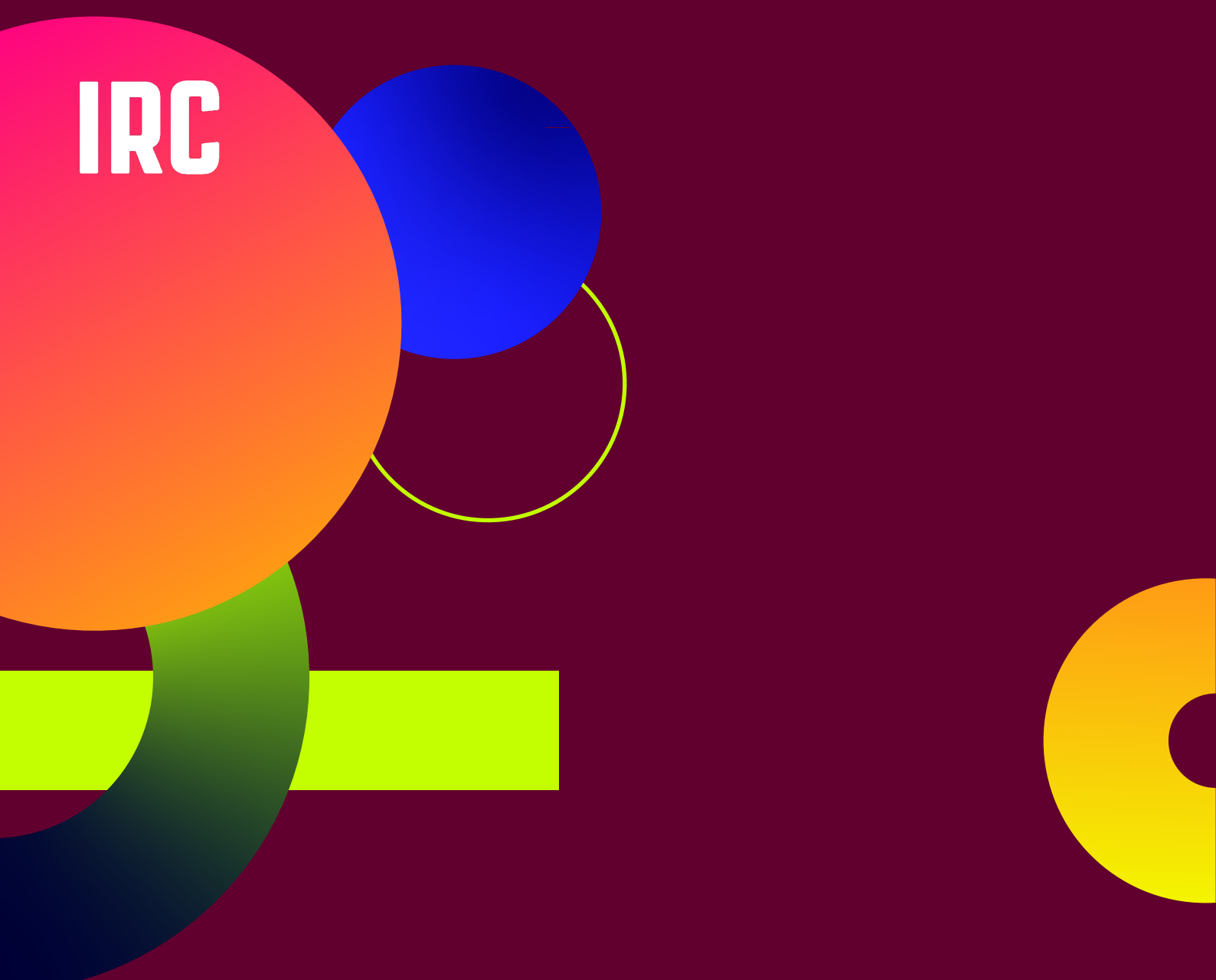




IRC

SHIFT THE SYSTEM MAPPING

See what's stuck
Shift what matters

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Find out more:

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Introduction

Understanding systems is a critical starting point for meaningful, lasting change. Whether working on water, education, or climate resilience, systems leaders need tools that help make complexity visible, reveal patterns of interaction, and uncover opportunities for action. The Shift the System mapping methodology offers a practical way to move from “what’s going on” to “what could be”, guiding users to identify leverage points, envision alternatives, and support collective action.

