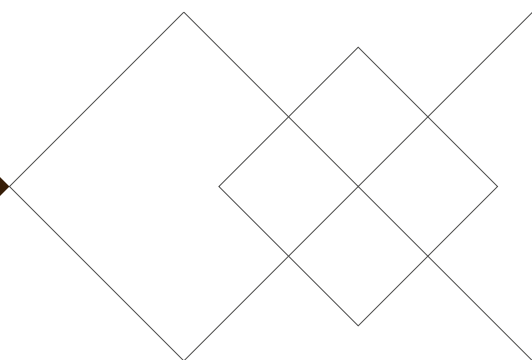


# Continuity and coordination of care

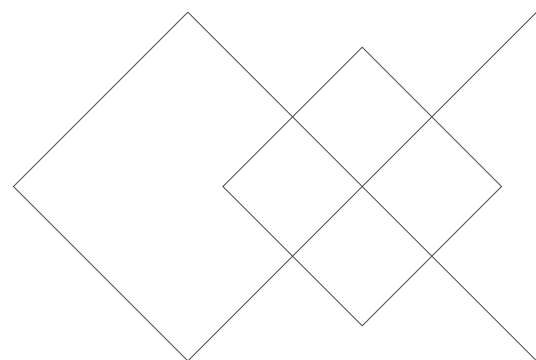
A practice brief to support implementation  
of the WHO Framework on integrated  
people-centred health services





# Continuity and coordination of care

A practice brief to support implementation  
of the WHO Framework on integrated  
people-centred health services



Continuity and coordination of care: a practice brief to support implementation of the WHO Framework on integrated people-centred health services

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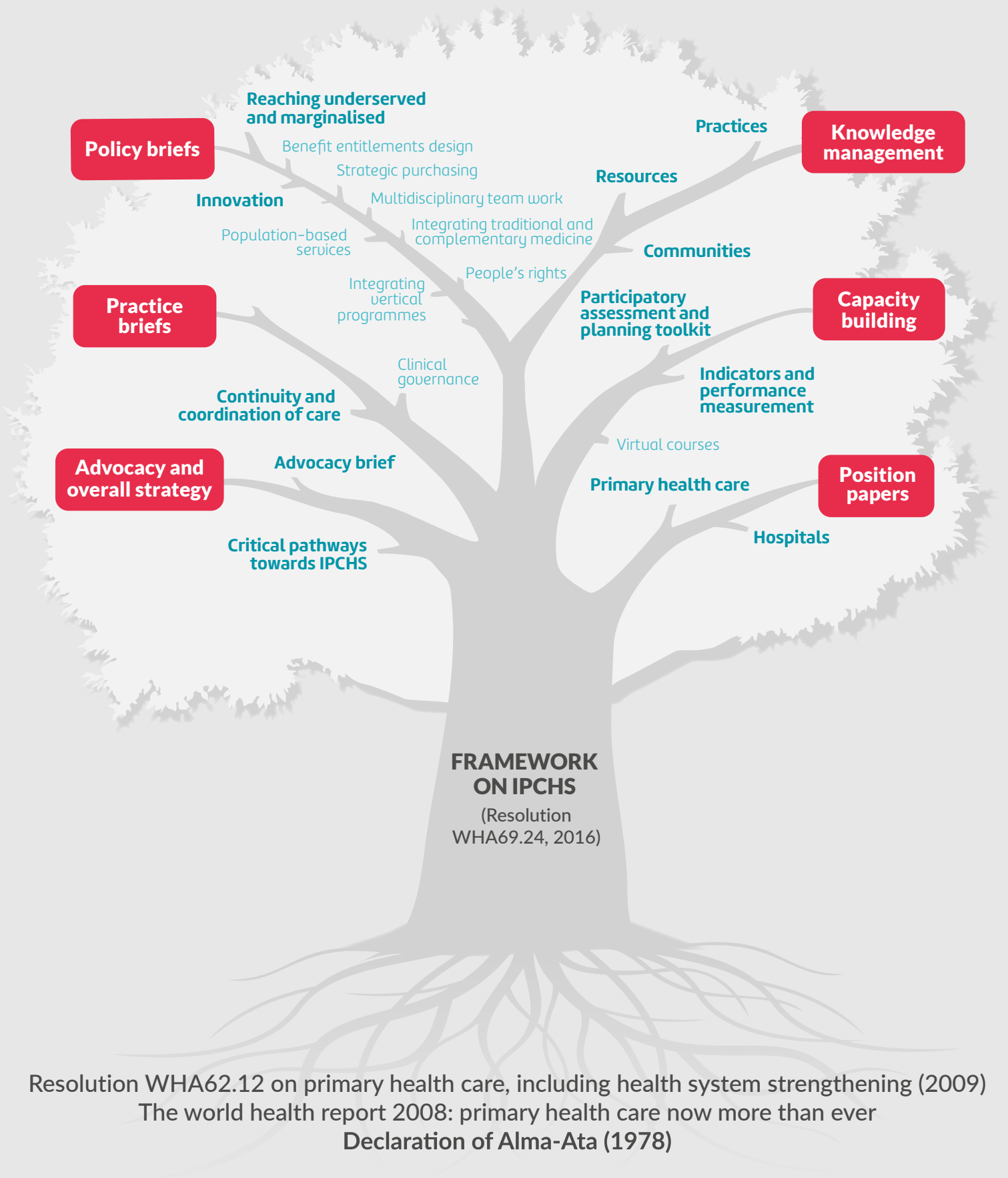
# Preface

This practice brief on the continuity and coordination of care addresses the conditions and ongoing relationships needed to support seamless interactions among multiple providers within interdisciplinary teams and/or across care settings and/or sectors. It is part of a suite of WHO resources to support implementation of the Framework on integrated people-centred health services (IPCHS), approved by the World Health Assembly in 2016.

For health care and coverage to be truly universal, health services designed around diseases and health institutions must be transformed into health services designed for people, with people. The IPCHS Framework provides guidance to practitioners, provider organizations and system leaders to organize, manage and deliver care that best meets people's comprehensive health needs, irrespective of country setting or development status. It promotes cross-cutting collaboration and integration across sectors, health care settings, providers and users.

IPCHS implementation support encompasses guidance, products and tools, including advocacy materials, strategy papers, position papers, policy and practice briefs, capacity-building toolkits, knowledge management platforms and technical assistance to countries. For more information, see our dedicated WHO webpage ([www.who.int/servicedeliverysafety/areas/people-centred-care](http://www.who.int/servicedeliverysafety/areas/people-centred-care)) and knowledge management platform ([www.integratedcare4people.org](http://www.integratedcare4people.org)).

# Integrated people-centred health services implementation support guidance, products and tools



Resolution WHA62.12 on primary health care, including health system strengthening (2009)  
 The world health report 2008: primary health care now more than ever  
 Declaration of Alma-Ata (1978)

Dare to  
*transform*

**Integrated people-centred health services**



**World Health  
Organization**



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The views expressed in this document do not necessarily represent the opinions of the individuals mentioned here or their affiliated institutions.

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# Glossary

**Care coordination:** a proactive approach to bringing together care professionals and providers to meet the needs of service users to ensure that they receive integrated, person-focused care across various settings.

**Case management:** a targeted, community-based, proactive approach to care that involves case finding, assessment, care planning and coordination to integrate services to meet the needs of people with long-term conditions.

**Continuity of care:** the degree to which a series of discrete health care events is experienced by people as coherent and interconnected over time and consistent with their health needs and preferences.

**eHealth:** information and communication technologies that support remote management of people and communities with various health care needs by supporting self-care and enabling electronic communication among health care professionals and patients.

**Empowerment:** supporting people and communities in taking control of their own health, resulting, for example, in healthier behaviour or self-management of illnesses.

**Engagement:** involving people and communities in the design, planning and delivery of health services that, for example, enable them to make choices among care and treatment options or to participate in strategic decision-making on how health resources should be spent.

**High-quality care:** care that is safe, effective, people-centred, timely, efficient, equitable and integrated.

**Integrated health services:** health services that are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector and according to their needs throughout the life course.

**People-centred care:** an approach to care that consciously adopts the perspectives of individuals, carers, families and communities as participants in and beneficiaries of trusted health systems that are organized around the comprehensive needs of people rather than individual diseases, and that respect social preferences. People-centred care is broader than patient and person-centred care, encompassing not only clinical encounters, but also including attention to the health of people in their communities and their crucial role in shaping health policy and health services.

**Person-centred care:** care approaches and practices in which the person is seen as a whole, with many levels of needs and goals, the needs being derived from their personal social determinants of health.

**Population health:** an approach to improving the health outcomes of a group of individuals, including the distribution of outcomes within the group.

**Primary care:** the provision of integrated, accessible health care services by practitioners who are accountable for addressing a large majority of personal health care needs, developing sustained partnerships with people, and practicing in the context of the family and community. In some regions, it is also referred to as the first level of care.

**Primary health care:** essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community, through their full participation and at a cost that the community and country can afford to maintain, at every stage of their development in the spirit of self-reliance and self-determination. It is the first level of contact of individuals, the family and community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

# Executive summary

This practice brief addresses the relatively ill-defined, under-researched concepts of continuity and care coordination, which are broad and interrelated.

- **Continuity of care:** reflects the extent to which a series of discrete health care events is experienced by people as coherent and interconnected over time and consistent with their health needs and preferences.
- **Care coordination:** a proactive approach to bringing together care professionals and providers to meet the needs of service users, to ensure that they receive integrated, person-focused care across various settings.

Without good continuity or coordination of care and support, many patients, carers and families experience fragmented, poorly integrated care from multiple providers, often with suboptimal outcomes and risk of harm due to failures of communication, inadequate sharing of clinical information, poor reconciliation of medicines, duplication of investigations and avoidable hospital admissions or readmissions (1). This is a particular problem for people with chronic or complex conditions that require care and support, many of whom have multiple conditions associated with a low income or complex circumstances, who are often underserved, in both high-income (2) and low- and middle-income (LMI) countries (3). Continuity and coordination of care are therefore global priorities for reorienting health services to the needs of people. They are important for all health care systems and economies, for care providers in a range of settings and at all life stages.

The practice brief is based on the classification published in reviews of continuity (4) and coordination (1). Interpersonal continuity, sometimes referred to as “relational continuity”, results in trusting relationships, which are more likely to ensure empathic, collaborative consultations in which people understand their conditions and medicines. It thus enhances empowerment, enablement and adherence to treatment. Longitudinal management and informational continuity create the conditions for more informed interactions over time and seamless coordination of care and support. The classification helps to frame the various practice interventions that support continuity and care coordination.

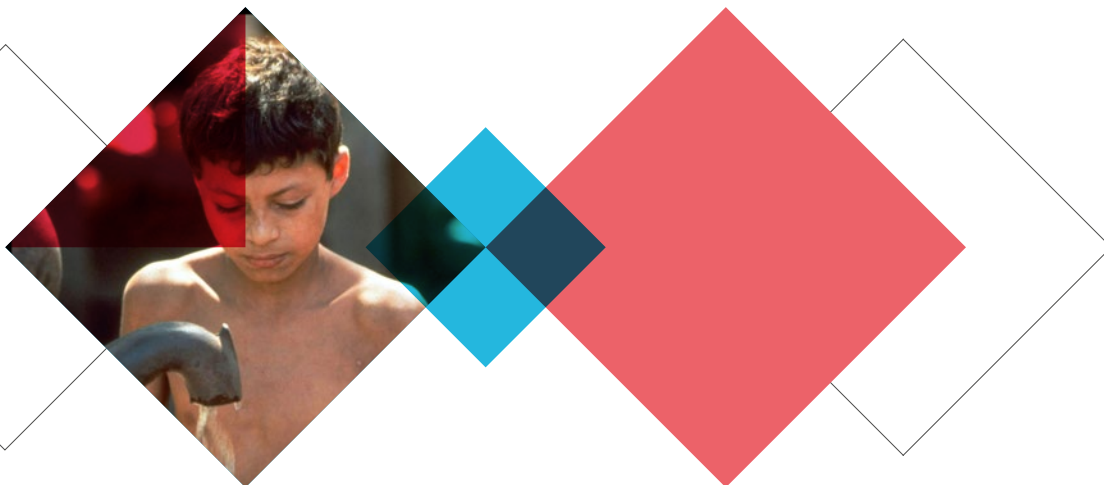
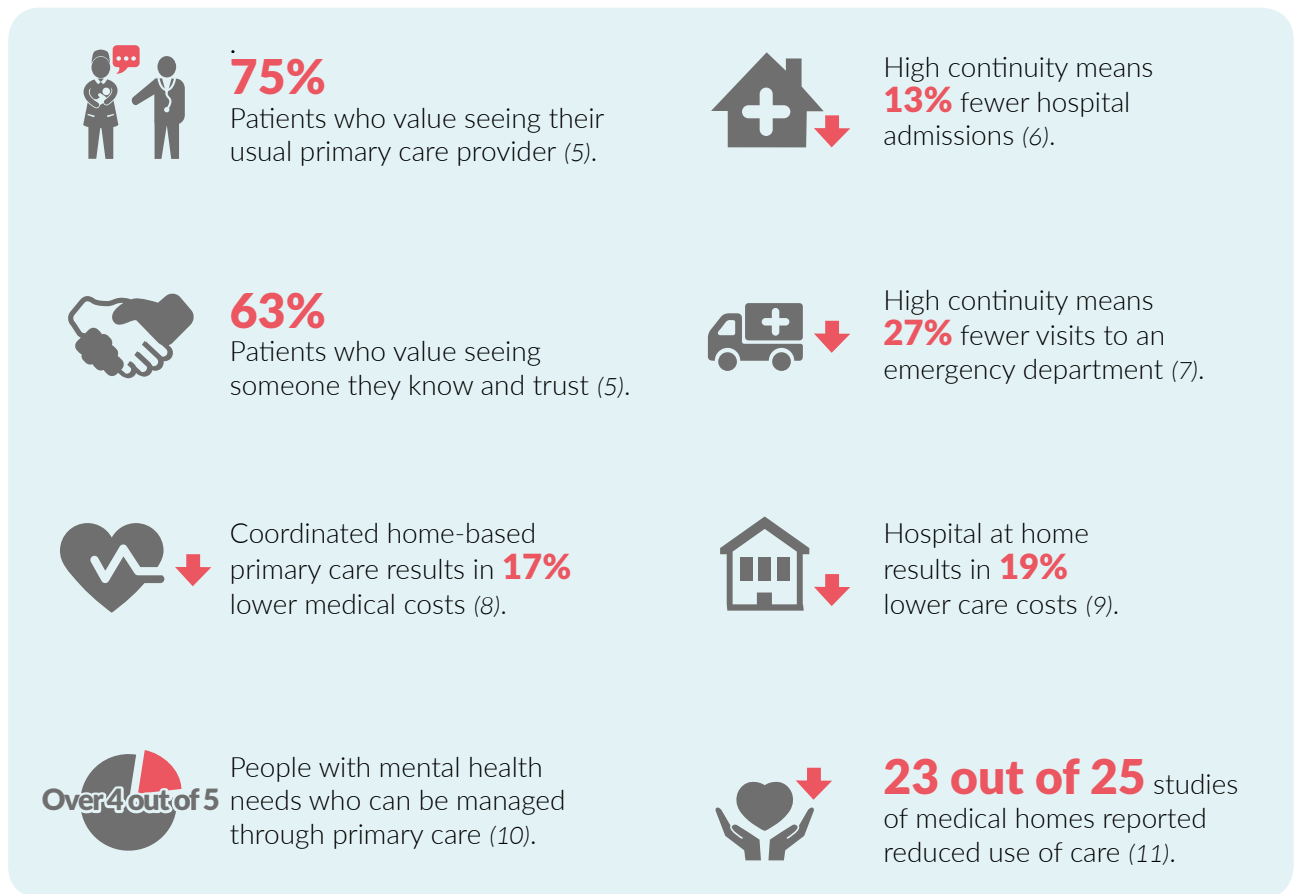
A targeted literature review identified practice intervention that increase continuity and care coordination and improve the experience of care for both patients and providers, improve the quality of care, enhance health outcomes or contribute to improved health system performance (Figure 1). Analysis of the evidence identified eight priorities for intervention and action. For each priority, we describe the approach and its impact on the experience or outcomes of care and provide examples from both high-income and LMI countries. When possible, the examples are linked to more comprehensive reviews or case studies.

