated 54 min to 48 min 36s

"We don't have back pain when using the ceiling hoist because there's no need for us to use more strength. It is easy for us to shift residents or transfer them using the hoist compared to the bath trolley. Our residents feel comfortable and with the ceiling hoist, it's also safer for them."

Ms May Thin, Health Care Assistant,
St. Andrew's Nursing Home (Taman Jurong)

Insight #5

Better Use of Care Staff Time

If job roles are defined clearly, then care staff can utilise more of their skillsets focusing on direct care and quality programmes for residents, rather than performing non-nursing tasks.
– *SWIfT Study*

Minimise care staff time spent on non-direct care tasks to increase the amount of time available for direct care activities.

Insight #5

Think about your own situation:

Equipment

- Automate routine tasks such as food preparation and delivery to reduce care staff workload, freeing their time to focus on other aspects of the meal service and improving residents' dining experiences
- Consider the use of robotics to support manual and laborious tasks
- Adopt a rostering system to schedule staff and plan task allocation

  Refer to Additional Resources, Community Care Digital Transformation Plan and Funding Support under PDG for details.

Ethos

- Establish career progression pathways and training programmes to motivate job excellence and care quality

Employee Capacity and Capability

- Allocate tasks based on staff capability and capacity
- Define job responsibilities between care and operations staff
- Establish clear protocols for overlapping work

Insight #5

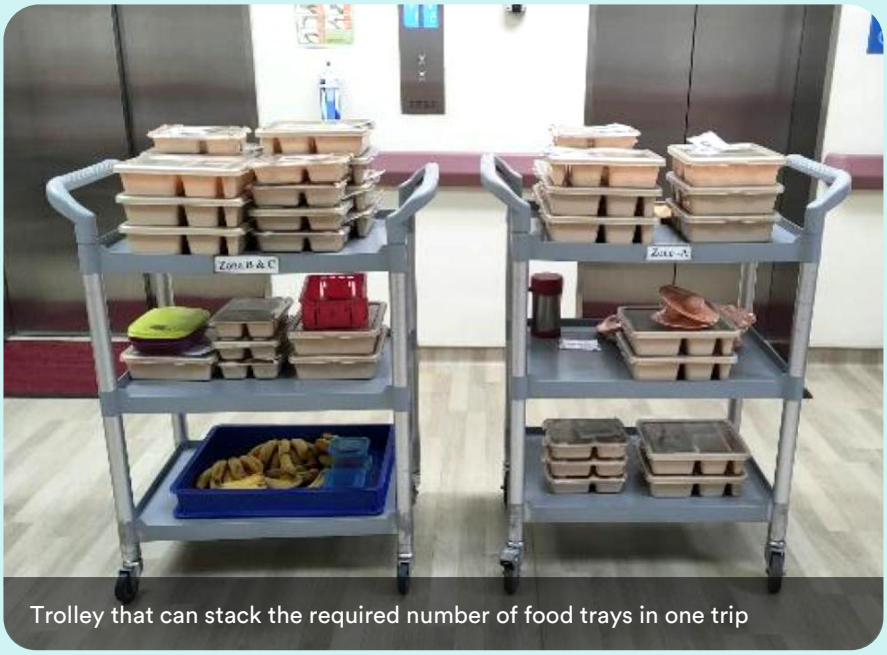
CASE STUDY:
Reducing time taken during the meal service process
by The Lentor Residence

Aim:

To reduce the time needed for meal process-related activities such as collection, distribution, preparation, and cleaning.