This method draws on systems thinking and leadership practice from IRC and those who have inspired us over the years. It is informed by Donella Meadows’ hierarchy of leverage points (Meadows, 1999), Peter Senge’s work on systems awareness and mental models (Senge, 1999), and soft systems approaches pioneered by Checkland (1999). It also builds on applied tools such as causal loop diagramming, influence mapping, and systems mapping frameworks developed by NPC (Pritchett et al., 2020), Equal Measure (Wilkinson, 2020), and others working at the interface of social impact and systemic change.

What makes IRC’s approach distinct is its grounding in decades of experience strengthening public service systems in the majority world. The method integrates six key “aha” moments—insightful shifts in perspective often experienced by systems leaders—into a structured mapping process (IRC, 2024). It supports both technical analysis and relational insight, helping users move from understanding the current system to imagining a better

one. While the method can stand alone, it is most powerful when embedded in a broader journey of systems leadership—one that blends mapping with reflection, dialogue, and a commitment to shifting relationships, reframing narratives, and building the collective power needed for transformation.

The Shift the System methodology uses a cluster approach to visually represent the components and interactions within a system, just using a pen and paper. This methodology is a blend of problem-focused and outcome (vision)-focused mapping methodologies.

We recommend exploring this methodology by taking our **WASH Systems Academy’s Systems Leadership: The basics** course.

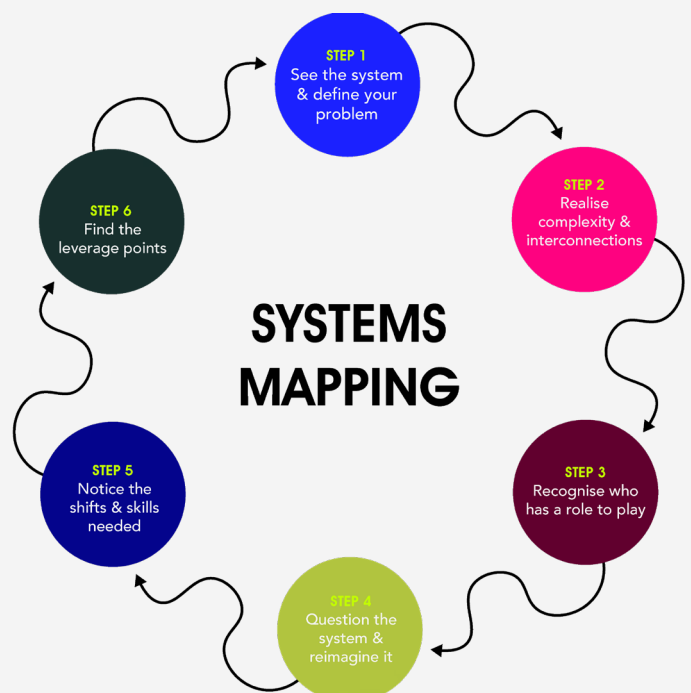


Figure: The six steps to systems mapping

Step 1: See the system and define your problem (current state)

WHAT'S GOING ON?

Define the problem at the centre of the system as it currently exists. You will need to pick one problem that is specific enough and reflects the core of what you are trying to solve. You may need to make multiple maps for different problems.