A detailed discussion of the management of change is outside the scope of this document. However, we highlight some practical actions for implementation of the eight priority practices.

## Continuity and coordination of care

A practice brief to support implementation of the WHO Framework on integrated people-centred health services

Figure 1 Continuity and care coordination: key messages from the literature





1 ▶▶▶

# INTRODUCTION

# 1. Introduction

This practice brief is part of a suite of tools for implementing the WHO Framework on integrated people-centred health services (IPCHS) (12).

This global framework (Annex 1) presents an ambitious, compelling vision for a future, in which

“All people have equal access to quality health services that are co-produced in a way that meets their life course needs, are coordinated across the continuum of care and are comprehensive, safe, effective, timely, efficient and acceptable; and all carers are motivated, skilled and operate in a supportive environment.”

The Framework proposes five interdependent strategies (Figure 2) that need to be adopted in order for health service delivery to better respond to people's needs throughout their life course. Action on each of these strategies is intended to have an influence at different levels – from the way services are delivered to people, families and communities, to changes in the way organizations, care systems and policy-making operate. Put together, the five strategies represent an interconnected set of actions that seeks to transform health systems to provide services that are more people-centred and integrated.

## Relationships

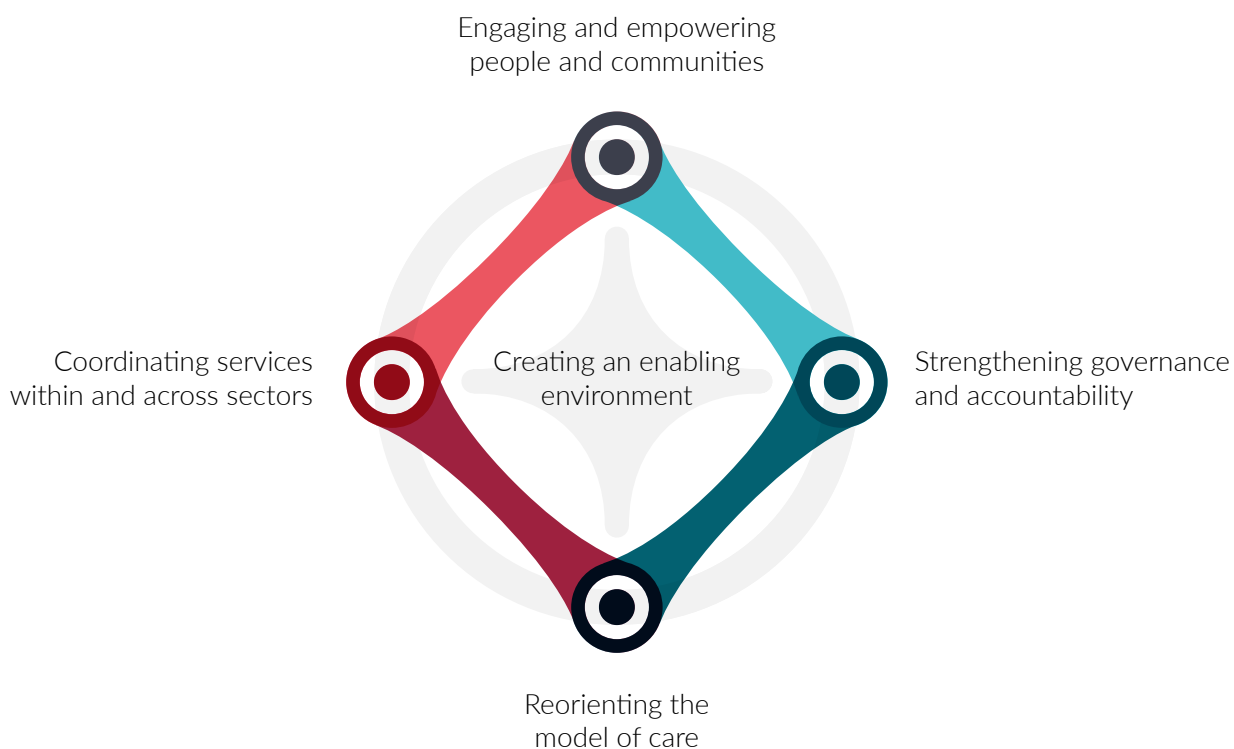
Continuity enables care coordination by creating the conditions and ongoing relationships to support seamless interactions among multiple providers, within interdisciplinary teams or in care settings or sectors.

“Without relationships built on security, reliability and continuity, case management wasn't as effective.”<sup>(13)</sup>

Both continuity and care coordination bridge all five IPCHS strategies and are critical to achieve people-centred care. They are perhaps most closely aligned to the IPCHS strategies on *Reorienting the model of care* and *Coordinating services within and across sectors* around the needs of people. Continuity of care is also a strong foundation for the trusting relationships, shared decision-making and co-production of health and well-being described in the strategy on *Engaging and empowering people and communities*.

Implementation of continuity and care coordination requires leadership support, information systems and educational, financial and contractual levers, which are described in *Creating an enabling environment*. Assuring effective continuity and care coordination also requires a number of system actions for *Strengthening governance and accountability*, including strengthened integrated health services governance and management at subnational and local levels.

**Figure 2** The five interdependent strategies of the WHO Framework on integrated people-centred health services (IPCHS)



## Evidence review

The method used for the targeted literature review on continuity and care coordination is described in Annex 2. We conducted neither a full systematic review nor a review of all aspects of IPCHS. Rather, the review focused on a classification of continuity and care coordination, the relation between the two concepts and their impact on outcomes for people and for health care systems.

The search yielded 81 articles that were retained for full reading: 21 were systematic reviews, 39 were primary empirical studies, and 21 were “grey” literature on approaches and interventions in continuity and care coordination. The papers were analysed to identify actionable priority practices associated with good quality of care, improved outcomes or a positive patient or carer experience.

## Limitations

Much of the current evidence base is from managed care settings in high-income countries, as many reviews of patient–provider relationships and continuity of care excluded studies in LMI countries on the basis of language or other criteria developed in high-income countries (14). The analysis was nevertheless tested against key themes in a scoping review of the literature on the experience of compassion and continuity of care in Latin American and Caribbean countries.

In many countries, continuity and coordination depend heavily on the contribution of informal caregivers and family support. This is particularly true in LMI countries and where there are shortages of health care workers and many dispersed, remote communities. A targeted search of grey literature revealed practice examples from a range of health care systems, including in LMI countries, by various providers, in a range of care settings and across the different life stages.







2 ▶▶▶  
**CONCEPTS**

## 2. Concepts

Continuity and care coordination are closely related. Continuity enables care coordination by creating the conditions and relationships to support seamless interactions among multiple providers within interdisciplinary teams or across care settings or sectors.

Two recent studies show that a continuing relationship with a primary care professional is a solid platform for the effective collaboration and communication required to coordinate care and to improve the patient experience and outcomes.

- An international health policy survey conducted by the Commonwealth Fund in 2013 found a significant association between a continuing relationship with a primary care physician and better care coordination outcomes (15).
- Analysis of linked data on primary and secondary care for 230 472 adults aged 62–82 years in 200 general practices in England showed that patients who saw the same general practitioner a greater proportion of the time had fewer admissions to hospital for ambulatory care-sensitive conditions (6).

In high-income countries and in emerging economies, as expectations rise, the public may by-pass their primary care professional to access hospital services directly (16). Access to services may differ significantly between affluent and less affluent regions (3) and between permanent residents and migrants (17).

A review of the literature on interpersonal continuity, from the perspectives of primary health care users in Latin America and the Caribbean, (18) explored the relations between continuity, person-centred care, coordination and outcomes in LMI countries, where care is highly variable and poorly regulated (19) and people have limited opportunities for shared decision-making. Table 1 lists the impacts, enablers and influencers of continuity and compassion in this context.

**Table 1** Interpersonal continuity of care and compassion in low- and middle-income countries

|   |  |
|---|--|
| <p><b>Impact on people who receive care and support</b></p> | <ul style="list-style-type: none"> <li>• Perceived comfort, rapport and trust</li> <li>• Continuity of care</li> <li>• Person-centred care processes</li> <li>• Coordination of care based on personal trajectory</li> <li>• Motivation and adherence</li> </ul>   |
| <p><b>Enablers</b></p>                                      | <ul style="list-style-type: none"> <li>• Clarity and availability of information</li> <li>• Sensitive oral and non-verbal communication</li> <li>• Education for providers and informal caregivers</li> <li>• Privacy and reduction of stigmatization</li> <li>• Gender and community empowerment</li> </ul> |
| <p><b>Influencers</b></p>                                   | <ul style="list-style-type: none"> <li>• Gender and attitude of providers</li> <li>• Time</li> <li>• Perception of public as opposed to private health care</li> <li>• Culture and language</li> <li>• Civil and military conflicts</li> </ul>   |

**Source:** adapted from (18).

## Classification

Deeny and colleagues (4) framed continuity as a complex concept with multiple dimensions and updated earlier frameworks described by Freeman et al. (20) and Haggerty et al. (21).

The four domains of continuity in the new Framework are:

- interpersonal continuity: the subjective experience of the caring relationship between a patient and his or her health care professional;
- longitudinal continuity: a history of interaction with the same health care professional in a series of discrete episodes;
- management continuity: effective collaboration of teams across care boundaries to provide seamless care; and
- informational continuity: the availability of clinical and psychosocial information at all encounters with professionals.

Øvretveit (1) described three types of clinical coordination:

- sequential: planned handover of responsibility and transfer of care;
- parallel: collaboration among professionals with agreed sharing of responsibility; and
- indirect influence: enabling coordination through tools, incentives or education.

This classification of the elements of continuity and care coordination indicates some overlap. For example, *interpersonal continuity* and *longitudinal continuity* enable effective coordination of care for the needs of the individual, so that the care is integrated and person-centred in various episodes and care settings.

*Sequential coordination* and *parallel coordination* are different ways of providing *management continuity*, in which professionals collaborate to provide seamless care across care boundaries. Many of the *system influencers* or enablers of care coordination, such as protocols, pathways, financial incentives, technology and education, enhance *management and informational continuity* of care.

## Practice interventions

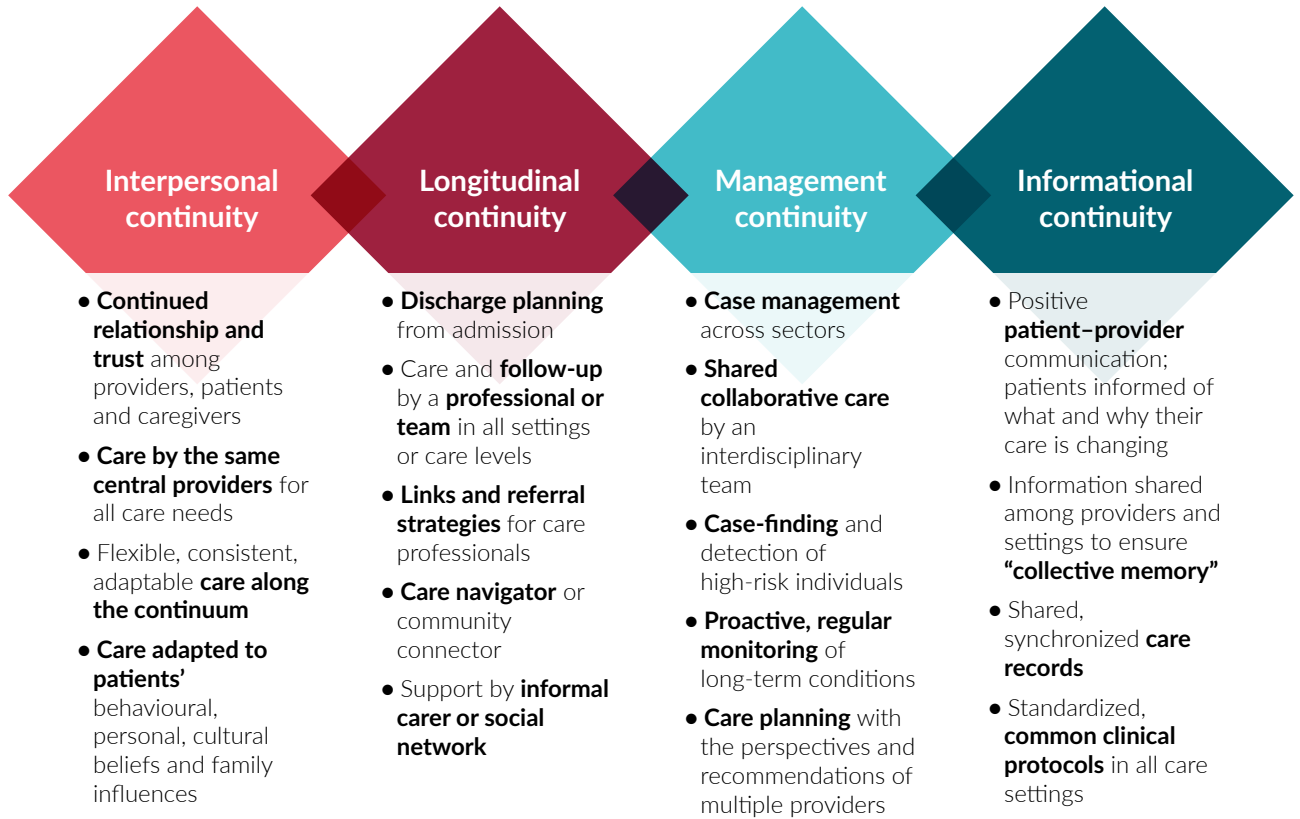
Understanding these distinct elements helps to frame the range of approaches and interventions that support the delivery of continuity and care coordination. Figures 3 and 4 give examples of practice interventions. The literature review identified interventions that enhance continuity and care coordination, improve the experience and health outcomes of people receiving long-term care or support, enhance the provider experience or contribute to improved health system performance. Effective models of integrated people-centred care often combine several practice interventions that support different aspects of continuity and care coordination. These may be integrated to amplify their effect at various stages of the pathway of care and are, ideally, delivered within a comprehensive programme that can be tailored to a specific condition or care group.



