LEARNING FROM EVERYDAY WORK IN HEALTHCARE:
LESSONS IN A TIME OF COVID

The COVID-19 pandemic has had one of the biggest effects on work-as-done in healthcare in recent memory. So what might we learn about work from the perspectives of frontline workers? *HindSight* editor-in-chief **Steven Shorrock** asked a variety of practitioners.

"Frontline workers are the solution to most problems"

During COVID19 I learned that the need for change is the only thing we can reliably predict about the future. Fortunately, frontline workers are the solution to most problems that will inevitably arise. They are the most valuable resource in healthcare, both for delivering the care and for designing how to do it. Locally, we have seen rapid, successful innovation of work practices through the marriage of simulation and human-centred design principles. Sadly, though the safety of our workforce is paramount, it has been threatened worldwide. We still haven't learned how to put humans at the centre of healthcare.

Chris Nickson, Intensivist, Australia @precordialthump

"The pandemic has required groups to leave their silos"

High trust relationships are critical to safety. Strong bonds within groups develop organically over time. This social capital has many advantages particularly during a crisis, but can have the unintended consequence of excluding others. The pandemic has required groups to leave their silos and to collaborate rapidly on high-stakes issues. I have learned that we need to call on those who have not previously routinely been included in healthcare teams – such as aerodynamic scientists and occupational hygienists – to keep workers and patients safe. Many of these experts are accessible on social media, primarily twitter, and have been generously sharing their expertise for the benefit of all.

Tanya Selak, Anaesthetist, Australia @GongGasGirl

"Team learning is needed"

Individual adaptations are necessary to cope with goal conflicts, but team learning is needed to maximise the impact and ensure the safety of such adaptations. In my GP practice, daily 'huddles' (short meetings) were used to discuss how we implemented rapidly changing guidance while coping with varying conditions (e.g., demand and capacity) and competing goals (e.g., reducing hospital admissions while maintaining patient safety). Huddles encouraged sharing of innovative practice and increased understanding of why decisions were made and how decisions affected other parts of the system. It also supported those making difficult decisions and ensured people did not drift into unsafe practices.

Duncan McNab, General Practitioner, Scotland @Duncansmcnab

"Diverse views were brought together"

The potential impacts of COVID-19 required a rapid reconfiguration of the intensive care unit. This required many different teams: ICU clinicians, infection control nurses, biomedical engineers, builders, ventilation engineers and quality improvement specialists. These diverse views were brought together for the complex, dynamic problems we faced. This work leaned heavily on the pre-existing relationships built up during a recent volcanic burns disaster. Additionally, the redesign of clinical work was based on four requirements: to be SAFE, SIMPLE, SUSTAINABLE and ADAPTABLE. The ability to anticipate potential challenges required imagination and a deep understanding of the realities of everyday work.

Carl Horsley, Intensivist, New Zealand @HorsleyCarl

"It is critical that 'work-as-prescribed' reflects 'work-as-done'"

Healthcare has a reputation for resistance to change, particularly top-down initiated change, with limited consultation with clinicians. During the pandemic, many frontline clinicians experienced change done 'to' them, instituted by administrators, particularly rationing personal protective

equipment. Other organisations have initiated clinician-led processes, resulting in durable models of care but uncovering 'wicked problems'. COVID-19 has taught me that engaging clinicians doing the work increases short-term complexity, but doing otherwise risks failure in the long term, losing trust on the way. It is critical that 'work-as-prescribed' reflects 'work-as-done' to prevent depletion of the workforce through infection and exhaustion.

Kara Allen, Anaesthetist, Australia @ergopropterdoc

"For the first time, work and its goals were shared"

"I know what I'm doing, I don't need to be told how to do it" … these are words I haven't heard during these months of COVID19. This whole experience was new for everyone. For many professionals, it has created a touching sense of humility, both among frontline actors and managers. I believe that this humility has facilitated communication and the emergence of a shared governance between caregivers and administrators where I've been working. For the first time, work and its goals were shared and the gap between work-as-imagined and work-as-done was almost zero.

François Jaulin, Anesthesiologist-Intensivist, France @Francois_JAULIN

"Looking back, local practice is not 'work-as-prescribed'"

Despite 25 years in the specialty, the COVID19 pandemic was my first introduction to Personal Protective Equipment (PPE) and a FFP3 mask. Fit testing achieved and training in PPE donning and doffing undertaken was great preparation to prevent catching a deadly viral disease. However, this was no preparation for the daily challenges of working in PPE exacerbated by concerns around PPE availability and changes in doffing station practice. The impact of heat, the need for good hydration, and the communication challenges became stressors – recognised and managed by great team working through adaptations in how we worked. Looking back, local practice is not 'work-as-prescribed'.

Alastair Williamson, Anaesthetist, UK @dr_alwilliamson

"Work-as-done can be close to work-as-imagined"

I have learned that some types of ambulance service work systems that would previously have been considered very difficult to change, can actually be reconfigured at pace and new ways of working can be introduced, which led to significantly different system performance. Work-as-done can be close to work-as-imagined with changes up to a certain size. With larger groups of workforce, it can be very difficult to influence multiple, often subtle, changes in work-as-done to match with the more easily changeable work-as-prescribed (and work-as-imagined). This was particularly evident in the early stages of the response phase when clinical, logistical and PPE criteria were becoming established.