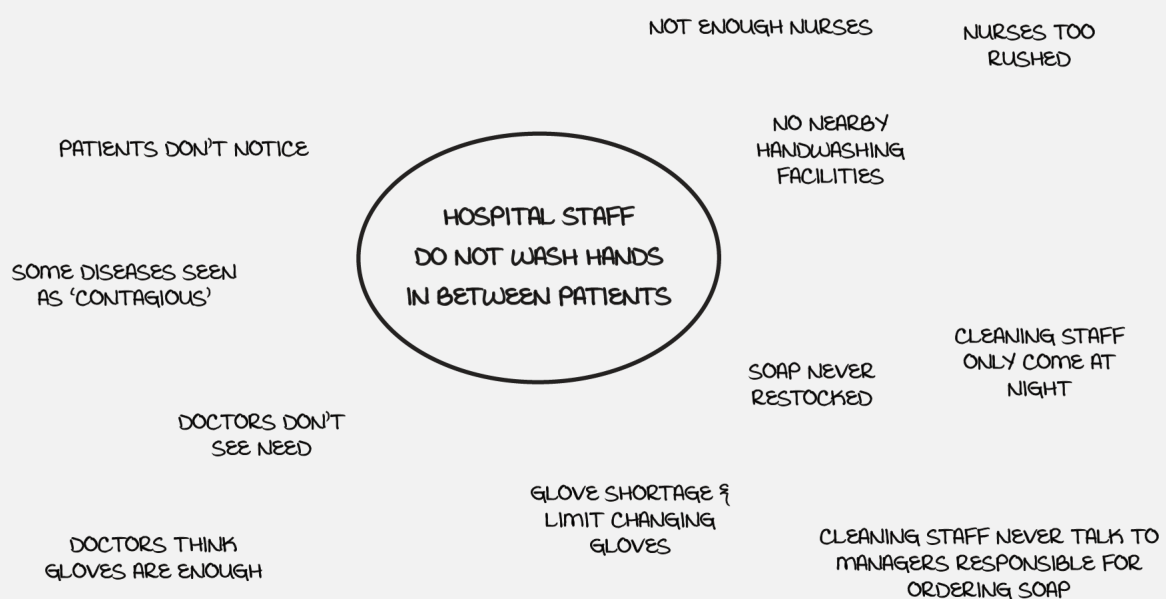
1.1 Write this down in the centre of the paper and draw a circle around it. For example, this could be poor school attendance, inadequate handwashing practices at home, agricultural insecurity or crop failure. We strongly encourage the use of pen and paper for a first draft, but you could alternatively use a digital drawing tool like Miro, PowerPoint, or even dedicated systems mapping software like Vensim or Microsoft Lucidchart.

1.2 Identify key elements: List all the key components of the system relevant for the problem or desired outcome you have stated. These could be people, processes, resources, behaviours or any other elements that play a role in the system. They might be actors/institutions, policies, or narratives and commonly held ways of thinking.

Don't try to make it perfect, just write down the elements that come to mind using the words and ideas that come to mind. This type of map is also called a "brain dump" map, it will get messy.



See the system & define your problem



Step 2: Realise the complexity and interconnectedness

WHY IS THIS HARD TO CHANGE?

Identify how these elements interact with each other.

2.1 Draw arrows, lines, or squiggles to represent the relationships and interactions. You can use different colours to show different 'flows' and relationships, such as 'power,' 'control,' 'influence,' etc.