## Continuity and coordination of care

A practice brief to support implementation of the WHO Framework on integrated people-centred health services

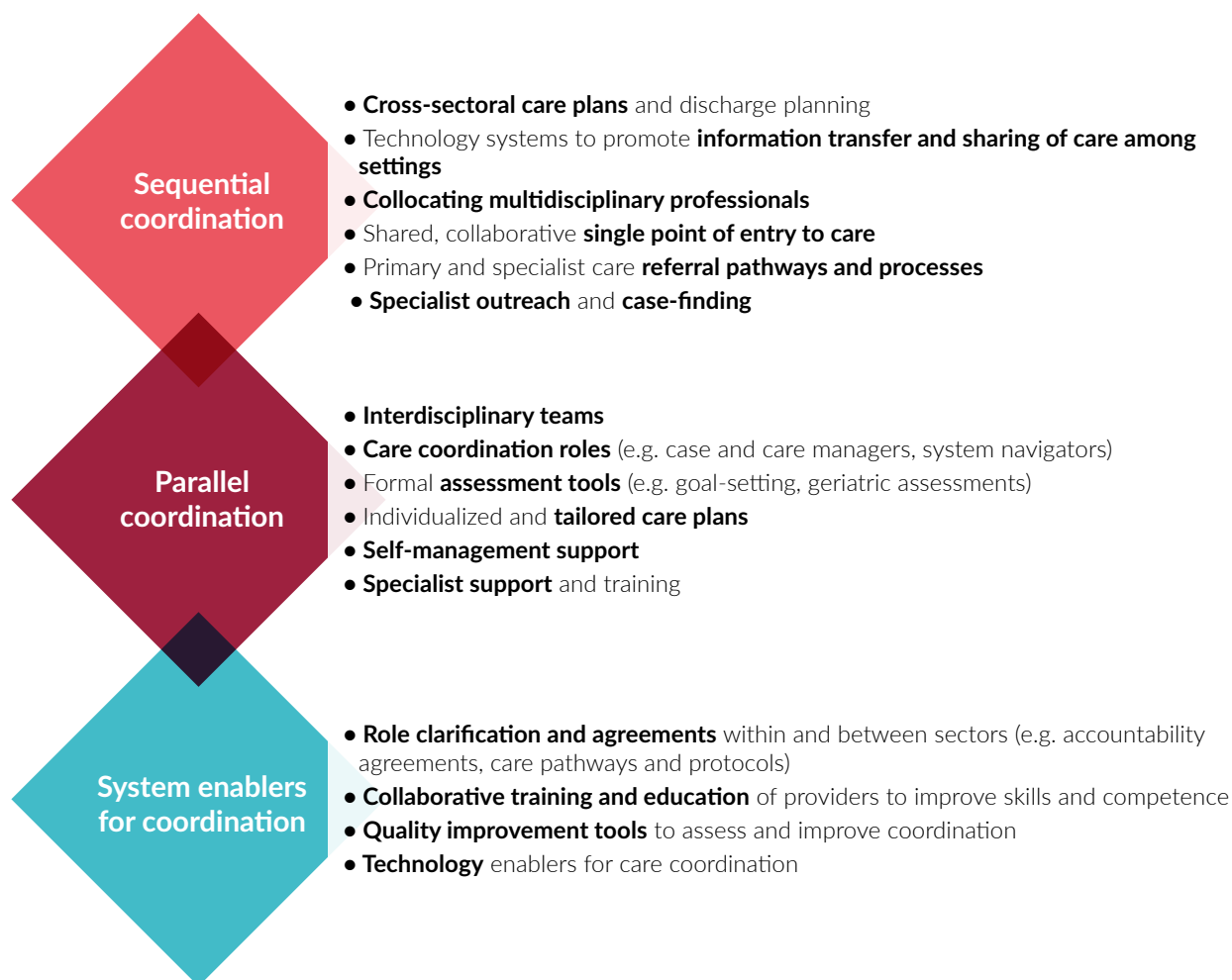
**Figure 3** The range of approaches and interventions for achieving continuity of care



*Source: adapted from (4).*



**Figure 4** The range of approaches and interventions for optimizing care coordination



**Source:** adapted from (1).

## Continuity drives care coordination

A “driver diagram” represents the results chain or the hierarchy of contributions that may be anticipated from a package of interventions and processes to deliver a desired outcome. Figure 5 shows a driver diagram for continuity and care coordination. It illustrates the contributions of practice interventions to the various aspects of continuity, to achieve the desired outcomes: a positive experience of care, a smooth, well-coordinated transition through care

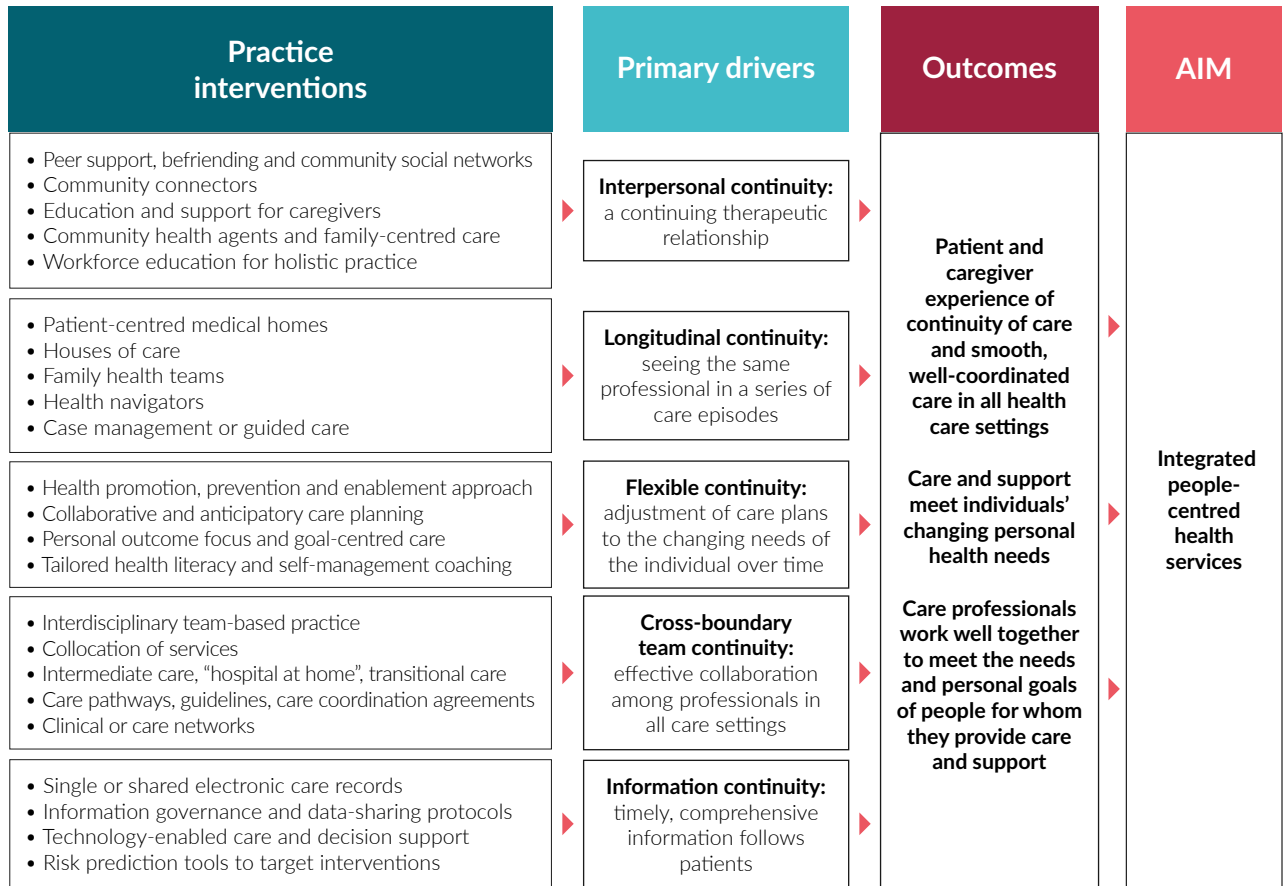
episodes and settings with changing needs and well-coordinated, effective interdisciplinary practice. These outcomes combine to contribute to the overall aim of IPCHS.

From analysis of the evidence for these practice interventions, we have identified eight priority approaches with evidence for action. For each priority, we describe the approach and the impact on the experience or outcomes of care. The examples selected draw on the scientific and grey literature from both high-income and LMI countries.

## Continuity and coordination of care

A practice brief to support implementation of the WHO Framework on integrated people-centred health services

**Figure 5** Drivers of continuity and care coordination





3 ▶▶

# PRIORITY PRACTICES

## 3. Priority practices

Continuity and care coordination have the greatest impact when practice interventions are delivered in a “bundle” along the care pathway, ideally as part of a comprehensive model of care with primary care as its focus.

The evidence suggests eight key actionable priorities:

**1. Continuity with a primary care professional.**

People who have continuous contact with their usual primary care provider have fewer attendances and admissions to an emergency department for conditions requiring ambulatory care and are more satisfied with their care.

**2. Collaborative planning of care and shared decision-making.**

Having person-centred, goal-oriented planning of care and coaching that enables individuals, families and informal caregivers to be fully involved in assessment and decisions about care is a factor in successful care coordination.

**3. Case management for people with complex needs.**

Having a proactive, continuous relationship in case-finding, assessment, care planning and care coordination to integrate the services needed by an individual reduces the probability that they will experience gaps in care.

**4. Collocated services or a single point of access.**

Collocation of different professionals, providers and services and links with people who know local

community and voluntary resources helps people who require chronic care to navigate and access the services and community support they need.

**5. Transitional or intermediate care.**

Effective management of the transition of care from hospital to home improves the quality of care, speeds functional recovery, reduces the rate of rehospitalization and reduces the cost of care.

**6. Comprehensive care along the entire pathway.**

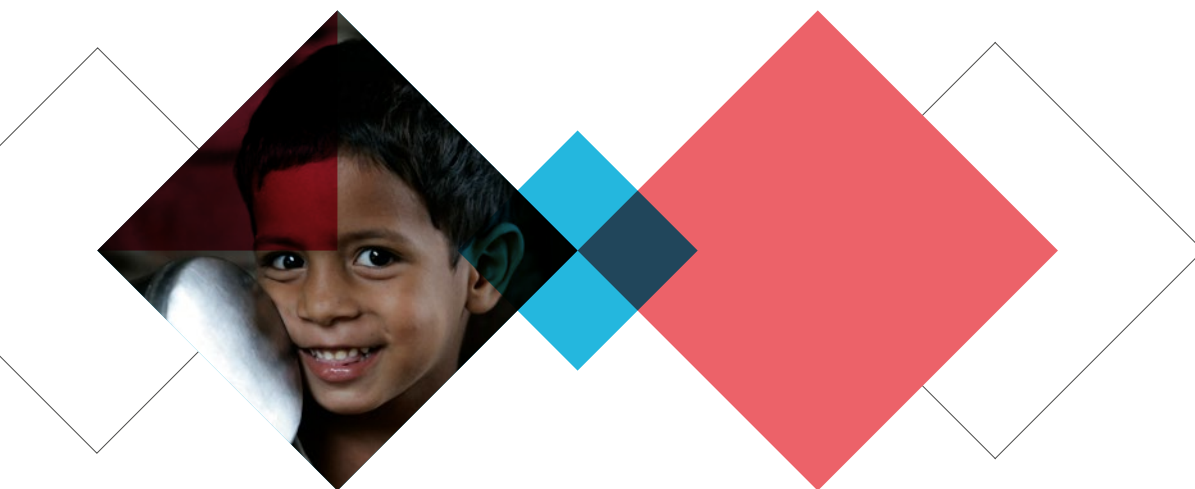
Effective care coordination anticipates crises and can provide urgent responses in the evening and at the weekend by professionals who communicate well and share information from health and care records along the entire pathway.

**7. Technology to support continuity and care coordination.**

Tools and platforms for the exchange of information facilitate adoption of practice interventions and identification of people who have multiple conditions, complex circumstances or have the most to gain from care coordination.

**8. Building workforce capability.**

Developing the skills, strengths and confidence of the wider workforce ensures that they have the competence to fill their potential roles in delivering continuity and care coordination.





## Priority 1: Continuity with a primary care professional

### Description

A positive, continuing relationship with a named primary care professional within the extended primary care team.

“A trusting relationship with someone who knows me.”

### Why this is a priority

Consulting someone who has the time to listen and has information on a patient's previous clinical history is particularly important for those with chronic or complex conditions, who have to consult professionals more often and therefore value continuity of care. People with complex needs place more value on continuity than on speed of access (22), unless they are consulting for a new problem or appointment times are directed by other commitments.

Primary care practitioners generally consider continuity of care to be a core value of their profession and that the continuity of a therapeutic relationship increases their understanding of individual needs and circumstances, so that they can tailor care to what matters to their patient (6). Longitudinal continuity over various episodes of care can be measured with the usual provider-of-care index, which is the proportion of all contacts for primary care with the health professional seen most frequently. People who live in poor areas often have longer waiting times

and shorter consultation times with their primary care providers (2).

Since much of the published evidence is from countries with established community health and primary health care systems, interventions should be adapted for LMI countries with less well developed primary care. In addition to extending universal health coverage, plans to ensure the continuity of consultations with a primary care professional should address challenges of access and transport for people living in remote and rural communities.

### Impact

Barker et al. (6) reported that patients in the United Kingdom who saw the same general practitioner most of the time had 13% fewer admissions to hospital for conditions requiring ambulatory care than patients with less continuous care. The evidence was stronger for older patients and for people with the most primary care contacts.

