SCIROCCO Exchange Maturity Model for Integrated Care
1. Readiness to Change

Objectives
If the existing systems of care need to be re-designed to provide a more integrated set of services, this will require change across many levels, the creation of new roles, processes and working practices, and new systems to support information sharing and collaboration across care teams. This will be disruptive and may be viewed negatively by workers, press and public, so a clear case needs to be made for those changes, including a justification, a strategic plan, and a vision of better care.

- Creating a compelling vision, with a real sense of urgency, and enlisting stakeholder support including political leadership, management, care professionals, public and press.
- Accepting the reality that care systems are unsustainable and need to change.
- Considering the need to address the risk of health and social inequalities.
- Publishing a clear description of the issues, the choices that need to be made, and the desired future state of the care systems, stating what will be the future experience of care.
- Creating a sense of urgency to ensure sustained focus and building a ‘guiding coalition’ for change.

Assessment scale
0 - No acknowledgement of compelling need to change
1 - Compelling need is recognised, but no clear vision or strategic plan
2 - Dialogue and consensus-building underway; plan being developed
3 - Vision or plan embedded in policy; leaders and champions emerging
4 - Leadership, vision and plan clear to the general public; pressure for change
5 - Political consensus; public support; visible stakeholder engagement.

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1 The term care refers to both health and social care.
2. Structure & Governance

Objectives
The broad set of changes needed to deliver integrated care at a regional or national level presents a significant challenge. It needs multi-year programmes with efficient change management, funding and communications, and the power to influence and (sometimes) mandate new working practices. This means alignment of purpose across diverse organisations and professions, and the willingness to collaborate and put the interest of the overall care system above individual incentives. It also means managing the introduction of technology enabled care services in a way that makes them easy to use, reliable, secure, and acceptable to care professionals and citizens alike.

- Enabling properly funded programmes, including a strong programme, project management and change management; establishing digital competence centres to support roll-out; distributed leadership, to reduce dependency on a single heroic leader; excellent communication of goals, progress and successes.
- Managing successful digital innovation within a properly funded, multi-year transformation programme.
- Considering the need to address the risk of health and social inequalities.
- Establishing organisations with the mandate to select, develop and deliver digital services.

Assessment scale
0 - Fragmented structure and governance in place
1 - Recognition of the need for structural and governance change
2 - Formation of task forces, alliances and other informal ways of collaborating
3 - Governance established at a regional or national level
4 - Roadmap for a change programme defined and accepted by stakeholders involved
5 - Full, integrated programme established, with funding and a clear mandate.
3. Digital Infrastructure

Objectives

Integrated care requires data-sharing across diverse care teams. It leads progressively to systems that enable continuous collaboration, and the measurement and management of outcomes. This means building on existing digital care infrastructure in new ways to support integration and augmenting them with new capabilities such as enhanced security and mobility. The task can be made easier if the number of different systems in use, and the formats in which they exchange and store data, can be simplified.

Important elements of digital care infrastructure include:

- ‘Digital first’ policy (i.e. move face-to-face communication to digital services to reduce dependence on staff and promote self-service).
- Availability of essential components (ICT infrastructure) to enable data-sharing.
- Consolidation and standardisation of ICT infrastructure and solutions; fewer technical integration points to manage; interoperability and procurement.
- Data protection and security designed into patient records, registries and online services.
- Enabling of new channels for healthcare delivery and new services based on advanced communication and data processing technologies.

Assessment scale

0 - There is no digital infrastructure to support integrated care.
1 - There is a recognition of need but there is no strategy and/or plan on how to deploy and standardise digital infrastructure to support integrated care.
2 - There is a mandate and plan(s) to deploy regional/national digital infrastructure, including a set of agreed technical standards, across the health and social care system, but it is not yet implemented.
3 - Digital infrastructure to support integrated care are piloted but there is not yet region-wide coverage. A set of agreed technical standards exists to enable shared procurement of new systems; some large-scale consolidations of ICT are underway.
4 - Digital infrastructure to support integrated care is deployed widely at large scale but is not used by all stakeholders involved. A unified set of agreed standards is published; many shared procurements of new systems have been performed; shared services are widely deployed.
5 - Universal, at-scale regional/national digital infrastructure used by all stakeholders involved exists. A unified and mandated set of agreed standards is fully incorporated into procurement processes; the systems are fully interoperable; and use of shared services (including the cloud) is normal practice.
4 Process coordination