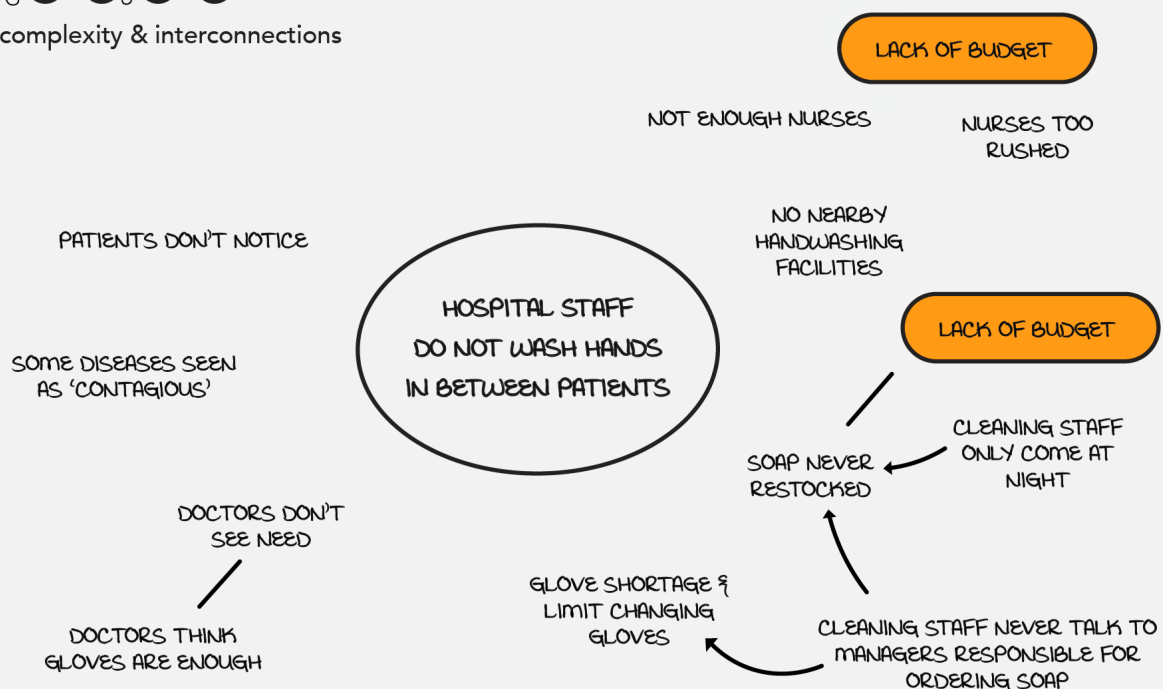
2.2 (optional) Identify feedback loops and indicate causality. Look for cause-and-effect relationships, feedback loops, and dependencies. Ask, 'Where does solving one problem cause another?' and 'Where are things stuck — and why?' Try asking 'why' five times, to keep probing deeper for root issues that may not come to mind right away.

If you are familiar with the idea of causality and causal loop diagramming, you can use pluses and minuses (+/-) to show where feedback between elements is positive (reinforcing) or negative (reducing). If this is not familiar to you, you can skip this step¹.

Remember, it will get messy. That is okay, as reality is also messy and complex.



Realise complexity & interconnections



¹ If you'd like to learn more in depth about causal loop diagramming and technical systems mapping, please get in touch with us.

Step 3: Recognise who has a role to play

WHO INFLUENCES CHANGE, WHO BLOCKS IT, AND WHO'S MISSING FROM THE PICTURE?

You will already have included many of the important stakeholders in your map. Look at the map again and ask yourself who is missing? Perhaps there are important actors that are not yet connected with the system, that could be a blind spot in your own thinking or a gap within the system itself.

3.1 Build out the actor landscape. List the people, groups, and institutions that shape the system — not only the obvious ones, but also those on the margins or in other sectors. Include formal and informal actors, from community members to government ministries to external funders. You can add them to the map or create a separate list.

3.2 Draw a 2x2 grid with Power on the horizontal axis and Interest on the vertical. Place each stakeholder in a quadrant based on how much influence they have over the system and how invested and interested they are in the issue. This helps you identify key players, potential allies, blockers, and those who may need to be engaged. Reflect on what this tells you :

- **Top-right** = the most powerful and interested actors (key allies, co-creators)

- **Bottom-right** = powerful but not currently engaged (influence them!)
- **Top-left** = interested but with less power (mobilise and support them)
- **Bottom-left** = less relevant now, but keep an eye on