In primary care in Quebec, Canada, older patients with medium continuity of care, measured with the usual provider-of-care index, made 27% more visits to an emergency department than those with high continuity of care (7).

A telephone survey by the Commonwealth Fund in 2015 in 11 high-income countries showed that a continuous relationship with a primary care professional was associated with a lower probability of poor primary care coordination, defined as at least three gaps in care coordination in the previous two years (15).



## Continuity of primary care provider: patient-centred medical home (PCMH), United States of America

A partnership between patients, families, caregivers and a primary care provider can build trusted relationships with an interdisciplinary team of clinicians and staff connected to the “medical neighbourhood” and the local community. The five core elements are:

- **patient-centred:** support for full involvement of people in planning care and managing and organizing their own care according to their preferences;
- **comprehensive:** holistic care from a team that is accountable for the patient’s physical and behavioural health needs, including prevention and wellness, acute care and chronic care;
- **coordinated:** care that includes specialty care, hospitals, home health care, community services and long-term care;
- **accessible:** shorter waiting times, more flexible in-person hours, electronic or telephone

access at all times and alternative methods of communication through technology; and

- **committed to quality and safety:** quality improvement methods and tools are used to support patients and families in making informed decisions about health.

**Outcomes for people:** personalized care plans, medication review, coaching, advice and peer support.

**System impact:** reductions in one or more measures of cost in 21 studies and a reduction in health care use in 23 studies.

**Challenges:** implementing PCMH with fragmented incentives and fee-for-service payment models that fail to compensate for the scope of PCMH services.

**Enablers:** payment reform to incentivize care coordination; patient communication, telephone and e-mail encounters; population health management and quality improvement.

Source: (11).



## Continuity with community health workers: family health teams, Brazil

Each multidisciplinary health care team in a family health unit serves up to 4000 people in a defined area and includes about six community health workers, each of whom has a caseload of up to 150 families. The community health workers participate fully in team meetings and act as a bridge between patients and their families and the professionals. The health workers visit each family at least once monthly, provide health education, manage low-level health problems, undertake clinical triage, chronic disease management, screening, vaccinations, advice on pregnancy and breastfeeding support, monitor health and report data on households, social determinants and community participation.

**Outcomes for people:** greater satisfaction with health care, better access to family-centred

practice, including dental care and medications; higher breastfeeding and vaccination rates.

**System impact:** more accurate health care registration and statistics, fewer avoidable hospitalizations for conditions that can be addressed through primary care, lower infant mortality, lower fertility rates and higher school enrolment.

**Challenges:** limited induction and education on the job for community health workers, difficulty in recruiting primary care physicians and lack of shared electronic health records.

**Enablers:** pay for performance to increase quality; legislated working week for primary care physicians; plans for an integrated electronic medical record system with interoperability standards.

Source: (43).



## One Family Health, Rwanda

One Family Health, in partnership with the Rwandan Ministry of Health, established a network of rural franchise health posts, owned and operated by local college-graduated nurses with 5–8 years of clinical experience. Each nurse has access to a rent-free, community-owned building in his or her village and generates income by providing primary care services to the people in the village. They are reimbursed for their services through the national community insurance scheme (*mutuelle de santé*) and by co-payments received from patients at the point-of-service. Nurses receive training in national primary care protocols, basic financial management and medicine stock management and spend one week working with a “top-performing” nurse in the network, with continual supervision. They have access to a low-interest loan for infrastructure, renovations, furniture, fittings, essential medical equipment and medicine stocks. Basic features include mobile phones with real-time analytical support, electronic patient

records and programmes for stock ordering, monitoring and billing.

By 2015, 92 health posts were operating in 11 of the 30 districts, providing employment for over 300 health and support workers and nurses. Each nurse may see as many as 40 patients a day. Since 2012, the programme has provided basic health services for common primary care conditions to 550 000 patients through 850 000 consultations.

**Outcomes for people:** less travel time and better access to primary care from nurses in rural villages.

**System impact:** better coverage of primary care at comparable cost and local employment opportunities.

**Challenges:** training and supervision of nurses and co-payments for low-income families.

**Enablers:** funding from community-based insurance scheme, mobile phone technology and analytics.

*Source: (24).*

## Mister Sister mobile clinics, Namibia

In 2008, the “Mister Sister” mobile clinics were launched to improve geographical access and equity for poor rural communities and other vulnerable populations. The mobile clinics collocate and coordinate the delivery of a range of primary care services, including routine vaccinations, diagnosis and treatment of routine communicable diseases, management of minor trauma, testing and follow-up treatment for chronic diseases, voluntary counselling and testing for HIV, antenatal care and health education. Each mobile clinic has a team comprising a registered nurse, an enrolled nurse and a driver to help with administrative tasks. The clinics collaborate with rural employers and farmers, of whom nearly 80% contribute to financing their

employees’ health services, in part through these clinics. Promising results have been obtained in reducing anaemia, increasing vaccination and reducing the number of parasitic infections.

**Outcomes for people:** access to mobile primary care for a range of common problems.

**System impact:** better health outcomes for an underserved population.

**Challenges:** maintaining coverage over difficult geographical areas.

**Enablers:** training for the mobile team to help them understand when and how to refer problems that require specialist support in public health facilities.

*Source: (25).*

## Priority 2: Collaborative planning of care and shared decision-making

### Description

Involving patients, family and caregivers in holistic, anticipatory planning of care with care “navigators”, “connectors” or “health coaches” to help them manage their conditions, build social connections and improve their understanding and adherence to medicines.

“Consultations with staff who really listen enable me to manage my own health and connect me to the support that I need to stay well and achieve what matters to me.”

### Why this is a priority

Continuity of relationships empowers, enables and increases adherence to treatment by creating the conditions for better support of people in understanding and managing their conditions, thus increasing patient satisfaction (26, 27). Continuity of care is particularly important for effective consultations when time is limited (6).

Grinberg et al. (13) describe the association between the “security, genuineness and continuity” of authentic healing relationships and patient motivation, self-management and health-related behaviour. They also noted that continuity and coordination of support from trusted family, friends and community networks

can extend and sustain therapeutic relationships. Therefore, educating caregivers, developing their skills and confidence in enablement and coaching and directing them to community resources can enhance and extend case management.

Differences in health literacy and in cultural attitudes to the exercise of autonomy, both in the population and among health and care providers, influence collaborative planning of care and shared decision-making (28). In some countries, an enhanced role for nurses, “navigators” or volunteers, for example, depends on public and professional attitudes about gender and the readiness to change the traditional dominance of the physician's role.

### Impact

A randomized controlled trial was conducted of elderly people with multiple conditions, who were in the highest quartile of risk for high health care costs and were cared for by 14 primary care teams in Baltimore–Washington, USA (29). Use of guided care (30) to plan care and share decision-making improved the self-reported quality of chronic care in terms of goal-setting, problem-solving and patient activation.

Baker and colleagues (31) studied the effect of anticipatory care planning, which comprised open dialogue with patients and carers to allow reflection, reorientation and recording of values and wishes before deterioration of a patient's health or a crisis for the caregiver. The cohort with anticipatory care plans had significantly fewer hospital admissions, days in hospital and associated costs than the control group matched for age, sex, multiple morbidity indices and secondary care outpatient and inpatient activity.

## Collaborative care planning and shared decision-making: House of Care, Scotland

The House of Care programme in Scotland involves a generic approach attuned to the needs of people with several conditions by:

- collaborative planning of care and support;
- engaged, informed, empowered individuals and carers;
- a professional health and care team committed to working in partnership;
- harnessing informal and formal sources of support and care; and
- organization and arrangements that enable the above.

**Outcomes for people:** greater confidence, control, health and well-being; better experience of care; more self-care; increased knowledge, skills and satisfaction for professionals.

**System impact:** better organization, teamwork and productivity in primary care; cost-neutral at practice level, but better biomarkers may increase health gains.

**Challenges:** limited engagement with community partners, lack of awareness or trust in local community support; need for a cultural shift to relational and interpersonal practice at all levels.

**Enablers:** connecting primary and secondary care professionals with a care pathway or clinical network as the entry point; asset mapping and accessible information on local support for well-being.

Source: <http://www.alliance-scotland.org.uk/health-and-social-care-support-and-services/house-of-care/>

## Care planning and care coordination by Buurtzorg Home Nursing, Netherlands

The Buurtzorg model involves a skilled, generalist, registered nursing team (maximum of 12) based in a neighbourhood of up to 15 000 residents to provide nursing and supportive home care services to 50–60 people at any one time. The self-organized, flat structure promotes the autonomy of nurses in responding to the needs of individuals. The model includes:

- holistic assessment of needs and care planning;
- mapping and involving networks of informal care;
- identifying and coordinating care provided by other formal carers;
- care delivery and support for patients in their social environment; and
- promotion of self-care and independence.

**Outcomes for people:** access to the team at all times; holistic continuity of care from one nurse; local network of support; professional satisfaction in autonomous practice and time with patients.

**System impact:** lower administrative overheads; promotion of self-care, independence and disease prevention; fewer hours of home care but total costs per patient equivalent to those in other models in The Netherlands.

**Challenges:** governance and place within the established external regulatory and supervisory system; ensuring effective interactions with primary care staff.

**Enablers:** digital technology to provide information for direct support of care; home care connected more firmly with other community services and support.

Source: (32).

## Collaborative planning of long-term care: Rand Aid, South Africa

Rand Aid is a registered, non-profit organization in Johannesburg that offers multidisciplinary, personalized long-term care to those who need help to maintain their functional ability. One of the facilities is located in a retirement village, so that residents' care needs can be met as they increase over time.

Integrated care teams of nurses, nursing assistants, social workers, occupational therapists, doctors, recreation officers and volunteers provide a range of services to residents. Older people and their families are involved in planning person-centred

care, and residents are encouraged and enabled to exercise autonomy in their day-to-day lives.

**Outcomes for people:** person-centred care planning and autonomy for a vulnerable group.

**System impact:** managing dependence at home and in the community.

**Challenges:** lack of public funding for long-term care.

**Enablers:** income from retirement villages subsidizes long-term care and outreach services.

*Source: (33).*



## Better health for older people in Africa, United Republic of Tanzania

The project supports approximately 4500 elderly people in four districts in three of the country's regions. Care is provided by 425 trained volunteers who, either directly or through links with other services, ensure that patients' physical, emotional, social and spiritual needs are addressed. Coordinators (typically registered nurses or clinical officers) supervise volunteers, who are selected in consultation with older people's forums and local community and health leaders. The volunteers live near the people they support and are assigned no more than 15 households at a time. They prepare individualized care plans in consultation with their patients and families and coordinate care at home as required, including help with eating, dressing, bathing, medication, companionship and support, as well as accompaniment to medical appointments.

Patients are also enrolled in psychosocial support networks and engaged in programmes that allow them to socialize, prepare and eat meals together, discuss their health needs and learn about topics such as nutrition and exercise from health workers.

**Outcomes for people:** person-centred care planning and psychosocial support.

**System impact:** access to services for poor older people at home reduces their vulnerability to illness and worsening poverty.

**Challenges:** training and skills development for volunteers.

**Enablers:** training, supervision and day-to-day support is co-financed by donors and local governments.

*Source: (33).*





## Priority 3: Case management for people with complex needs

### Description

Care and support are planned, reviewed and coordinated by a practitioner case manager, who follows care over time and addresses both the physical and the mental health needs of people with complex multiple conditions or complicated circumstances.

“Having a named person or single point of contact to coordinate my care.”

### Why this is a priority

Case management is a targeted, community-based, proactive approach that involves case-finding, assessment, care planning and care coordination to integrate services to meet the needs of individuals with chronic conditions (34). The approach is particularly important for people with complex needs, multimorbidity and both physical and mental ill-health (35). It is a complex, dynamic process for addressing frequently changing conditions and circumstances and multiple providers in different sectors, and requires highly skilled health and care professionals who are culturally sensitive and attuned to the local context of health and care.

The necessary skills and competence for effective case management include good communication skills, an ability to solve complex problems, cultural

competence, effective practice in interdisciplinary teams and experience in geriatric and community nursing and coaching for self-management (29, 36). The same competence is required for integrated community case management for child and maternal health, as described in a joint statement by WHO and UNICEF (37).

### Impact

The report of a telephone survey in 11 high-income countries for the study of international health policy by The Commonwealth Fund showed that adults who had a care coordinator were less likely to find that their care was poorly organized and uncoordinated (38).

Follow-up over 18 months of case management for elderly people with several conditions in the Baltimore–Washington DC metropolitan area, USA, showed that the self-reported quality of chronic health care was twice as high as that of people who did not have a case manager (29).

Some studies of case management and collaborative care for cardiovascular disease and cancer showed less depression and better self-management of physical health (39, 40) and cost (41, 42). Reiss-Brennan et al. (10) reported that 80% of people with mental ill-health enrolled in Intermountain Healthcare in the USA were fully supported by case management in mental health integration clinics in primary care. The model resulted in 48% lower medical costs in the 12 months after diagnosis of depression, a 54% lower probability of attending an emergency department, a significant reduction in hospital admissions for ambulatory care and better diabetes control among patients with diabetes and depression.

## Home health case managers, Canada

The Fraser Health system in British Columbia (serving a population of 1.6 million) designed an integrated model of community-based home health case managers for social care and local family physicians. They collaborate in supporting frail elderly people with medical problems who require long-term support at home. The case managers discuss individuals' needs and progress, share information and coordinate care. They use a "resident assessment instrument" to identify those with fewer needs or who are stable and could be assigned to a "surveillance nurse" for telephone follow-up and other actions to maintain their stability.

**Outcomes for people:** faster responses, better-informed assessments of health and needs, proactive identification of emerging issues and risks and ability to live longer in their own home.

**System impact:** doubles the time that community residents are able to remain living at home (avoiding a premature move to institutional care).

**Challenges:** assignment of case managers on the basis of a patient's address, who have no relationship with the primary care physician.

**Enablers:** time to build mutually trusting relationships and possibility of reducing the intensity of surveillance.

*Source: (43).*

## Integrated community case management, sub-Saharan Africa

Three quarters of deaths of children under five are due to pneumonia, diarrhoea, malaria or neonatal problems. Community health workers who are appropriately trained, supervised and supported with uninterrupted supplies of medicines and equipment can identify and treat these conditions. Integrated community case management is an equity-focused, integrated approach to improving access to essential early diagnosis, treatment and referral for malaria, suspected pneumonia and diarrhoea among children aged 2–59 months and also for the treatment of severe acute malnutrition and newborn complications. The eight components of integrated community case management are:

- coordination and policy-making;
- costing and financing;
- human resources: roles and expectations, training plan and strategies for retention and motivation;
- supply chain management: child-friendly medicines and supplies, logistics and information systems;

- service delivery: guidelines for clinical assessment, diagnosis, management, referral, including plans for the rational use of medicines (and rapid diagnostic tests where applicable) and a referral and counter-referral system;
- communication and social mobilization: communication plan, materials and messages;
- supervision and quality assurance tools and resources; and
- monitoring, evaluation and health information systems.