Objectives

Health and social care delivery is a complex series of processes that are linked and interact together to achieve specified outcomes. Care coordination of these processes demands new pathways and services to improve the quality and efficiency of care and avoid unnecessary variation. The need for coordination increases when patient care requires the intervention of different professionals. Care pathways are widely used for a structured and detailed planning of the care process, including care standards. Standards’ setting, and use varies among process components. Professionals and organisations can adhere to the standards voluntarily, or they can comply with legal regulation.

Process coordination enables effective deployment and scaling up of integrated care by:
● Developing new processes and pathways that are replicable, funded and/or reimbursed, and agreed by pertinent stakeholders.
● Including an explicit statement of the goals and key elements of care;
● Defining evidence-based guidelines and agreeing on plans for formal introduction and scaling-up new services into practice.
● Negotiating with a broad range of experts and authorities the introduction and deployment of measurable care standards.
● Safeguarding sustainability of new services and pathways.

Assessment scale

0 - No formal guidelines, description, agreements or standards on innovative coordinated care processes in integrated care services are in place or in development.
1 - The stakeholders produce some guidelines and recognise the need for the standardisation of coordinated care processes, but there are no formal plans to develop it.
2 - Some standardised coordinated care processes are underway; guidelines are used, some initiatives and pathways are formally described, but no systematic approach is planned.
3 - Services, pathways and care processes are formally described in a standardised way by the stakeholders. A systematic approach to their standardisation is planned but not deployed.
4 - Most coordinated care processes, including care pathways, are subject to a systematic approach, and are standardised and deployed throughout the whole region/country.
5 - A systematic approach to standardisation of coordinated care processes is in place across the region/country. The processes are scaled up, maintained and redesigned according to standards.
5. Funding

Objectives
Changing systems of care so that they can offer better integration requires initial investment and funding; a degree of operational funding during transition to the new models of care; and on-going financial support until the new services are fully operational and the older ones are de-commissioned. Ensuring that initial and on-going costs can be financed is an essential activity that uses the full range of mechanisms from regional/national budgets to ‘stimulus’ funds, European Union investment funds, public-private partnerships (PPP) and risk-sharing mechanisms.

Assessment scale
0 - No additional funding is available to support the move towards integrated care
1 - Funding is available but mainly for the pilot projects and testing
2 - Consolidated innovation funding available through competitions/grants for individual care providers and small-scale implementation
3 - Regional/national (or European) funding or PPP for scaling-up is available
4 - Regional/national funding and/or reimbursement schemes for on-going operations is available
5 - Secure multi-year budget and/or reimbursement schemes, accessible to all stakeholders, to enable further service development.
6. Removal of Inhibitors

Objectives

Even with political support, funded programmes and good eHealth infrastructure, many factors can still make integrated care difficult to deliver, by delaying change or limiting how far change can go. These include legal issues with data governance, resistance to change from individuals or professional bodies, cultural barriers to the use of technology, perverse financial incentives, and lack of skills. These factors need to be recognised early, and a plan developed to deal with them, so as to minimise their impact.

- Actions to remove barriers: legal, organisational, financial, skills considering the need to address the risk of health and social inequalities.
- Changes to the law concerning e.g., medical acts, information governance, data sharing -factors which may hold up innovation.
- Creation of new organisations or collaborations to encourage cross-boundary working (‘normative integration’).
- Changes to reimbursement to support behavioural change and process change.
- Education and training to increase understanding of innovations and technology enabled care solutions in order to speed up solution delivery.