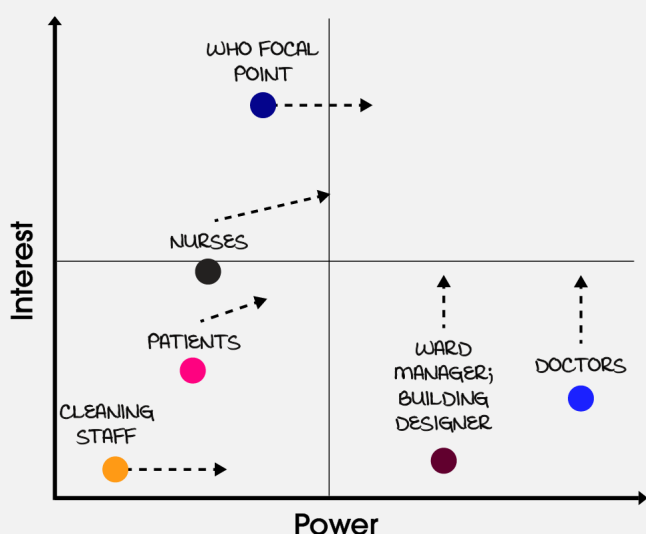
Are there actors in the middle, that seem like they could fit in any of the quadrants?! These are important to pay attention to, because while they may not be interested yet, or have not started acting with their full power, they could become key influencers if engaged properly as part of a medium- or longer-term strategy.

Ask yourself:

- Who benefits from the current system?
- Who is being excluded from decisions?
- Who could be moved from their current position to the top right quadrant, and what would it take to do this?



Recognise who has a role to play



REFLECTION:

- Low stakeholder interest is a major challenge.
- Prioritise, find and build allies interested in handwashing by:
 - Connecting handwashing to existing interests (e.g., disease control, patient health).
 - Emphasising personal health protection and preventing illness at home.
- The WHO focal point is interested but lacks influence:
 - Consider empowering them or finding a more influential figure (e.g., head doctor).
- Doctors hold ward power – they may be key initial allies.
- Engage hospital architects for long-term impact (affects future buildings/renovations).

Step 4: Question the traditional view of the system and reimagine what could be

WHAT IF THE SYSTEM ISN'T BROKEN, BUT DESIGNED THIS WAY? WHAT COULD A BETTER SYSTEM LOOK LIKE?

Step back from the current map and ask:

- What assumptions have shaped our approach to this issue?
- What patterns or power structures are keeping the system stuck?
- What if we stopped trying to “fix” parts — and instead designed something entirely different?

4.1 Now, take a fresh piece of paper redraw the system — not as it is, but as you want it to be. Start with a bold vision at the centre (e.g. “100% school attendance for children ages 6-18” or “handwashing is practised at key moments in every home”), and add the elements, relationships, and dynamics that would exist if this system truly worked for everyone.

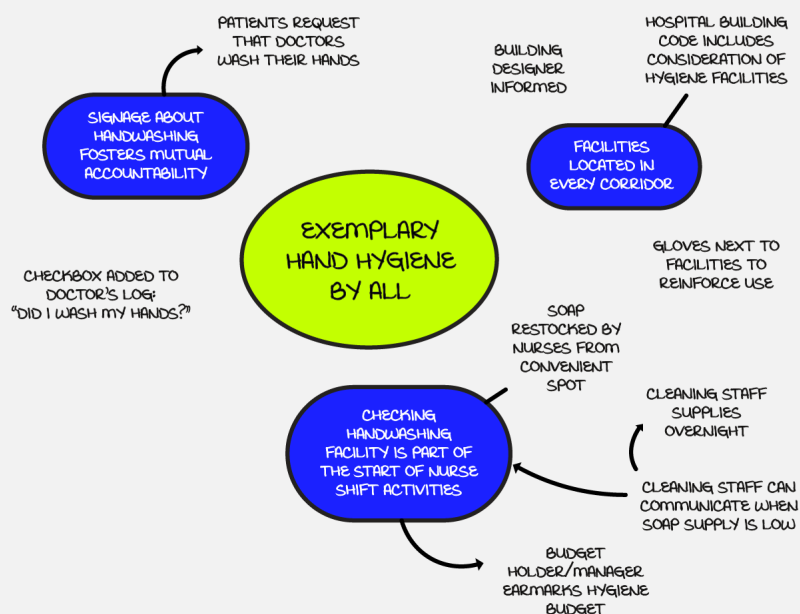
Don't worry about perfection — this is a creative and exploratory act. Let new ideas surface, even if they seem far fetched for now. Systems leaders are not afraid to dream.