**Outcomes for people:** earlier interventions to diagnose and treat childhood illnesses and malnutrition.

**System impact:** up to 63% reduction in all-cause mortality among children under five.

**Challenges:** scaling up access to the programme.

**Enablers:** partnerships between governments and nongovernmental organizations for funding, training and supply of medicines.

*Source: (37).*

## Case manager and health coach: guided care, USA

With a licence from Johns Hopkins University, a 6-week online training programme is offered to nurses in guided care, which includes coaching, assessment, care planning, carer support and care management for people with common chronic conditions. The nurses work at the interface between primary care and specialty care and communicate with other professionals and providers. They may operate from outpatient or specialty clinic settings but are generally not fully integrated into primary care.

**Outcomes for people:** better communication, continuity and coordination of holistic care among providers and among settings; a single

point of contact for patients and families, with the option of home or telephone contacts.

**System impact:** less use of acute care.

**Challenges:** may depend on a particular professional; overlies established structures and risks becoming more complex unless roles are clarified and engagement is effective.

**Enablers:** effective targeting and matching of the intensity of support with risk prediction tools; closer integration with the mainstream health care delivery system; introduction of nurses who provide guided care to the usual primary or secondary care provider, to develop trust and confidence.

Source: (30).

## Rural Adversity Mental Health Program, New South Wales, Australia

The Centre for Rural and Remote Mental Health, in partnership with rural local health districts in New South Wales, funds local coordinators of the programme to identify individuals and communities that have or are at risk of developing mental ill-health and to inform, educate and connect them with appropriate treatment and support. The coordinators live in the communities and work with local agencies to ensure better mental health outcomes through online self-help, social media, telephone and face-to-face services and by participation in rural community events. The main roles of the coordinators are:

- link: providing a “soft” entry point and personalized navigation of services and support;
- train: tailored mental health training for rural providers and employers across sectors;

- inform: disseminating best practices in mental health; and
- partner: creating new pathways to care and flexible interagency responses.

**Outcomes for people:** culturally sensitive, relevant, locally tailored information on when and how to access support for mental well-being; greater confidence in mental health first aid.

**System impact:** better mental health literacy; more resilient community, ensuring good mental health and recovery.

**Challenges:** building trust, securing cross-sectoral funding and reaching rural and remote areas.

**Enablers:** flexible responses to local community priorities and issues and identifying and mobilizing community champions.

Source: <http://www.ramhp.com.au>

## Priority 4: Collocated services or a single point of access

### Description

A single entry point to access physically collocated services or to access staff and services linked by online or telephone systems.

“I can access the care or support I need by one call, or I have to make fewer appointments as my care providers are together under one roof.”

### Why this is a priority

Physical collocation of staff or support from different services or sectors can improve communication, trust, efficiency and coordination of care and help staff to learn from each other. Thus, specialist staff can acquire generalist skills and community practitioners assume extended roles. Examples include community health centres, polyclinics and ambulatory care centres that offer a range of diagnostic and treatment services by different specialists in a “one-stop-shop” model. Other examples are regional specialist centres with various experts and support services in one hospital. A balance should be achieved between the advantages of facilities with many diverse services collocated and the need people have to develop a relationship of trust with one or a few care providers. The most appropriate model will depend on the common support and services that are frequently required concurrently by many groups of people. Another consideration is the feasibility of building

geographically coherent local networks of providers that can be accessed easily at a single entry point to provide support for both physical and mental health needs.

### Impact

Zapata et al. (44) reported a new model of care in Namibia, in which HIV and sexual and reproductive health services are integrated and delivered with other services at a public health facility. Thus, each health worker can deliver accessible, coordinated, comprehensive services to the same patients over time. The model improved access and communication, reduced stigmatization, increased the quality of antenatal care, reduced waiting times, increased nurse productivity and reduced the time spent in a health facility, without compromising the uptake of services for tuberculosis, HIV, antenatal care or family planning.

The Support and Services at Home programme organized by six affordable housing associations in Vermont, USA (45), coordinates care through community panels that include a “wellness” nurse and a care coordinator, who work with groups of about 100 tenants and local community partners. After three years, there were clear reductions in the use of health care and in costs.

In Japan, a wide range of community hubs offer social space for older people, where relational continuity and coordination of care are ensured by social, carer and peer support networks. These community hubs are based in non-institutional settings, such as open houses, community cafes, dementia cafes, activity centres and drop-in lunch clubs (46). Some hubs offer more support through a 24-h helpline, coordination of respite care or bereavement counselling.

## INNOVCARE centres for rare diseases in Romania and Sweden

The INNOVCARE model blends case management and a one-stop-shop specialist centre for people and families living with a rare disease, creating a bridge between patients, families and the wide range of professionals and health, social care and educational sectors involved in their care. The model offers continuity and coordination to fill gaps in care and to link health, social and community services, including for employment, school, welfare, housing, transport and leisure. The main elements are:

- interdisciplinary care and therapeutic education;
- patient and family support groups;
- summer camps and therapeutic weekends;
- a help and advice line;

- electronic patient registry; and
- research capacity.

**Outcomes for people:** less isolation from peer and family support networks, better access to information and advice about their rare condition.

**System impact:** better transfer of information and expertise in rare diseases among providers.

**Challenges:** low prevalence of rare diseases, so that patients and families are managed at a distance; lack of flexibility of intensive programmes for people who are studying or working.

**Enablers:** digital technologies for communication and coordination to supplement face-to-face contacts; cross-sectoral funding initiatives to develop a national or regional centre and network.

Source: <https://innovcare.eu>

## Community-based health planning and services, Ghana

Compounds of community health planning and services were introduced to improve coverage and access to basic health services for people in remote rural communities in Ghana. On the basis of the model of the concept of primary health care, districts are divided into zones with populations of 3000–4500. In each zone, a resident community health officer provides both mobile and facility health services and collaborates with a community health committee and health volunteers to plan and deliver community health programmes.

**Outcomes for people:** better access to community health care and medicines for people in remote villages.

**System impact:** greater coverage of rural communities with primary health care at the core.

**Challenges:** shortages of medicines, inability of households to pay for services and absences of community health officers.

**Enablers:** more likely use of community health planning and services by women and younger households.

Source: (47).

## Collocated management of depression and HIV, Uganda

A tiered pathway supports task-sharing and a protocol for diagnosing and managing depression in 10 HIV clinics in health care centres in towns and districts near Kampala. Implementation was supported by a 2-day interdisciplinary training schedule for clinical staff, on-site support and mentorship by a psychiatrist. The tiered care pathway involves:

- routine screening for depression at each clinic visit for all patients, with peer support from “expert patients” trained to assist in lower-level tasks and to use a two-item patient health questionnaire;
- diagnosis and evaluation by trained nurses for medically stable patients who are found to be depressed on screening;

- algorithm for prescription and management of antidepressant treatment jointly by nurses and primary care providers; and
- continual supervision by a psychiatrist to ensure quality of care.

**Outcomes for people:** suicide prevention and life-changing treatment for undiagnosed depression.

**System impact:** task-shifting to extend specialist mental health support to underserved communities.

**Challenges:** no direct means to address adherence or the interface with primary care providers.

**Enablers:** trained, experienced peers engage with patients, build triage capacity and continuity of support; continuity of a mentoring relationship between expert patient, nurse and specialist.

*Source: (48).*

## Integrating HIV and sexual and reproductive health services: Epako Clinic, Namibia

HIV and sexual and reproductive health services in Namibia have traditionally been provided in silos, with fragmentation and poor coordination of care. The Epako Clinic introduced a model of IPCHS at the public health facility, including HIV and sexual and reproductive health services. Thus, each health worker can provide comprehensive services to patients, with continuity of care over time and a good external referral system.

Integrated services improve access, reduce stigmatization and improve the quality of antenatal care services by enhancing provider-patient communication, shortening the time that patients stay in the clinic by 16% and reducing waiting times by 14%. In addition, nurse productivity improved by 85%. Patients

spent 24% less time in the facility than they had expected, without compromising the uptake of services for tuberculosis, HIV, antenatal care or first-visit family planning services.

**Outcomes for people:** reduced stigmatization, better access to high-quality services and better antenatal care.

**System impact:** increased flow through the facility and increased nurse productivity.

**Challenges:** maintaining coverage in areas that are difficult to reach.

**Enablers:** training for the mobile team, internal coordination of health workers and procurement of equipment and medicines.

*Source: (44).*

## Priority 5: Transitional or intermediate care

### Description

Teams manage transitions between hospital and home and offer urgent community assessment, treatment, rehabilitation or palliative and end-of-life care as alternatives to readmission to hospital. The teams also help people to understand and manage their medicines at home.

“I return home with the support I need, or I am transferred for care closer to home. Staff review my medicines and check my understanding of any changes. I know how to get urgent advice and treatment in the event of an emergency.”

### Why this is a priority

“Transitional care” and “intermediate care” refer to services during the transitions from hospital to home, from home to hospital and from illness or injury to recovery and independence. In contrast to chronic case management, the service is shorter (usually weeks) and has the clear objectives of preventing readmission, shortening hospital stays and reducing delays in transition to post-acute care.

Care management initiatives for transitions from hospital to home have been the most successful in improving quality and reducing costs (36). As almost

half of readmissions to hospital occur when physicians are not available for “hospital at home” (9), transitional care services are required to cover evenings and weekends to decrease attendance at emergency departments (7).

Transitional care may involve reintegration of patients into employment or into their wider societal role or support in moving to palliative and end-of-life care. This holistic, bio-psychosocial approach to transitional care must be culturally sensitive and involve family carers, employers and local communities.

### Impact

A care transition intervention delivered by an advanced practice nurse who had a caseload of 24–28 patients was associated with lower readmission rates after 30 and 90 days. Lower hospital costs and lower readmission rates for the index condition were seen at 180 days (49).

Patients managed by “hospital at home” in New Mexico, USA, had comparable or better clinical outcomes and greater satisfaction than similar inpatients, resulting in a 19% reduction in costs (9). Patients in a “hospital at home” programme in Catalonia, Spain, had shorter hospital stays and better functional clinical outcomes than a matched cohort managed only in acute and intermediate care hospitals (50).

In a home-based primary care programme for elderly people with severe, disabling chronic illnesses in the USA, an interdisciplinary team offered same-day urgent house visits for exacerbations of the illness to prevent avoidable attendance or admission to hospital (8). Team physicians also managed the hospital episodes to ensure continuity of care. This model led to 17% lower total Medicare costs during a mean follow-up of two years.

## Transitional care service, Singapore

The Aged Care Transition Programme (ACTION), implemented at five general public hospitals in Singapore over four years from 2008, targeted elderly inpatients with significant functional decline or complex medical problems. A team of dedicated nurses and social care coordinators worked with the patients and their families during hospitalization, followed them up with telephone calls and home visits for up to eight weeks after discharge and coordinated placements with appropriate community service providers. The coordinators supported people in expressing their preferences and goals and enabled self-management. Some sites have extended this goal-oriented time-limited team model of care transition to adults with conditions including

cerebrovascular accident, diabetes, pneumonia, dementia or heart failure for up to six months, with a family physician on the team.

**Outcome for people:** better continuity, quality of life and self-rated health; support in managing medicines.

**System impact:** fewer unplanned admissions and emergency department visits for up to six months after enrolment.

**Challenges:** optimizing the handover to primary care of people with continuing complex care needs.

**Enablers:** extending the team expertise to include family physicians.

*Source: (51,52).*

## Noora health education, India

In India, most patients recovering from medical interventions rely on care by family members, who are often ill-equipped to provide support during recovery, resulting in high rates of relapse and complications. Noora Health is a nongovernmental organization that provides patients' families with actionable health information, so that they become more competent and confident in providing safe, effective care. The approach is a "train-the-trainer" certification programme for hospital nurses, who deliver interactive practical health education and awareness to patients and their families, with learning materials that can be used at home to facilitate recovery following treatment. This allows family members to support patients, alleviate their anxiety and ease the transition from hospital to home. The classes are available in several languages and vary

in size (5–30 people) and location (hallways, waiting rooms, wards). The programme has been implemented in 26 hospitals in India, and 50 000 caregivers have been trained.

**Outcomes for people:** carers are more competent and confident in providing safe, effective care at home.

**System impact:** a 3-month pilot study with adult post-surgical cardiac patients showed a 36% decrease in complications, a 23% decrease in 30-day readmissions and a 55% increase in patient satisfaction.

**Challenges:** managing health literacy and language needs.

**Enablers:** materials co-designed with patients, trainers and families.

*Source: (53).*



## Care transitions at the end of life: compassionate communities, Colombia

The New Health Foundation's model for integrated palliative care, introduced in Colombia in 2015, raises public awareness and engagement in caring for people at the end of their lives and in supporting them through collective learning in social networks. Although each network is largely self-organizing, this is facilitated by a "community promoter", whose role is to align social and health care services towards more integrated palliative care and to strengthen the natural support systems of family, friends and neighbours. This is achieved through a dynamic volunteer network that can offer care and companionship at the end of life.

More than 50 organizations (including schools, universities, businesses, nongovernmental organizations and faith groups) in Colombia's largest cities are working together to create a network of compassionate cities. This approach

mirrors the "*todos contigo*" (we are all with you) model in Spain, where there are other examples of compassionate communities and cities. This community-led model is an important driver of a more effective, sustainable network for integrated palliative and end-of-life care.

**Outcomes for people:** less loneliness and isolation; better quality of end-of-life care and support for caregivers; increased community participation and well-being of volunteers.

**System impact:** reduced hospital costs and surgical interventions in the last month of life.

**Challenges:** aligning policy, financial levers and regulation of end-of-life care in the community.

**Enablers:** professional, policy and political leadership and a shared vision.

Source: (54).

## Transitional care for victims of sexual violence, Democratic Republic of the Congo

In a project for survival after sexual violence at Panzi General Referral Hospital in Bukavu, South Kivu, eastern Democratic Republic of the Congo, a one-stop centre was set up for the case management of survivors of violence against women and girls. The centre provides medical, psychosocial, legal and socioeconomic care by a team of doctors, nurses, midwives, laboratory technicians, radiology technicians, pharmacy assistants, lawyers, paralegals, administrative resources and people who coordinate and manage the women's discharge from hospital and reintegration into society. Personalized care based on listening closely to the personal narrative of each abused girl and woman is planned, implemented and documented with the aim of restoring the health of the victims and their reintegration into society. Follow-up home visits are organized to assess and secure reintegration, including provision of family mediation, counselling for couples, psychological support, guidance on medication

use and identification of any additional care required. It also encourages the girls and women to participate in organized community collectives, such as micro-financing initiatives.