Assessment scale

0 - No awareness of the effects of inhibitors on integrated care
1 - Awareness of inhibitors but no systematic approach to their management is in place
2 - Strategy for removing inhibitors agreed at a high level
3 - Implementation Plan and process for removing inhibitors have started being implemented locally
4 - Solutions for removal of inhibitors developed and commonly used
5 - High completion rate of projects & programmes; inhibitors no longer an issue for service development.
7. Population Approach

Objectives
Integrated care can be developed to benefit those citizens who are not thriving under existing systems of care, in order to help them manage their health and care needs in a better way, and to avoid emergency calls and hospital admissions and reduce hospital stays. This is a practical response to meeting today’s demands. Population health goes beyond this and uses methods to understand where future health risk (and so, demand) will come from. It offers ways to act ahead of time, to predict and anticipate, so that citizens can maintain their health for longer and be less dependent on care services as they age.

- Understanding and anticipating demand; meeting needs better and addressing health and social inequalities.
- Improving the resilience of care systems by using existing data on public health, health risks, and service utilisation.
- Taking steps to divert citizens into more appropriate and convenient care pathways based on user preferences.
- Predicting future demand and taking steps to reduce health risks through technology-enabled public health interventions.

Assessment scale
0 - Population health approach is not applied to the provision of integrated care services
1 - Population-wide risk stratification considered but not started
2 - Risk stratification approach is used in certain projects on an experimental basis
3 - Risk stratification used for specific groups i.e. those who are at risk of becoming frequent service users
4 - A population risk approach is applied to integrated care services but not yet systematically or to the full population
5 - Whole population stratification deployed and fully implemented.
8. Citizen Empowerment

Objectives
Health and social care systems are under increasing pressure to respond to demands that could otherwise be handled by citizens and carers themselves. The evidence suggests that many individuals would be willing to do more to participate in their own care if easy-to-use services, such as appointment booking, self-monitoring of health status, and alternatives to medical appointments, were available to them. This means providing services and tools that enable convenience, offer choice, and encourage self-service and engagement in health management, considering the need to address the risk of health and social inequalities.

Assessment scale
0 - Citizen empowerment is not considered as part of integrated care provision
1 - Citizen empowerment is recognised as important part of integrated care provision but effective policies to support citizen empowerment are still in development
2 - Citizen empowerment is recognised as important part of integrated care provision, effective policies to support citizen empowerment are in place but citizens do not have access to health information and health data
3 - Citizens are consulted on integrated care services and have access to health information and health data
4 - Incentives and tools exist to motivate and support citizens to co-create healthcare services and use these services to participate in decision-making process about their own health
5 - Citizens are fully engaged in decision-making processes about their health and are included in decision-making on service delivery and policy-making.
9. Evaluation Methods

Objectives
As new care pathways and services are introduced to support integrated care, there is a clear need to ensure that the changes are having the desired effect on quality of care, cost of care, access and citizen experience. This supports the concept of evidence-based investment, where the impact of each change is evaluated, e.g. by health economists working in universities or in special agencies. Health technology assessment (HTA) is an important method here and can be used to justify the cost of scaling up of integrated care to regional or national level.

- Establishing baselines (on cost, quality, access etc.) in advance of new service introduction.
- Systematically measuring the impact of new services and pathways using appropriate methods (e.g., observational studies, incremental improvement, clinical trials).
- Generating evidence that leads to faster adoption of good practice.

Assessment scale
0 - No evaluation of integrated care services is in place or in development
1 - Evaluation of integrated care services is planned to take place and be established as part of a systematic approach
2 - Evaluation of integrated care services exists, but not as a part of a systematic approach
3 - Some integrated care initiatives and services are evaluated as part of a systematic approach
4 - Most integrated care initiatives are subject to a systematic approach to evaluation; published results
5 - A systematic approach to evaluation, responsiveness to the evaluation outcomes, and evaluation of the desired impact on service redesign (i.e., a closed loop process).
10. Breadth of Ambition

Objectives
Integrated care includes many levels of integration, such as integration between primary and secondary care, of all stakeholders involved in the care process, or across many organisations. It may be developed simply for healthcare needs (i.e., vertical integration) or it may include social workers, the voluntary sector, and informal care (i.e., horizontal integration). The broader the ambition, the more numerous and diverse the stakeholders who have to be engaged. Similarly, integration may include all levels of the system or may be limited to clinical information sharing. The long-term goal should be fully integrated care services which provide a complete set of seamless interactions for the citizen, leading to better care and improved outcomes.