4.2 Reflect on your new map. Where are their leaps of faith? Which of the stakeholders you mapped earlier will have a role in the new system, and what will that role be? Remember this is a creative and imagination-driven exercise.

Reflect on your role: have you drawn yourself and your organisation into the map? Why or why not? What is your future role?



Question the system & reimagine it



NOTES:

- Blue boxes show intervention areas
- Vision is in the centre
- Elements needed to support a functioning systems mapped

Step 5: Notice the skills and shifts needed to get there

WHAT WILL IT TAKE — IN OURSELVES, IN OTHERS, AND IN THE SYSTEM — TO MAKE THIS FUTURE REAL?

5.1 Look at your maps side by side. Reflect on the gap between the current system and desired future map. Study the gaps — not just in policies or actors, but in relationships, power, narratives, and behaviours.

Then pause and ask:

- What are the main differences between the maps, and what changes are needed to move from the current to the future system?
- What needs to be stopped, challenged, or rethought to make room for change?
- What needs to grow or be created, who needs to come into the system?

5.2 Take note of what fundamental changes need to take place.

Reflect on what would need to shift to get from the current system dynamics towards the new one that is producing the desired results?

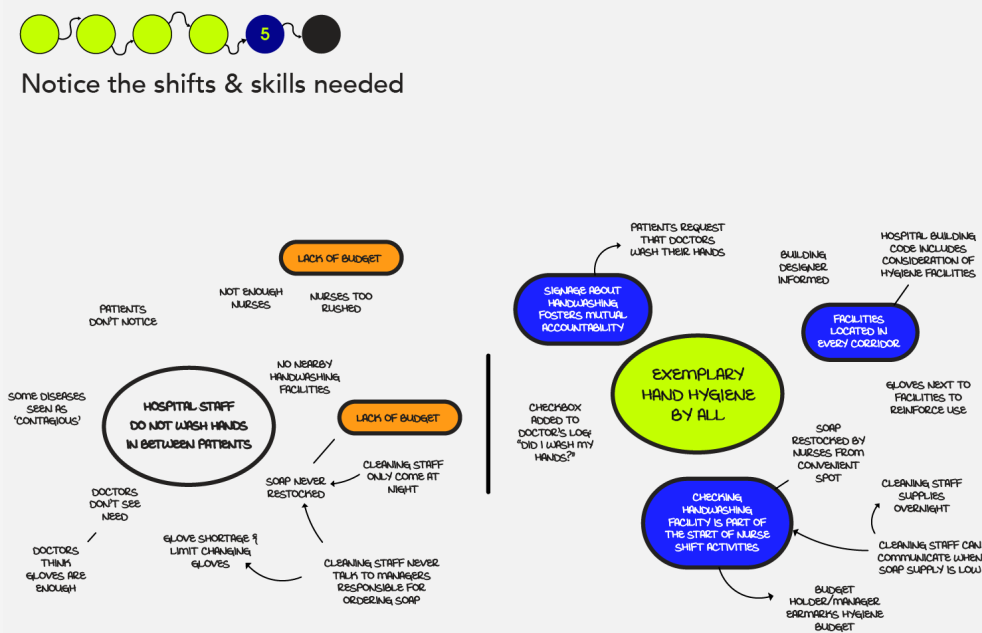
- What skills and behaviours are missing in the current system?
- What new capacities are needed to make the future system possible — in ourselves, our partners, and our organisations?
- Where do we see gaps in trust, accountability, learning, or courage?

5.3 Now take a moment to reflect personally.

- What do you personally see as the most important changes that need to take place to achieve this systems transformation?
 - What kind of leadership and collaboration does this transition require? Who needs to come together, and how can we support their learning or empowerment?
 - What is one way you need to show up differently as a system leader?
- It could be about how you facilitate conversations, surface difficult topics, share power, take risks, or listen across boundaries.

These insights begin to form your own personal theory of change as a leader, your own vision and understanding of how you believe that change will happen. It is not meant to serve as a linear plan, but rather this theory, this conceptual viewpoint, becomes part of how you think, learn, and lead, in service of the system you want to build.