One-stop centre models of care have been used globally in a number of settings for survivors of violence against women and girls. A reduced, adapted model functions in some rural areas in low-income countries, in which good-quality services are scaled up during post-conflict reconstruction and recovery.

**Outcomes for people:** coordinated care for complex health and psychological problems and social support.

**System impact:** reintegration of vulnerable girls and women into society.

**Challenges:** managing stigmatization and other cultural issues.

**Enablers:** cross-sectoral interdisciplinary partnership.

Source: (55).

## **Priority 6: Comprehensive care along the entire pathway**

### **Description**

Comprehensive managed care models provide care coordination along the entire pathway, from home, community services, ambulatory and emergency care to hospital care.

“The professionals I see talk with each other and agree who will coordinate my care and support for my whole journey and as my needs change.”

### **Why this is a priority**

Effective care for people who require complex and chronic care and support cannot be provided by single practices in isolation. Instead, effective models of care acknowledge the interconnectedness of practice interventions and deliver priority practices 1–5 together, as integrated, person-centred care tailored to individual needs along their care pathway. For example, systems for reducing the number of hospitalizations, or avoiding institutional care for frail elderly people ensure that care is well coordinated by an interdisciplinary team and that the team meets regularly to evaluate individual needs and to plan, implement and review personalized care plans, including ambulatory care, home care and transitional care (56).

This comprehensive approach is operationalized in clinical or care networks that link practitioners at various sites and organizations to deliver care

for a specific condition, care group or service. Such networks allow virtual integration by collaboration within an agreed governance framework and may improve the effectiveness of care and reduce delays in access to expertise. For example, the former Community Care Access Centres in Ontario, Canada, now provide assessment and care management under agreed accountability within local health integration networks, which are collaborations of organizations that plan, integrate and fund local health care (57).

### **Impact**

Mukamel et al. (58) analysed 23 models of the Program of All-inclusive Care for the Elderly (PACE) in the USA and reported that they resulted in better self-assessed health after 12 months and improved functional outcomes, particularly in programmes with more aides than professionals and greater ethnic and cultural similarity between aides and patients. The mortality rate was lower when there were more professionals, perhaps reflecting a more medically oriented programme. Better outcomes were observed in more mature programmes, suggesting that there is a “learning curve” for selection of the appropriate people, understanding their needs and establishing an effective network of services.

After four years, the Program of Research to Integrate Services for the Maintenance of Autonomy (PRISMA) for frail elderly people in Quebec, Canada, saw significant reductions in functional decline, unmet needs and visits to emergency departments and a statistically nonsignificant reduction in the number of hospital stays. Patient satisfaction and empowerment increased (59). Of 11 coordinated demonstration Medicare programmes followed up for six years, four resulted in fewer hospitalizations of people at high risk for admission (60).

## Health pathways for the elderly, France

The aim of this programme is to improve coordination of health and social professionals to meet the needs and maintain the autonomy of elderly people living at home. The first stage involves about 550 000 people aged  $\geq 75$  years in nine regions of France. Five actions are supported by standardized tools and an information system for secure messaging:

- an interdisciplinary primary care team plans and coordinates care, and the care plan triggers an overall team payment under a new remuneration system;
- a support platform offers professionals, service users and caregivers a single point of access to local health and social services;
- discharge from hospital is planned, transitional care is arranged, and information is transferred at discharge;
- education and guidelines are provided on prevention of common risks (management of medicines and prevention of falls), including in nursing homes; and
- medical prescriptions are reviewed and drugs reconciled by the general practitioner and a pharmacist.

**Outcomes for people:** continuity of preventive primary care; access to transitional care.

**System impact:** structured pathway and education; anticipated reduction in costs for acute care.

**Challenges:** sharing information without an electronic health record; limited integrated working.

**Enablers:** systematic approach after successful pilot testing.

Source: (61).



## Family-centred whole-system navigation: Whānau Ora, New Zealand

Whānau Ora devolves planning and delivery of services to community commissioning agencies, which put *whāna* (families) in control of the services they need. Community partners, providers and navigators work together and with individuals and families to coordinate personalized support and services that are culturally sensitive and build on people's strengths to achieve better health, education, housing, employment and income and increase well-being and participation as well. The community navigators help to identify needs and resolve barriers to accessing services, motivating partners around a common purpose for the individual, family or community.

**Outcomes for people:** continuity of support to navigate health care services; links to a range of

community providers; greater staff confidence in working with Māori families; family- and culturally-sensitive practices.

**System impact:** higher rates of enrolment of patients with prescriptions for asthma, depression or diabetes; better acceptance of vaccination; fewer admissions for rheumatic fever; fewer children experiencing physical abuse.

**Challenges:** complex intervention throughout the public sector; extension to other ethnic communities.

**Enablers:** dedicated funding; devolved commissioning; education on goal-setting; reporting of outcomes.

*Source: (62).*

## Network for diabetes care, Thailand

Thailand has introduced diabetes practice guidelines and a management system to standardize and coordinate care, from prevention to primary care and secondary care. The guidelines and protocols cover risk assessment and screening; assessment of chronic complications and their risks; and clinical care schemes in primary, secondary and tertiary care. The model is supported by a referral system, agreed outcome indicators and regular training for primary care teams and interdisciplinary diabetes care teams delivered by the Diabetes Association of Thailand and the Thai Society of Diabetes Educators. More than 1000 diabetes manager-nurses provide continuity and coordination of care. The Ministry of Public Health developed the concept of "simple diabetes care" to enable village and district public health volunteers to visit patients at home and encourage their adherence to medical advice, treatment and regular follow-

up appointments. A specific training course for foot and wound care has decreased the rate of foot ulcers and amputations.

**Outcomes for people:** continuity and coordination provided by diabetes nurses; support from volunteer coaches and educators; earlier detection of chronic complications; fewer amputations.

**System impact:** earlier detection of diabetes; more patients with diabetes attending health care facilities; increased rate of annual assessments of vascular risk.

**Challenges:** no standardized coordinated care for children and young people yet.

**Enablers:** effective task-shifting to extend care to underserved populations by trained volunteers; local volunteers' engagement with patients and provision of continuity of support.

*Source: (63).*

## Spinal care network in underserved communities, Botswana

World Spine Care has designed an interprofessional, evidence-based, sustainable model of care for the management of spinal disorders in underserved regions. In a pilot study in Botswana, a coordinated network model was created to link spine services in a community health centre with advanced testing and treatment at the local district hospital, supported by collaboration with the National Spinal Surgical Centre. Patients, the community and all health team members were involved in the design, delivery and evaluation of the integrated model, and a partnership with the Government and academic institutions is ensuring long-term sustainability by training the health workforce to oversee clinical and community-based services. Between 2012 and 2014, the programme provided spine care to over 1000 patients,

with 90% managed with local conservative care and 10% referred to hospital. Responses to clinical follow-up questionnaires indicated less pain and disability, and feedback from patients, community members and health providers indicates high satisfaction and consistently high use of the services. The practice has been extended to other jurisdictions and to the Dominican Republic, Ghana and India.

**Outcomes for people:** better symptom management and functioning; continuity of care.

**System impact:** coordination of evidence-based care, closer to home.

**Challenges:** consistent education and training for professionals at all levels in the network.

**Enablers:** good communication systems among professionals and across settings.

Source: (64).

## Priority 7: Technology to support continuity and care coordination

### Description

The availability of information and communication technologies that support the management of people's care makes it easier to ensure continuity and care coordination.

*“My care professionals at home, in the community or in hospital use technology to help me stay well, involve me in my care, share information and coordinate my support.”*

### Why this is a priority

“Technology” encompasses a continuum of telehealth (home monitoring, telemedicine, video consultations), telecare or assistive living equipment, mobile health and well-being applications and online platforms, tools and resources to help people understand and manage their health conditions. e-Health includes the information and communication technology that supports the management of people and communities with a range of health care needs by enabling electronic communication among health and care professionals, patients, carers and multiple providers within health and care systems. New ways of sharing electronic health records ensure the continuity of information for professionals in various care settings.

Information and communication technology can be aligned with predictive risk tools, decision support tools, algorithms and guidelines to target care coordination more carefully for the greatest effect. For example, successful models of care coordination target people at risk of adverse outcomes with tailored decision support and care coordination agreements (65) that

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specify the roles and responsibilities of practitioners and their expected competence, specify the standards of care and provide decision support tools to guide referral, escalation or transfer.

A review of technology in integrated care (66) specified five areas for action:

- data exchange with interoperable electronic medical records;
- engagement of individuals and carers in setting goals and using personal care plans;
- balancing standardization and tailoring to local care pathways and practice;
- data for planning and management within a tiered or stepped care system model; and
- research and innovation for successful implementation.

## Impact

In Canterbury, New Zealand, professionals and organizations throughout the health and care system develop and use electronic “health pathways” and decision support, which have improved care processes and outcomes for people with certain conditions (67).

Comprehensive programmes for multimorbidity or frailty that included decision support for providers showed some evidence of improving health-related quality of life, functioning and satisfaction with care, but no reduction in health services use or costs (68).

A study in Catalonia, Spain, affirmed the value of electronic health information for patients’ perceptions of continuity of care (69).

## National Health Information System, Estonia

Estonia has introduced a system-wide health information system, including electronic medical records, digital imaging, e-prescriptions and a patient portal. The National e-Health Foundation was created in 2005, which facilitated cooperation among groups, each of which had an active role in steering the initiative. The e-Health Foundation and a Government information strategy were complemented by political support, legislation, incentives to encourage adoption by providers and partnerships with the private sector, universities and research organizations to drive innovation. Use of the National Health Information System by health providers and the electronic submission of patient data are now mandatory.

A central Government data exchange platform (X-road) integrates and secures all data. X-road digitally records all interactions to ensure accountability and secure access to information. Central storage means that the National Health

Information System coordinates the health system, connecting providers at all care levels and disciplines electronically for more integrated, streamlined service delivery. An online patient portal increases patients’ involvement in their care, provides individuals with secure access to their health information and offers online appointment booking.

**Outcomes for people:** information continuity; over 90% have health documents in the National Health Information System; empowered by logging in to the patient portal.

**System impact:** timely, efficient communication and decision support.

**Challenges:** professional resistance to adoption of new systems; securing public trust.

**Enablers:** e-Health Foundation support for managing change and ensuring safe sharing of information.

Source: (70).

## Telemedicine for remote diagnostics, Asunción, Paraguay

In Paraguay, people in rural and remote areas did not previously have access to specialist diagnostic services or treatment. A telemedicine system was introduced for three diagnostic services: tomography, electrocardiography and ultrasound, with the addition of electroencephalography from December 2015. Health professionals in first- and second-level health centres are trained to capture images with these medical devices and to transmit them to specialists in tertiary hospitals some hundreds of kilometers away. The specialists review the images, write up their diagnosis and upload the medical report to a controlled system that can be accessed by each health professional to then follow up with the patient. Specialists who participate in the project

receive incentives for each diagnostic report sent to the health service delivery network, so that primary care teams can provide continuity of care to their patients.

**Outcomes for people:** earlier treatment after earlier, better diagnosis; reduced travel time and costs.

**System impact:** coordination and collaboration among primary, secondary and tertiary levels; shorter delays for test results.

**Challenges:** resistance to remote diagnosis; low-speed Internet connection.

**Enablers:** trained technical assistance.

*Source: (71).*

## Priority 8: Building workforce capability

### Description

Education and training are required to strengthen the knowledge, confidence, skills and competence of patients, families, volunteers, communities and all staff involved in delivering continuity and care coordination.

“My care is planned with people who work together to understand me and my carer(s), put me in control, coordinate and deliver services to achieve my best outcomes.”

### Why this is a priority

Building the competence of the health and care workforce to deliver continuity and care coordination prepares them for their specific roles and responsibilities in prevention and enablement, proactive case management, navigation, goal-centred care planning, advocacy and interdisciplinary practice in different professions, teams, settings, specialities and sectors. Appropriate education and training should also be provided for patients, families, carers, volunteers and community partners in providing or supporting continuity and coordination of care.

A report by the WHO Regional Office for Europe (72) on strengthening the workforce for integrated care lists five clusters of competence that are fundamental for ensuring evidence-based, coordinated, continuous care.

- **Patient advocacy:** the ability to promote entitlement and to empower patients to become active participants in their own care.
- **Effective communication:** an ability to quickly establish rapport in an empathetic and culturally sensitive manner.
- **Teamwork:** the ability to function effectively as a member of a team that includes providers, patients and family members, to practise in a way that reflects understanding of team dynamics

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and processes and to build productive working relationships that focus on outcomes for people.

- **People-centred care:** the ability to create the conditions for coordinated care centred on the needs of individuals and their families and reflecting their values and preferences, along the continuum of care and over the life course.
- **Continuous learning:** an ability to demonstrate reflective practice based on the best available evidence and to assess and continually improve care and support delivered as an individual provider or as a member of an interprofessional team.

Workforce development in this area is challenging, as it takes time to build new relationships and to teach health and care professionals to practise

in a different way. It also takes time for patients, families and the public to trust and embrace new, emerging roles as models of care evolve. Changing professional behaviour and sharing and shifting power and control depend on wider social attitudes and require approaches that balance education and social innovation.

Collaborative education must be incorporated into undergraduate and pre-registration training programmes and extend to continuous professional development, to ensure that the current workforce update their skills and work in new, different ways. Innovative, person-centred educational approaches include the design and delivery of training by people who have lived the experience of receiving care.

## Project ECHO

Project ECHO began in New Mexico, USA, to increase the capability of rural primary care clinicians to deliver complex speciality care, initially for people with hepatitis C infection. Primary care and community practitioners receive guided practice mentoring and feedback from specialists in remotely delivered training programmes, coordinated by a facilitator. This learning community ensures that people receive the excellent care they need at home or closer to home through “hub-and-spoke” knowledge-sharing networks led by expert teams conducting multi-point videoconferencing to conduct virtual clinics with community providers. A three-year evaluation of ECHO in managing chronic pain indicated significant improvements in self-reported knowledge, skills and practice. In a study of ECHO for palliative care in the United Kingdom, 70% of community hospice nurses

said that their knowledge had increased, which had improved the care they provided, and that ECHO had given them access to education that would have been difficult to obtain otherwise. This learning model can be readily transferred to other disciplines and services, such as out-of-hours care, assessment and management of frail elderly people, chronic care, intermediate care and rehabilitation.