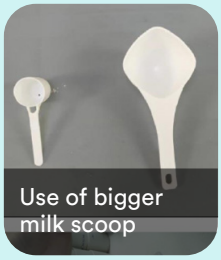
What was done:

- Introduced a single trip to transport food trays from kitchen to ward with a trolley that can stack the required number of food trays. As food is made fresh from an in-house kitchen, a bulky food warmer is not necessary.
- Implementation of order summary cards using International Dysphagia Diet Standardisation Initiative (IDDSI) colour codes to improve dishing and distribution times
- Designation of trolley storage near the kitchen to reduce motion waste such as additional steps of fetching
- Adoption of devices that assist meal preparation and post-meal cleaning, such as electric whisks for milk preparation and dishwashers



Trolley that can stack the required number of food trays in one trip

Use of electric whisks for milk preparation



Use of bigger milk scoop

Insight #5

Outcomes

- Removed intermediary reallocation steps or redistribution of food trays
- Saved an estimated 1.15 hours per day, as care staff no longer had to perform tasks such as transferring food and dishwashing, enabling them to have more engagement with residents during meal hours
- NGT feeding process was improved through the adoption of whisks for stirring and preparing large scoops for powdered milk

“Improved process flow and visual aids helped reduce errors and boosted team confidence. These time-saving measures allowed the team more time to focus on residents who need more attention.”

Thaw Thaw, Ward-In-Charge,
The Lentor Residence

Insight #6

Effective Rostering

If rostering considers factors such as resident, staff and organisational needs, it will mitigate staff variability and enable adequate manpower distribution throughout shifts.
– *SWIfT Study*

Use a systematic and analytical approach to create staff rosters to minimise fluctuations in staffing levels.

Insight #6

Think about your own situation:

Process

- Plan the roster in advance and allow time for swaps and changes
- Consider regulations and shift requirements, workloads and responsibilities before assigning staff
- Include factors such as residents' hospital appointments, staff training schedule and team dynamics when planning the roster

Employee Capacity and Capability

- Consider staff availability and skills when rostering
- Ensure staff are rostered fairly while providing appropriate flexibility in meeting staffing needs

Ethos

- Ensure a governance structure is in place to oversee roster planning, monitoring and approval
- Identify and cross-train staff to allow cross deployment during peak periods of the day

Equipment

- Invest in suitable rostering software for more effective planning

Summary Insights

#1 Process Optimisation Before Automation

Prioritise optimisation of processes to remove redundancies and streamline workflows before implementing new technology or equipment.

#2 Effective Technology Implementation

Establish an effective evaluation and change management strategy before implementing any new technology or equipment.

#3 Coordination and Communication

Establish efficient interdepartmental coordination and communication to optimise workflows within the organisation.

#4 Cohorting Residents

Cohort residents based on clinical conditions to optimise staff time and reduce physical movement.

#5 Better Use of Care Staff Time

Minimise care staff time spent on non-direct care tasks to increase the amount of time available for direct care activities.

#6 Effective Rostering

Use a systematic and analytical approach to create staff rosters to minimise fluctuations in staffing levels.

5 Additional Resources

5

Additional Resources

- Value-Based Assessment Model and Tool
- Community Care Digital Transformation Plan
- Autonomous Mobile Robot Guidelines
- Quality Improvement Initiatives

Value-Based Assessment Model

The Value-Based Assessment (VBA) model is a comprehensive tool developed by Philips Singapore to help organisations make informed investment decisions. Unlike traditional Return on Investment (ROI) assessments that focus solely on financial gains, the VBA takes into account both qualitative and quantitative factors, including costs, productivity gains, and benefits for staff and residents.

This holistic approach ensures that solutions adopted not only improve productivity, but also enhance patient and staff experiences, leading to better overall outcomes. By using the VBA, organisations can make well-informed decisions about investing in process changes, facility upgrades, new programmes, and technology that align with their values and goals.

The VBA model has **four elements**:

- The **value parameters** and definitions (now aligned to NH nomenclature and the Enhanced Nursing Home Standards (ENHS), including descriptive degree of improvement)
- A **scoring mechanism**
- A **proxy value or weighting** to then assess against or with a traditional quantitative improvement opportunity
- A **benefit assessment output** that includes both a traditional cost benefit and numeric benefit of the qualitative value

Value Parameters in VBA		
Benefits to Residents	**Benefits to Staff**	**Long-Term Cost Benefits and Productivity**
• Enhanced Care Outcomes (Safe, Effective) • Emotional Improvement (Person-centred, Effective) • Proportion of residents that will benefit (Effective, Person-centred, Accessible)	• Ergonomic Improvement (Sustainable, Effective) • Enhanced Satisfaction (Effective) • Ease of Operation (Sustainable, Accessible) • Ease of Implementation (Accessible)	• Productivity Index • Cost Benefit Index