As a systems leader, having a personal, living, evolving understanding Theory of Change and vision for **how change can be intentionally fostered** in complex systems is a crucial complement to the formal theory of change you may be using as an organisation or in a project.



CHANGES NEEDED:

- Hospital staff need to feel they have a stake in improving hygiene and see keeping their hands clean as a key part of doing their job.
- Small interventions that can help (signage, training, checklists), but requires a shift in culture and attitude. Appeal to and focus on triggering emotions and feelings - to build accountability.
- Build a feeling of empowerment, such as giving cleaning staff the responsibility to raise the alarm if soap runs out.
- Involving patients could also work, if done carefully and meaningfully. In the end they are the service users and the ones being cared for.

Step 6: Find the leverage points

WHERE CAN WE ACT, AND HOW DO WE LEAD?

Changing systems is a lot about finding the right leverage points, places or moments where a shift can trigger a cascade of bigger changes. Levers are tools and force multipliers that help us create greater impact by implementing activities with a strategic intention to bring about transformative change.

Looking again at your two systems maps side by side, ask yourself:

- Where are the leverage points — technical, structural, political, cultural, or at mindset-level? Are there some shallow and easy to address points, as well as deep changes to aim for?

Some leverage points are closer to the surface and easier to see (shallow), whereas others are much deeper and harder to pin point. Both types of leverage points are useful to identify, however the greater the transformation needed in your system (i.e. the gap between the current situation and your goal), the more likely it is that you need to work on deeper leverage points in order to trigger the desired change.

Shallow leverage points tend to focus on parameters like materials, incentive structures, and policies, or they may go deeper in trying to disrupt or change feedback loops and system dynamics. Deeper leverage points tend to focus on changing where power resides with the system

and how it flows between stakeholders, or on the design, goal, and overall intentions within the system. These often require understanding and shifting mindsets to bring about new paradigms.

Look at your map. Does it include elements that touch on these different levels? Can you see where some potential leverage points lie?

- Where are you already acting?
- Where might you be missing the deeper leverage points?
- What kind of leadership is required at each level?
- Considering the current timing and context, what would be the most opportunist to try now? What opportunities might arise in the future? Consider the importance of timing your efforts to maximise the impact of any interventions.

These prompts may inspire you to want to go back and adapt or add to your map. This is perfectly fine, and reflects that you are already starting to think differently as a systems leader.

If you have identified some leverage points, use the table below to document them. This may serve as an internal note, or could be brought to strategic and planning discussions with colleagues and collaborators.