**Outcomes for people:** high-quality care delivered by their own providers closer to home.

**System impact:** specialist knowledge and capacity built for various professionals and teams.

**Challenges:** dedicated time for educational sessions.

**Enablers:** coordination of remotely delivered training programmes by a facilitator.

*Source: (73, 74).*



## Caregivers' training, Nepal

A rapid, intensive training programme for caregivers was pilot-tested in Nepal in 2016 to promote the benefits of choosing caregiving as a career and to address the lack of availability of well-trained caregivers to support the ageing population of Nepal. The initiative stresses the role of caregivers in providing continuity and quality of care and support at home or in an aged care facility. The training covers many domains of case management, including communication skills, assessment and planning of care, strategies for managing medicines and coping with behavioural changes associated with dementia.

**Outcomes for people:** better quality and continuity of care; better experience of care.

**System impact:** empowerment and employment opportunities for women from unprivileged backgrounds; increased capacity and capability to provide safe, effective care and support.

**Challenges:** appropriateness of training for a wide range of educational and literacy levels.

**Enablers:** nongovernmental organization support; experienced trainers work with local health and care professionals.

*Source: (75).*

## Volunteer community care for the elderly, Costa Rica

Costa Rica has trained elderly retired teachers in local communities to visit impoverished, vulnerable elderly people and facilitate their access to health and social services. The training for the retired community volunteers includes three-day workshops on geriatric health, integrated community care and identifying vulnerable elderly people. Volunteers use a validated assessment tool to identify these people in their communities and report the information to district health officers and the district council. They are expected to make home visits at least once a month or as the need arises and to provide assistance in nutrition, personal hygiene and taking medications.

Between 2010 and 2016, Costa Rica established 50 community care networks, serving about 10 000 people and involving over 5000 volunteers. More elderly people now use the

various long-term care services, particularly those for nutrition and companionship. Establishment of networks of volunteers to support care and facilitate access to local services permitted the Government to scale up long-term care provision for vulnerable groups of elderly people rapidly with relatively little financial support, building on previous experience of Government-supported community health volunteering.

**Outcomes for people:** coordinated support to allow elderly people to remain well at home.

**System impact:** building social capital; earlier intervention to improve the health of vulnerable elderly people.

**Challenges:** developing the roles and responsibilities of volunteers.

**Enablers:** training and supervision of volunteers; infrastructure of referral services.

*Source: (76).*

## Home helpers, Bulgaria

Twelve centres in Bulgaria employ nurses and home helpers to work in interdisciplinary teams to provide health care and support to over 800 elderly people at home. Home helpers assist patients in daily tasks, including personal hygiene, preparing meals and cleaning their houses. As the concept of home care was foreign to Bulgarians, it took several months for leaders to introduce the initiative to communities. Trust and understanding were built gradually by consistent provision of high-quality home care services that enabled patients and communities to experience their associated benefits. A project was initiated between the Bulgarian Red Cross, Government ministries and other stakeholders

in 2012 to establish the necessary political, legal and financial frameworks to fully integrate home care services into the health system and safeguard sustainability.

**Outcomes for people:** coordinated care and support to enable elderly people to remain well at home.

**System impact:** greater capacity for care at home; employment opportunities for home helpers.

**Challenges:** developing new roles and responsibilities for home helpers.

**Enablers:** political, legal and financial frameworks for sustainable funding and training.

*Source: (77).*





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# PUTTING PRIORITIES INTO PRACTICE

## 4. Putting priorities into practice

The eight priority practices listed above indicate *what* should be done to ensure continuity and coordination of care. This section outlines *how* managers and practitioners could take practical steps to implement the priority practices, tailored as required to the local context.

Implementation requires a well managed process of change, with the involvement of all stakeholders – patients, family members and caregivers; professionals, managers and administrators; educational bodies and policy-makers; community partners and volunteers – to secure their support. It also requires strong leadership, aligned governance and accountability, education and workforce development, an enabling technical infrastructure and a judicious use of financial and contractual levers.

A detailed discussion of change management is beyond the scope of this document, however, we have listed some practical actions that could facilitate implementation of the eight priority practices.

### Priority 1: Continuity with a primary care professional

- Make sure that patients are registered with a primary care practice close to their home.
- Balance patient choice with promoting continuity of a relationship with a named professional.
- Provide incentives for appointments of flexible duration, booked in advance, and allow sufficient time for people to talk about what really matters to them.
- Support practice nurses, general practitioners, pharmacists and other primary care professionals in working as a team, with sufficient time to anticipate and address individuals' multiple problems.
- Establish recruitment and retention practices that minimize "burn-out" and staff turnover.

### Priority 2: Collaborative planning of care and shared decision-making

- Create a culture of empathy, compassion and trusting, healing relationships.
- Develop staff skills in conducting person-centred consultations, holistic care planning and enablement.
- Include physical, psychological, emotional and spiritual well-being in care planning.

- Support the health literacy requirements of each individual.
- Provide coaching in health behaviour for patients, family and caregivers to help them with self-management and in building social connections and improving adherence to their medicines.
- Introduce volunteers, community connectors or navigators to increase providers' knowledge about local networks and voluntary resources.
- Direct people to culturally appropriate motivational support in their neighbourhood.
- Match the cultural background of care aides and patients and help them to develop an enabling, social, motivational role.

### Priority 3: Case management for people with complex needs

- Integrate case managers into primary care teams.
- Build relationships and trust among professionals.
- Clarify the role and optimal caseload and ensure regular supervision for case managers.
- Provide coaching in self-management, and educate and support family caregivers.
- Support care managers in developing skill in interdisciplinary team leadership.
- Provide training in assessment, care planning and review of people who are vulnerable or have complex physical and mental health needs.

### Priority 4: Collocated services or a single point of access

- Simplify access to services by using outreach, collocation or virtual network service models.
- Develop local community health centres and hubs that provide health and well-being services.
- Use houses, libraries and leisure facilities as well as conventional health and care facilities.
- Collate sources of local community and voluntary information, advice or support.
- Optimize the number of services that can be accessed without payment for some.

### Priority 5: Transitional or intermediate care

- Introduce transitional care to ensure timely follow-up by people with the right skills.
- Provide assistance in reconciling and reviewing medication, and support self-management.
- Ensure access to urgent advice and review outside office hours.
- Develop “hospital at home” alternatives to emergency admission.
- Ensure that multi-professional assessments, support and interventions are holistic and encourage a return to work and society or, when necessary, acceptance of end of life.

### Priority 6: Comprehensive care along the entire pathway

- Design a system to connect multiple practice interventions along the entire pathway that can be accessed with no (or at least minimum) out-of-pocket payment, which includes:
  - a clear, single entry point within or with primary care;
  - individualized assessments, care planning and reviews;
  - case management;
  - enablement;
  - coordination of home and community services;
  - effective management of care transitions;
- clear protocols, guidelines and accountability along the pathway or within the network of services; and
- financial incentives that are aligned with shared outcomes.

### Priority 7: Technology to support continuity and care coordination

- Introduce interoperable information technology systems or a single care record, with case-finding and decision-support tools for professionals and patients, and sufficient administrative capacity.
- Stratify population risk to identify people with complex needs for care and support who are at a higher risk of adverse outcomes, and adapt the intensity of care coordination to the level of risk.
- Use technology for remote monitoring and consultations.

### Priority 8: Building workforce capability

- Ensure that roles and responsibilities are clear.
- Ensure that all staff, carers, families and volunteers have the right skills and competence.



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### Action at all levels

The priority practices and enabling actions are implemented at different levels of the health and care system. The “rainbow model” (Figure 6), developed

by Valentijn et al. (78), is a conceptual framework for integrated care that can be used to identify the point or level at which specific practices and actions operate.

Figure 6 “Rainbow” model of integrated care

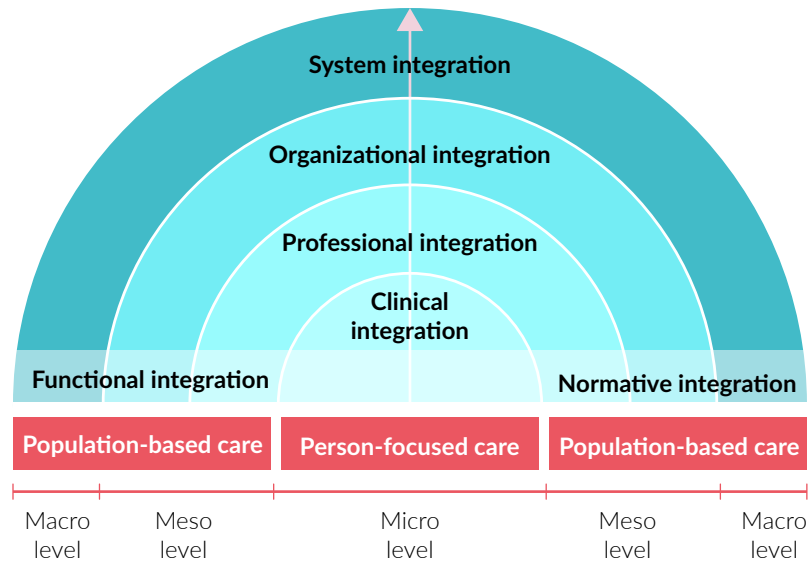


Figure reproduced from (78).



Table 2 lists the points in the system at which continuity and care coordination practices generally exert their influence.

**Table 2** Points in a health system at which continuity and care coordination exert an influence

| Level        | Point                      | Activity  |
|--------------|----------------------------|---|
| <b>Micro</b> | Clinical integration       | Interpersonal continuity<br>Holistic assessment and care planning<br>Coaching and peer support<br>Patient-centred medical home<br>Family health unit<br>Case management |
| <b>Meso</b>  | Professional integration   | Interdisciplinary teams<br>Transitional care services<br>Clinical pathways  |
|              | Functional integration     | Continuity of information<br>Technology-enabled care<br>Decision support  |
|              | Organizational integration | Collocation of services<br>Single point of access<br>Community initiatives  |
| <b>Macro</b> | System integration         | Comprehensive managed care<br>Health and social care pathways<br>Health and social care networks  |









# 5 **CONCLUSIONS**

## 5. Conclusions

Continuity of care and care coordination are broad, interrelated and, at times, overlapping concepts that make significant contributions to how people experience health and care. They are global priorities for reorienting health services towards the needs of people.

Practice interventions that improve the continuity and coordination of care will invariably improve the care experience of people who require chronic support, enhance the experience of providers, improve health outcomes and increase health system performance. Eight priority practices ensure the aspects of continuity required to provide a positive experience of care, smooth, well-coordinated care from several providers, care episodes and settings and contribute to the delivery of IPCHS. These priority

practices are implemented at different levels of the health and care system. Their collective impact is greatest when they are delivered as a “bundle” along the care pathway, ideally within a comprehensive programme or model of care, with primary care as its focus.

The findings from this review of the evidence apply to different care providers in a range of care settings, at all life stages and in all health care systems and economies. In many LMI countries, particularly those with shortages of health care workers and with many dispersed, remote communities, continuity and coordination will depend particularly on informal care, family support, community health workers, donor funding and social innovation.





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# REFERENCES

## 6. References

1. Øvretveit J. Does clinical coordination improve quality and save money? A summary of a review of the evidence. London: Health Foundation; 2011 (<https://www.health.org.uk/publication/does-clinical-coordination-improve-quality-and-save-money>, accessed 6 April 2018).
2. Mercer SW, Watt GC. The inverse care law: clinical primary care encounters in deprived and affluent areas of Scotland. *Ann Fam Med*. 2007;5(6):503–10.
3. Liu S, Griffiths SM. From economic development to public health improvement: China faces equity challenges. *Public Health*. 2011;125(10):669–74.
4. Deeny S, Gardner T, Al-Zaidy S, Barker I, Steventon A. Briefing: reducing hospital admissions by improving continuity in general practice. London: The Health Foundation; 2017.
5. Baker R, Boulton M, Windridge K, Tarrant C, Bankart J, Freeman G. Interpersonal continuity of care: a cross-sectional survey of primary care patients' preferences and their experiences. *Br J Gen Pract*. 2007;57(537):283–90.
6. Barker I, Steventon A, Deeny SR. Association between continuity of care in general practice and hospital admissions for ambulatory care sensitive conditions: cross sectional study of routinely collected, person level data. *BMJ*. 2017;356:j84.
7. Ionescu-Iltu R, McCusker J, Ciampi A, Vadeboncoeur AM, Roberge D, Larouche D et al. Continuity of primary care and emergency department utilization among elderly people. *Can Med Assoc J*. 2007;177:1362–8.
8. de Jonge KE, Jamshed N, Gilden D, Kubisiak J, Bruce SR, Taler G. Effects of home-based primary care on Medicare costs in high-risk elders. *J Am Geriatr Soc*. 2014;62(10):1825–31.
9. Cryer L, Shannon SB, Van Amsterdam M, Leff B. Costs for “hospital at home” patients were 19 percent lower, with equal or better outcomes compared to similar inpatients. *Health Affairs*. 2012;31(6):1237–43.
10. Reiss-Brennan B, Briot PC, Savitz LA, Cannon W, Staheli R. Cost and quality impact of Intermountain's mental health integration program. *J Healthcare Manage*. 2010;5(2):97–113.
11. Nielsen M, Buelt L, Patel K, Nichols LM. The patient-centered medical home's impact on cost and quality. Annual review of evidence 2014–2015. Washington DC: Patient-Centred Primary Care Collaborative; 2016 (<https://www.pcpcc.org/resource/patient-centered-medical-homes-impact-cost-and-quality-2014-2015>, accessed 6 April 2018).
12. Framework on integrated, people-centred health services. Report by the Secretariat (document A69/39). In: Sixty-ninth World Health Assembly, Geneva, 23–28 May 2016 ([http://apps.who.int/gb/ebwha/pdf\\_files/WHA69/A69\\_39-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_39-en.pdf), accessed 30 April 2018).
13. Grinberg C, Hawthorne M, LaNoue M, Brenner J, Mautner D. The core of care management: the role of authentic relationships in caring for patients with frequent hospitalizations. *Popul Health Manag*. 2016;19(4):248–56.
14. Sinclair S, Norris JM, McConnell SJ, Chochinov HM, Hack TF, Hagen NA et al. Compassion: a scoping review of the healthcare literature. *BMC Palliat Care*. 2016;15:6.
15. Penm J, MacKinnon NJ, Strakowski SM, Ying J, Doty MM. Minding the gap: factors associated with primary care coordination of adults in 11 countries. *Ann Fam Med*. 2017;15(2):113–9.
16. Malhotra C, Do YK. Socio-economic disparities in health system responsiveness in India. *Health Policy Plan*. 2013;28(2):197–205.
17. Meng Q, Zhang J, Yan F, Hoekstra EJ, Zhuo J. One country, two worlds – the health disparity in China. *Glob Public Health*. 2012;7(2):124–36.
18. Thompson J. Scoping review: perspectives from primary healthcare in Latin America and the Caribbean on the role of compassion in healthcare users' experience of care and continuity of care [MPH dissertation]. Edinburgh: University of Edinburgh Global Health Academy; 2017.
19. Nakahara S, Saint S, Sann S, Ichikawa M, Kimura A, Eng L et al. Exploring referral systems for injured patients in low-income countries: a case study from Cambodia. *Health Policy Plan*. 2010;25(4):319–27.
20. Freeman GK, Olesen F, Hjortdahl P. Continuity of care: an essential element of modern general practice? *Fam Pract*. 2003;20:623–7.
21. Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair CE, McKendry R. Continuity of care: a multidisciplinary review. *Br Med J*. 2003; 327(7425):1219–21.
22. Cowie L, Morgan M, White P, Gulliford M. Experience of continuity of care of patients with multiple long-term conditions in England. *J Health Serv Res Policy*. 2009;14(2):82–7.