NH considers if a project/piece of equipment is worthwhile to proceed with or supply funding support for

Quantitative Assessment

NH to calculate potential cost savings and productivity gain

- x <-10% No go → Consider alternatives and/or a more cost-effective solution
- -10% ≤ x ≤ 10% Go/No go decision → Proceed to VBA (refer to template)
- x >10% Go → Proceed with solution

Qualitative Assessment

Answer and score VBA value parameter questions to obtain a VBA score (y)

- y <40 No-go → Look for alternative and/or more cost-effective solutions
- 40 ≤ y ≤ 50 Go/No-go decision → Look for alternative and/or more cost-effective solutions → Run the alternative solutions through the VBA framework
- y ≥ 51 Go → Proceed with solution → Develop implementation plan and pilot

Compare and contrast with alternative solutions. Proceed with go/no-go decision

Community Care Digital Transformation Plan

The Community Care Digital Transformation Plan (CCDTP) aims to accelerate digitalisation efforts in the Community Care sector, with the goal of providing better care and support for clients and their caregivers in the community. By leveraging technology within CCOs, the CCDTP also aims to increase productivity and job satisfaction while delivering timely, affordable, and quality care for Singaporeans through a digitally-driven sector.

The CCDTP provides a structured and targeted approach to support CCOs in their digitalisation journey, focusing on the following strategies:

- Digitalisation journey map
- Business process re-engineering
- Technology adoption
- Data-driven and capability uplift

The Sector Digitalisation Roadmap is a three-level guide that enables CCOs to adopt proven technology, build digital capabilities, and leverage resources to enhance their organisational effectiveness and service delivery.

Download the CCDTP eBook here.

Funding Support Under the PDG

CCOs can apply for the PDG to help cover the expenses of implementing technology solutions as part of their digital transformation. The PDG includes two components, 'Uplift Digital' and 'Accelerate Digital', which can support up to 85% of the approved project costs.

Productivity and Digitalisation Grant
PDG

Accelerate Digital

Green Lane
- Funds proven pre-assessed solutions and equipment
- Up to 85% of approved project costs comprising of CAPEX and 1st year OPEX, funding capped between $30,000 to $150,000 per project

Non-Green Lane
- Funds proven non-assessed and unproven solutions and equipment

Proven non-assessed
- Up to 85% of approved project costs comprising of CAPEX and 1st year OPEX, funding capped at $150,000 per project

Unproven
- Up to 85% of approved project costs comprising of CAPEX and 1st year OPEX, funding capped at $300,000 per project

Uplift Digital

End User Computing
- Funds user equipment such as laptops and tablets including used licenses such as Microsoft Office licenses
- One-time funding of 85% of $2,675 per device

IT Network
- Funds upgrading/extension of IT network equipment, setting up of a local area network, setting up of wireless networks, network licenses, data storage or backup solutions, and patch cabling works
- One-time funding of up to 85% of approved project cost, funding cap at $60,000 per Nursing Home and $30,000 per Senior Care Centre/ Eldercare Centre

Cybersecurity Solution
- Funds equipment and solutions for firewall, log monitoring, patching solutions, e-mail security, data loss prevention (DLP), endpoint detection and response (EDR) and master data management (MDM)
- One-time funding of up to 85% of approved project cost, funding capped between $30,000 to $60,000 per organisation, depending on the type of package

Grant Application Process

Applications are accepted throughout the year on OurSG Grants Portal (OSG).

Interested applicants are strongly encouraged to approach their AIC Account Manager or CCDTP Engagement Team at ccdtp@aic.sg.

Autonomous Mobile Robot Guidelines

The Community Care sector is exploring the use of technology to assist with mundane and routine tasks that consume staffing resources. One example is the multiple deliveries of food and laundry throughout the day in NHs. To address this, the sector has taken steps in automating the process through the use of Automated Guided Vehicles (AGVs) and upgraded versions called AMRs in existing NHs.