Gary Rutherford, Ambulance Service Patient Safety Manager, Scotland @garyrutherford2

"Let user-centred and data-driven design lead us in rebuilding"

COVID-19 has shone a light on our lack of insight into complex system design. Healthcare is a precarious thing, balancing on the backs individual and team resourcefulness and resilience. Emergency medicine, in particular, suffers from 'ad hoc-itis'. Our ability to improvise solutions in the face of massive systemic limitations and inefficiencies is practically a professional badge of honour. But it doesn't have to be this way. We can build systems that make sense. We can use simulation-informed design, prototype testing, multi-source feedback and hazard analysis to help manage complexity rather than compel us to work against it. The pandemic has compelled us to tear down and begin again, and therein lies a massive challenge and unprecedented opportunity: let user-centred and data-driven design lead us in rebuilding.

Christopher Hicks, Emergency Physician, Trauma Team Leader, and Simulation Educator, Canada @HumanFact0rz

"By starting to address problems iteratively we could create a network of actions"

The biggest problem we faced at the start was the uncertainty and a stream of unfiltered information. We had tentative ideas of what needed to be done and what might happen. What we learned subsequently was that by starting to address problems iteratively we could create a network of actions that we could knit together. We rapidly developed a tolerance of failures, using them, with active feedback, to modify our processes and facilities adaptively, alongside the new information that became available. This made it much easier to try and keep pace with a rapidly evolving situation.

Alex Kazemi, Intensivist, New Zealand @KazemiAlex

"A significant issue…has been effective communication"

A significant issue for health professionals during the coronavirus pandemic has been effective communication while wearing PPE, especially for aerosol generating procedures. Voices are muffled, hearing is compromised and implicit communication through facial expression is lost. This is especially a problem for resuscitation teams working under pressure. We provided our staff with 5 tools (PRESS) to improve communication using PPE:

- P – Pre-transmission pause – think before you speak
- R – Read back – close the loop
- E – Eye contact – ensure focussed attention
- S – Say again – repeat critical information.
- S – Shared team mental model with a team rally point

Stephen Hearns, Consultant in Emergency and Retrieval Medicine @StephenHearns1

"We were finding solutions from the ground up"

During the start of the pandemic, the rules and guidance we had normally been following were gone. Sometimes, rules set out by people that don't 'do the work' are not the way that the work happens. These rules end up being a barrier to do the right thing. For example, filling a 35-page safety booklet about a newly admitted patient takes us away from practical tasks such as personal care or administering medication. Now, no-one knew the best way to do things. There was no evidence base to draw from, and no exemplars to follow. This led to a more collaborative approach. Everyone came up with ideas, and many more came from social media. We openly learned from each other. We were finding solutions from the ground up and the senior leadership team listened.

Claire Cox, Former Critical Care Outreach Nurse, England @safetynurse999

"The ability of staff to innovate and adapt was remarkable"

Without timely clear guidance arriving down the traditional lines, the ability of staff to innovate and adapt was remarkable. The constraint of normal change bureaucracy was temporarily suspended and essential new ways of working arrived in a rapid and remarkably effective way, significantly prior to written SOPs. Front-line staff absorbed the principles and developed them in appropriate ways for their own local work, often utilising the skillset of their staff, e.g., military nurses who had significant experience with PPE and Ebola. Staff needed guidance in underlying principles, but then excelled at translating them into their own working environment.

Pip Fabb, Consultant Anaesthetist, England @PipCassford

"My colleagues and I could adapt rapidly to these new conditions"

Overnight, my job changed from in-person clinical care to online telemedicine. Our telemedicine urgent care started seeing hundreds of COVID patients a day, a disease and volume that were totally new to us. I learned that my colleagues and I could adapt rapidly to these new conditions. The tradeoffs between in-person care and online care were challenging for everyone, as patients feared contracting COVID at the hospital. Communicating clearly with one another and with our patients about uncertainty and risk were essential, as conditions changed rapidly.

Shannon McNamara, Emergency Physician, USA @ShannonOMac

"Design and processes affect the normal functioning of a team"

Preparing a new 'COVID operating theatre' has highlighted the importance of how design and processes affect the normal functioning of a team. To minimise risk, the negative air pressure of a dedicated COVID theatre needs maintaining and non-essential equipment and personnel removed from the 'hot-zone'. Limiting opening of doors and wearing of masks and face shields results in markedly difficult communication – even when that communication is critical. Cameras, microphones, patching of monitors and hand signals are valuable but inadequate. There is certainly greater appreciation for shared mental models and planning for complications with pre-operative briefings than before the pandemic.

Stu Marshall, Anaesthesiologist, Australia @hypoxicchicken

"Where you draw the system boundary matters"

Where you draw the system boundary matters. I started chairing a theatre COVID preparedness group in March. We quickly transformed the theatre complex to handle a surge in patients with COVID, while keeping staff safe. We liaised with ED, ICU and the wards which are upstream/downstream of theatres. The teamwork, dynamism and psychological safety of the working group were excellent. There were times on the fringes of this system when we found other systems which benefitted from our input. Our system boundary did not include the whole hospital system and that was appropriate, other people were focusing on this. Looking back now I wonder about the care homes. They were not within my system and I didn't give them a second's thought within my planning. Whose system boundary included care homes? What were their working conditions, demands and constraints? How could we do better next time?

Michael Moneypenny, Anaesthetist, Scotland ⑤