- Integration supported at all levels within the healthcare system - at the macro (policy, structure), meso (organisational, professional) and micro (clinical) levels.
- Integration between the healthcare system and other care services (including social, voluntary, informal, family services).
- Seamless transition for the patient between and within care services.

Assessment scale
0 - Coordination activities arise but not as a result of planning or the implementation of a strategy
1 - The citizen or their family may need to act as the integrator of service in an unpredictable way
2 - Integration within the same level of care (e.g., primary care) is achieved
3 - Integration between care levels (e.g., between primary and secondary care) is achieved
4 - Improved coordination of social care service and health care service needs is introduced
5 - Fully integrated health & social care services are in place and functional.
11. Innovation Management

Objectives
Many of the best ideas are likely to come from clinicians, nurses and social workers who understand where improvements can be made to existing processes. These innovations need to be recognised, assessed and, where possible, scaled up to provide benefit across the system. At the same time, universities and private sector companies are increasingly willing to engage in open innovation, and innovative procurement, in order to develop new technologies, test process improvements and deliver new services that meet the needs of citizens. There is also value in looking outside the system to other regions and countries that are dealing with the same set of challenges, to learn from their experiences. Overall, this means managing the innovation process to get the best results for the systems of care and ensuring that good ideas are encouraged and rewarded.

- Adopting proven ideas faster
- Enabling an atmosphere of innovation from top to bottom, with collection and diffusion of best practice
- Learning from inside the system, as well as from other regions, to expand thinking and speed up change
- Involving regional health and social care authorities, universities and private sector companies and other sectors in the innovation process (i.e., ‘open innovation’).
- Using innovative procurement approaches (Pre-Commercial Procurement, Public Procurement of Innovation, Public Private Partnerships, Shared Risk, Outcome-Based Payment)
- Using European projects and partnerships (e.g., Horizon 2020, European Regional Development Funds, European Social Investment Funds and other).

Assessment scale
0 - No innovation management in place
1 - Innovation is encouraged but there is no overall plan
2 - Innovations are captured and there are some mechanisms in place to encourage knowledge transfer
3 - Formalised innovation management process is planned and partially implemented
4 - Formalised innovation management process is in place and widely implemented
5 - Extensive open innovation combined with supporting procurement and the diffusion of good practice is in place
12. Capacity Building

Objectives

Capacity building is the process by which individual and organisations obtain, improve and retain the skills and knowledge needed to do their jobs competently. As the systems of care are transformed, many new roles will need to be created and new skills developed. These will range from technological expertise and project management, to successful change management. The systems of care need to become ‘learning systems’ that are constantly striving to improve quality, cost and access. They must build their capacity so as to become more adaptable and resilient. As demands continue to change, skills, talent and experience must be retained. This means ensuring that knowledge is captured and used to improve the next set of projects, leading to greater productivity and increasing success.

- Increasing skills; continuous improvement.
- Building a skill base that can bridge the gap and ensure that the capacity needs are understood and addressed by digital solutions where appropriate.
- Providing tools, processes and platforms to allow organisations to assess themselves and build their own capacity to deliver successful change.
- Creating an environment where service improvements are continuously evaluated and delivered for the benefit of the entire care system.

Assessment scale

0 - Integrated care services are not considered for capacity building
1 - Some approaches to capacity building for integrated care services are in place
2 - Cooperation on capacity building for integrated care is growing across the region
3 - Learning about integrated care and change management is in place but not widely implemented
4 - Systematic learning about integrated care and change management is widely implemented; knowledge is shared, skills retained and there is a lower turnover of experienced staff
5 - A ‘person-centred learning healthcare system’ involving reflection and continuous improvement is in place.