To guide the sector in implementing AMRs in existing NHs, AIC has partnered four Community Care organisations to develop an implementation framework. This guide covers topics such as process optimisation, infrastructure provisions, trolley considerations, computation of productivity and ROI.

By using this guide, organisations can assess the suitability of AMR implementation and use it as a framework for discussion with possible AMR vendors.

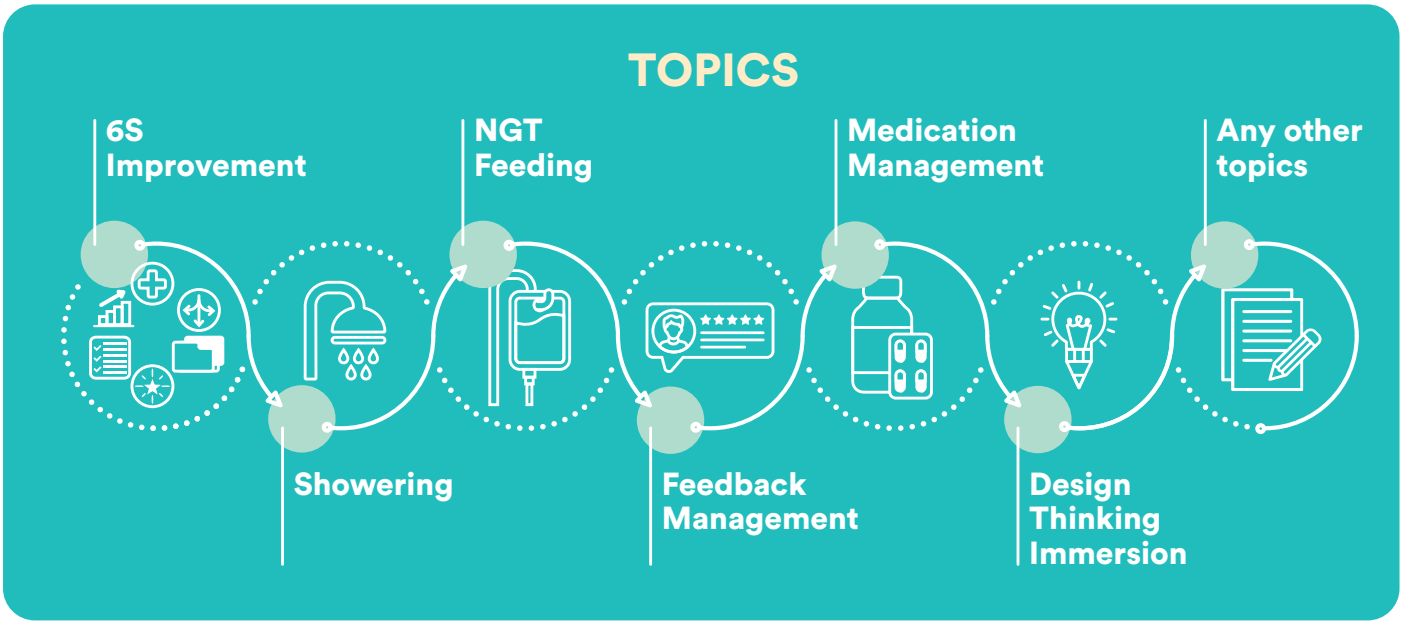
Refer to the AMR Guidelines for more information here.

Quality Improvement Initiatives

Quality Improvement Workshops

AIC facilitates an immersive project-cum-workshop for Community Care organisations to improve one or more quality of care domains such as safety, client-centeredness, process efficiency, accessible care, and sustainability. The workshop aims to empower organisations with the knowledge and skills to make significant improvements in their care delivery and enhance the overall experience of their clients.

To learn more, please click here or contact AIC's Quality & Productivity Division at quality@aic.sg



Quality Improvement e-Learning Modules

QI Tools online e-Learning courses are available via the AIC Learning Network portal.

Click here and select 'AIC Quality & Productivity Division (QPD)' under 'All Learning Institutes'.

Start by logging in with own SingPass and browse the course catalogue.

For details on account creation, please approach your appointed CCO Administrators for more details.

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Contact Us

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