File 3: Interview coding framework

Domain	CFIR construct	CFIR definition	Emergent themes
I. Intervention Characteristics	Intervention source	Perceptions of key stakeholders about whether the intervention is externally or internally developed	Use of oximetry evolved independently; Used as directed by NHS partners (GPs etc); Care homes proactively recruited into CO@h
	Evidence Strength & Quality	Stakeholders' perceptions of the quality and validity of evidence supporting the belief that the intervention will have desired outcomes.	Gathered from Wave 1; CH Managers were aware of benefits of using oximetry for certain conditions; awareness of silent hypoxia
	Relative advantage	The perceived advantage of using a particular intervention versus an alternative or existing solution	Another factor in understanding the health of the resident. Also adds to the range of information presented to NHS partners re resident's health
	Adaptability	The degree to which an intervention can be tailored or refined to meet the specific needs of the local environment	Flexible in its use (e.g. adopted as a routine measurement alongside temperature and blood pressure
	Complexity	The potential disruptiveness and intricacy involved in its implementation	Oximeters are quick and easy to use, non-invasive. Can readily provide additional clinical oversight for care home staff. Linking oximetry measurements with supporting networks potentially more complex
	Design Quality and Packaging	How well the intervention is presented and assembled	CO@h provided oximeters and instructions for use including escalation thresholds
	Cost	Costs of the intervention and associated with its implementation including required investment, and procurement	CO@h provided oximeters; CH independently sourced Oximeters as comparatively cheap [include pay grades of staff in report]

II. Outer Setting	Patient Needs & Resources	The extent of understanding of the needs of residents and the factors that affect the organisation's ability to meet those needs. This includes needs of family or residents	Understood vulnerability of residents (elderly, frail, dementia); Staff focussing on care of residents (both clinical and non-clinical) Leaders wanted to introduce CO@h to reduce health inequalities in care home settings
	Cosmopolitanism	The degree to which an organization is networked with other external organizations	Care homes were linked with each other through regional forums, their owners and care associations ; Linked to NHS via primary care (GP practices, paramedic services)
	External Policy & Incentives	The strategies that policymakers and commissioners employ to support implementation of the intervention, include mandates, guidelines, and financial incentives	Pre-covid little in way of coherent central guidance or recommendations for the use of oximetry; post-covid educational materials (e.g. NHS Futures websites, NHSE guidance, bespoke training RESTORE) produced but unclear as to reach/impact

III. Inner setting	Networks & Communications	The nature and quality of social networks and formal and informal communications within an organization	There would be regular handovers and there was a clear line of command within staff groups within the care home setting. Communicated with residents as part of their routine duties.
	Culture	The norms, values, and basic assumptions of a given organization	Staff/managers were committed to caring for residents (oximetry was seen as another tool that enabled that)
	Implementation Climate	The capacity for change of an organisation and its staff including the tension for change, compatibility, priority, learning climate, as well as how their use will be supported and rewarded	Staff were happy to increase use of oximetry during covid as so much was changing Tension for change - If it helped care for residents they were willing to take it on Compatibility – oximetry readily incorporated alongside other routine measurements Priority – understood the need to protect/monitor residents
	Readiness for implementation	The tangible indicators of organisational commitment to an intervention including leadership engagement, resources, training and access to supporting information)	National leaders – talked about leadership cohorts, open communication and a desire to push things forward At a care home level, managers had bought into the importance of oximetry. During the pandemic (and also afterwards) Oximeters were supplied by CO@h or otherwise were sourced by care homes. The accessibility of NHS and CO@h was praised. In both cases they were responsive to enquiries about Oximetry There was little in the way of formal training for carers

IV. Characteristics of individuals	Knowledge & Beliefs about the Intervention	Individuals' attitudes toward and value placed on the intervention as well as familiarity with facts, truths, and principles related to the intervention.	All staff grasped why oximeters were important in managing covid (and other conditions as prescribed by clinicians). This included lines of communication and escalation if issues arose
	Self-efficacy	Individual belief in their own capabilities to execute courses of action to achieve implementation goals.	Carers were happy to take on additional responsibility of oximetry and most felt confident/capable of doing so. There were calls for more systematic training in their use for all staff
	Individual Stage of Change	Characterization of the individuals progress toward skilled, enthusiastic, and sustained use of the intervention	Staff were happy to use as prescribed (CO@h/routine/specific conditions)
	Personal Attributes including identification with organisations	Personal traits such as tolerance of ambiguity, intellectual ability, motivation, values, competence, capacity, and learning style. This includes how individuals perceive the organization and their relationship and degree of commitment with that organization.	Will do what's necessary to care for residents - that is what they are there for; managers keen to provide the best care they can.

V. Process (of implementation)	*Planning*	The degree to which a scheme and tasks necessary for implementing an intervention are developed in advance and the quality of those schemes or methods	From leaders' interviews – learned from Wave 1, understood what was needed and acted, multiple stakeholders involved
	Engaging	Attracting and involving appropriate individuals in the implementation and use of the intervention	Use AHSNs and local networks to roll-out CO@hat national level. Where involved in virtual wards they were supported by local acute trust. There were gaps in training as approval for funds for educational materials happened too slowly
	Reflecting and evaluating	Quantitative and qualitative feedback about the progress and quality of implementation accompanied with regular personal and team debriefing about progress and experience	This evaluation was commissioned specifically to gather information on CO@h in care homes.