Find the levers

Possible leverage point	Level /depth	Key considerations for timing	Leadership and capacity requirements to intervene at that leverage point effectively
ADD HANDWASHING FACILITY GUIDANCE TO BUILDING CODE	SHALLOW/ INTERMEDIATE	LONG TERM BUT IMPORTANT TO GET IT RIGHT VIA TESTING	REQUIRES ENGAGING WITH ARCHITECTS/ENGINEER UNION, NEW STAKEHOLDER GROUP.
CREATE MECHANISM FOR COMMUNICATION BTWN CLEANING STAFF AND THOSE WHO ORDER SUPPLIES	INTERMEDIATE	COULD WORK RIGHT AWAY	REQUIRES CLOSE ENGAGEMENT WITH ALL SO ITS ACTUALLY USED AND VALUED. LEARN FROM ANY PREVIOUS ATTEMPTS.
INCENTIVISE NURSES TO REFRESH HANDWASHING SUPPLIES AT START OF SHIFT	INTERMEDIATE	WILL TAKE CONTINUED REINFORCEMENT TO BUILD THE HABIT	NEED TO WORK WITH NURSES TO CO-CREATE THIS OR ELSE IT WILL FEEL IMPOSED AND LIKE "EXTRA WORK". DO THIS TOGETHER WITH BUILDING INTEREST IN HAND HYGIENE.
INCREASE HYGIENE EDUCATION FOR MEDICAL PROFESSIONALS	STRUCTURAL	MEDIUM TERM— WILL AFFECT NEW PROFESSIONALS	ENSURE IT BUILDS INTEREST AND COMMITMENT; CONSIDER THE PRACTICAL BEHAVIOURS THAT SHOULD BE LEARNED, NOT JUST THE SCIENCE BEHIND IT.
earmark A MODEL HYGIENE BUDGET FOR EACH WARD FOR SOAP/SUPPLIES	STRUCTURAL	MORE RESEARCH NEEDED TO KNOW	CHECK WHAT OTHER PARTS OF THE BUDGET MIGHT SUFFER TO AVOID UNINTENDED CONSEQUENCES.
BUILD SHARED VIEW THAT HYGIENE IS FOUNDATIONAL RESPONSIBILITY	DEEP	COULD BE FAST, PERIODIC REINFORCEMENT NEEDED	CONSIDER WHO CAN HELP STIMULATE THIS— NOT ONLY FORMAL POSITION BUT WHO IS A LEADER WHO CAN INSPIRE/HELP DRIVE OTHERS. THINK OF THIS AS A BEHAVIOUR CHANGE INTERVENTION, NOT A SIMPLE TRAINING.
GET PATIENTS TO VALUE AND ASK FOR CLEAN HANDS (SUPPORTED BY SIGNS)	DEEP	INITIALLY FAST, BUT ALSO A LONG TERM CULTURE CHANGE	TEST AND ADAPT TO GET MESSAGING RIGHT, USE DATA INFORMED ADAPTATION TO BUILD THIS, WITHOUT CAUSING CONFLICT OR UPSETTING MEDICAL STAFF . LOOK FOR GLOBAL BEST PRACTICES.
ENCOURAGE MUTUAL ACCOUNTABILITY	DEEP	MUST BE CO-DESIGNED WITH STAKEHOLDERS (MEDIUM TERM) WITH LONG-TERM SUPPORT	CO-DESIGN WITH ALL INVOLVED TO CREATE SOMETHING THAT PEOPLE LIKE AND WANT TO USE, CAN DO THIS AS PART OF THE OVERALL WORK TO BUILD AND INCREASE INTEREST/COMMITMENT IN HYGIENE.

Possible leverage point	Level/ depth	Key considerations for timing	Leadership and capacity requirements to intervene at that leverage point effectively

Concluding remarks

The Shift the System mapping methodology uses a combination of problem-focused and outcome (vision)-focused mapping techniques. It is a tool for systems leaders to navigate complexity and identify limitations or assumptions in their own thinking, as an essential step for identifying strategic pathways for change. It includes a simple stakeholder power mapping exercise that can help identify potential allies or influencers in the system.

This methodology can be further explored by taking IRC's online Systems Leadership course. It is best followed in a group or cohort where participants can support each other in their reflections and learning, but it can also be taken individually.

For more information about this methodology and IRC's systems leadership support services, please visit www.systemsleadershipessay.com

References

Checkland, P. (1999). **Systems Thinking, Systems Practice** (2nd ed.). John Wiley & Sons.

IRC (2025) – or Moriarty et al, etc. The Systems Leadership: An interactive essay. www.systemsleadershipessay.com

Meadows, D. H. (1999). Leverage points: Places to intervene in a system. The Sustainability Institute. www.donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/

NPC (New Philanthropy Capital). (2020). Systems change: A guide to what it is and how to do it. Pritchett, L., Woodcraft, S., & Sharma, S. www.thinknpc.org/resource-hub/systems-change-a-guide-to-what-it-is-and-how-to-do-it/

Senge, P. M. (1990). The Fifth Discipline: The Art & Practice of the Learning Organization. Doubleday. www.e-education.psu.edu/geog468/sites/www.e-education.psu.edu/geog468/files/TheFifthDiscipline.pdf

Wilkinson, A. (2020). The 9 characteristics of effective systems leaders. Equal Measure. www.equalmeasure.org/toolsandframeworks-systems-leaders

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