23. Wadge H, Bhatti Y, Carter A, Harris M, Paiston G, Darzi A. Brazil's family health strategy: using community health care workers to provide primary care. New York City (NY): The Commonwealth Fund; 2016 (<http://www.commonwealthfund.org/publications/case-studies/2016/dec/brazil-family-health-strategy>, accessed 4 April 2018).
24. van Niekerk L, Chater R. One family health, Rwanda (Social Innovation in Health Initiative Case Collection). Geneva: World Health Organization; 2016 ([https://www.socialinnovationinhealth.org/downloads/Case\\_Studies/One\\_Family\\_Health\\_SIHI\\_Case\\_Collection.pdf](https://www.socialinnovationinhealth.org/downloads/Case_Studies/One_Family_Health_SIHI_Case_Collection.pdf), accessed 4 April 2018).
25. Uwamahoro T. Bringing primary health care to remote populations through private-public partnerships: the SHOPS Mister Sister experience. Washington DC: United States Agency for International Development; 2013 ([www.shopsplusproject.org/sites/default/files/resources/Mister%20Sister%20Overview.pdf](http://www.shopsplusproject.org/sites/default/files/resources/Mister%20Sister%20Overview.pdf), accessed 4 April 2018).
26. Saultz JW, Albedaiwi W. Interpersonal continuity of care and patient satisfaction: a critical review. *Ann Fam Med*. 2004;2(5):445–51.
27. Mercer SW, Neumann M, Wirtz M, Fitzpatrick B, Vojt G. General practitioner empathy, patient enablement, and patient-reported outcomes in primary care in an area of high socio-economic deprivation in Scotland – a pilot prospective study using structural equation modeling. *Patient Educ Couns*. 2008;73(2):240–5.
28. Yakong, VN, Rush KL, Bassett-Smith J, Bottorff JL, Robinson C. Women's experiences of seeking reproductive health care in rural Ghana: challenges for maternal health service utilization. *J Adv Nurs*. 2010;66(11):2431–41.
29. Boyd CM, Reider L, Frey K, Scharfstein D, Leff B, Wolff J et al. The effects of guided care on the perceived quality of health care for multi-morbid older persons: 18-month outcomes from a cluster-randomized controlled trial. *J Gen Intern Med*. 2010;25(3):235–42.
30. Hostetter M, Klein S, McCarthy D, Hayes SL. Guided care: a structured approach to providing comprehensive primary care for complex patients. New York City (NY): The Commonwealth Fund (Publication 1908, vol.34:1-12); 2016 (<https://www.commonwealthfund.org/publications/case-study/2016/oct/guided-care-structured-approach-providing-comprehensive-primary>, accessed 1 May 2018).
31. Baker A, Leak P, Ritchie LD, Lee AJ, Fielding S. Anticipatory care planning and integration: a primary care pilot study aimed at reducing unplanned hospitalisation. *Br J Gen Pract*. 2012;62(595):e113–20.
32. Gray BH, Sarnak DO, Burgers JS. Home care by self-governing nursing teams: The Netherlands' Buurtzorg model. New York City (NY): The Commonwealth Fund (Publication 1818, Vol. 14); 2015 (<https://www.commonwealthfund.org/publications/case-study/2015/may/home-care-self-governing-nursing-teams-netherlands-buurtzorg-model>, accessed 6 April 2018).
33. Towards long-term care systems in sub-Saharan Africa. Geneva: World Health Organization; 2017:12 (<http://www.who.int/ageing/publications/ltc-series-sub-Saharan-africa/en/>, accessed 4 April 2018).
34. Ross S, Curry N, Goodwin N. Case management: what it is and how it can best be implemented. London: The King's Fund; 2011 ([https://www.kingsfund.org.uk/sites/default/files/Case-Management-paper-The-Kings-Fund-Paper-November-2011\\_0.pdf](https://www.kingsfund.org.uk/sites/default/files/Case-Management-paper-The-Kings-Fund-Paper-November-2011_0.pdf), accessed 6 April 2018).
35. Naylor C, Das P, Ross S, Honeyman M, Thompson J, Gilbert H. Bringing together physical and mental health: a new frontier for integrated care. London: The King's Fund; 2016 ([https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_file/Bringing-together-Kings-Fund-March-2016\\_1.pdf](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Bringing-together-Kings-Fund-March-2016_1.pdf), accessed 5 April 2018).
36. Goodell S, Bodenheimer TS, Berry-Millett R. Care management of patients with complex health care needs. Princeton (NJ): Robert Wood Johnson Foundation; 2009 (<https://www.integration.samhsa.gov/images/res/121609.policysynthesis.caremgmt.brief.pdf>, accessed 6 April 2018).
37. WHO, UNICEF. WHO/UNICEF joint statement. Integrated community case management (iCCM). An equity-focused strategy to improve access to essential treatment services for children. New York City (NY): United Nations Children's Fund; 2012 ([http://www.who.int/maternal\\_child\\_adolescent/documents/statement\\_child\\_services\\_access\\_whounicef.pdf](http://www.who.int/maternal_child_adolescent/documents/statement_child_services_access_whounicef.pdf), accessed 4 April 2018).
38. Doty M, Fryer AK. The role of care coordinators in improving care coordination: the patient's perspective. *Arch Intern Med*. 2012;172(7):587.
39. Sharpe M, Walker J, Holm Hansen C, Martin P, Symeonides S, Gourley C et al. Integrated collaborative care for comorbid major depression in patients with cancer (SMaRT Oncology-2): a multicentre randomised controlled effectiveness trial. *Lancet*. 2014;384(9948):1099–108.

40. Coventry P, Lovell K, Dickens C, Bower P, Chew-Graham C, McElvenny D et al. Integrated primary care for patients with mental and physical multimorbidity: cluster randomised controlled trial of collaborative care for patients with depression comorbid with diabetes or cardiovascular disease. *BMJ Clin Res.* 2015;350:h638.
41. Katon W, Russo J, Lin EHB, Schmittdiel J, Ciechanowski P, Ludman E et al. Cost-effectiveness of a multicondition collaborative care intervention: a randomized controlled trial. *Arch Gen Psychiatry.* 2012;69(5):506–14.
42. Duarte A, Walker J, Walker S, Richardson G, Holm Hansen C, Martin P et al. Cost-effectiveness of integrated collaborative care for comorbid major depression in patients with cancer. *J Psychosomat Res.* 2015;79(6):465–70.
43. Park G, Miller D, Tien G, Sheppard I, Bernard M. Supporting frail seniors through a family physician and HomeHealth integrated care model in Fraser Health. *Int J Integr Care.* 2014;14:e001.
44. Zapata T, Forster N, Campuzano P, Kambapani R, Brahmhatt H, Hidinua G et al. How to integrate HIV and sexual and reproductive health service in Namibia, the Epako Clinic case study. *Int J Integr Care.* 2017;17(4):1.
45. Kandilov A, Keyes V, Siegfried N, Edwards P, Larsen A, Smith K et al. International Support and Services at Home (SASH) evaluation: second annual report. Washington DC: Assistant Secretary for Planning and Evaluation, Department of Health and Human Services; 2016 (<https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-second-annual-report>, accessed 6 April 2018).
46. Hayashi M. Japan: where grassroots support initiatives are growing in empty houses (Housing Learning and Improvement Network Case Study 105). London: Housing Learning and Improvement; 2015 (<https://www.housinglin.org.uk/Topics/type/Japan-Where-grassroots-support-initiatives-are-growing-in-empty-houses/>, accessed 6 April 2018).
47. Wiru K, Kumi-Kyereme A, Mahama EN, Amenga-Etego S, Owusu-Agyei S. Utilization of community-based health planning and services compounds in the Kintampo North Municipality: a cross-sectional descriptive correlational study. *BMC Health Serv Res.* 2017;17:679.
48. Odokonyero R, Wagner G, Ngo V, Nakasujja N, Musisi S, Akena D. Giving “sadness” a name: the need for integrating depression treatment into HIV care in Uganda. *J Int Assoc Provid AIDS Care.* 2015;14(2):108–11.
49. Coleman EA, Parry C, Chalmers S, Sung-joon M. The care transitions intervention. *Arch Intern Med.* 2006;166(17):1822–8.
50. Mas MÀ, Inzitari M, Sabaté S, Santaueugènia SJ, Miralles R. Hospital-at-home integrated care programme for the management of disabling health crises in older patients: comparison with bed-based intermediate care. *Age Ageing.* 2017;46(6):925–31.
51. Wee SL, Loke CH, Liang C, Ganesan G, Wong LM, Cheah J. Effectiveness of a national transitional care program in reducing acute care use. *J Am Geriatr Soc.* 2014;62:747–53.
52. Low LL, Vasawala FF, Ng LB, Chen C, Hock Lee K, Tan SY. Effectiveness of a transitional home care program in reducing acute hospital utilization: a quasi-experimental study. *BMC Health Serv Res.* 2015;15:100.
53. Naydenova E. Noora Health, India (Social Innovation in Health Initiative Case Collection). Geneva: World Health Organization; 2016 ([https://www.socialinnovationinhealth.org/downloads/Case\\_Studies/Noora\\_Health\\_SIHI\\_Case\\_Collection.pdf](https://www.socialinnovationinhealth.org/downloads/Case_Studies/Noora_Health_SIHI_Case_Collection.pdf), accessed 5 April 2018).
54. Herrera-Molina E, Librada S, Lucas MA, Jadad-Garcia T, Rodriguez Z. The New Health Foundation: transforming palliative care. *Eur J Palliat Care.* 2017;24(3):122–5.
55. Mukwege D, Berg M. A holistic, person-centred care model for victims of sexual violence. Democratic Republic of Congo: the Panzi Hospital one-stop centre mode of care. *PloS Med.* 2016;13(10):e1002156.
56. Béland F, Hollander MJ. Integrated models of care delivery for the frail elderly: international perspectives. *Gac Sanit.* 2011;25(Suppl 2):138–46.
57. Breton M, Steele Gray C, Sheridan N, Shaw J, Parsons J, Wankah P et al. Implementing community based primary healthcare for older adults with complex needs in Quebec, Ontario and New Zealand: describing nine cases. *Int J Integr Care.* 2017;17(2): 1–14.
58. Mukamel DB, Peterson DR, Temkin-Greener H, Delevan R, Gross D, Kunitz SJ et al. Program characteristics and enrollees’ outcomes in the Program of All-inclusive Care for the Elderly (PACE). *Milbank Q.* 2007;85(3):499–531.
59. MacAdam M. PRISMA: Program of Research to Integrate the Services for the Maintenance of Autonomy. A system-level integration model in Quebec. *Int J Integr Care.* 2015;15:1–14.
60. Brown RS, Peikes D, Peterson G, Schore J, Razafindrakoto CM. Six features of Medicare

- coordinated care demonstration programs that cut hospital admissions of high-risk patients. *Health Affairs*. 2012;31(6):1156–66.
61. Parcours santé des aînées. Des acteurs coordonnés pour une autonomie préservée [Health pathways for the elderly. Coordinated actors for maintaining autonomy.] Paris: Ministry of Solidarity and Health; 2017 (<http://social-sante.gouv.fr/systeme-de-sante-et-medico-social/parcours-des-patients-et-des-usagers/le-parcours-sante-des-aines-paerpa/>, accessed 5 April 2018).
  62. Whānau Ora. Wellington: Ministry of Health; 2017 (<http://www.health.govt.nz/our-work/populations/maori-health/whanau-ora-programme>, accessed 5 April 2018).
  63. Global report on diabetes. Geneva: World Health Organization; 2016:55 ([http://apps.who.int/iris/bitstream/handle/10665/204871/9789241565257\\_eng.pdf?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/204871/9789241565257_eng.pdf?sequence=1), accessed 6 April 2018).
  64. Haldeman S, Kopansky-Giles. Creating a sustainable model of spine care in underserved communities in Botswana. Granada: Escuela Andaluza de Salud Pública; 2016 (<http://www.integratedcare4people.org/practices/315/creating-a-sustainable-model-of-spine-care-in-underserved-communities-in-botswana/>, accessed 4 April 2018).
  65. Carrier E, Dowling MK, Pham HH. Care coordination agreements: barriers, facilitators, and lessons learned. *Am J Managed Care*. 2012;18(11):e398–404.
  66. Øvretveit J. Digital technologies supporting person-centered integrated care – a perspective. *Int J Integr Care*. 2017;17(4):6.
  67. Timmins N, Ham C. The quest for integrated health and social care: a case study in Canterbury, New Zealand. London: The King's Fund; 2013 (<https://www.kingsfund.org.uk/publications/quest-integrated-health-and-social-care>, accessed 5 April 2018).
  68. Hopman P. Effectiveness of comprehensive care programs for patients with multiple chronic conditions or frailty: a systematic literature review. *Health Policy*. 2016;120:818–23.
  69. Waibel S, Vargas I, Aller MB, Coderch J, Farré J, Vázquez ML. Continuity of clinical management and information across care levels: perceptions of users of different healthcare areas in the Catalan national health system. *BMC Health Serv Res*. 2016;16(1):466.
  70. Developing an integrated e-health system in Estonia. In: *Lessons from transforming health services delivery: compendium of initiatives in the WHO European Region*. Copenhagen: WHO Regional Office for Europe; 2016:107–11 ([http://www.euro.who.int/\\_data/assets/pdf\\_file/0014/303026/Compendium-of-initiatives-in-the-WHO-European-Region-rev1.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0014/303026/Compendium-of-initiatives-in-the-WHO-European-Region-rev1.pdf?ua=1), accessed 5 April 2018).
  71. Lopez P. Telemedicine for improved access to diagnostic services for remote populations in Paraguay. Granada: Escuela Andaluza de Salud Pública; 2016 (<http://www.integratedcare4people.org/practices/288/telemedicine-for-improved-access-to-diagnostic-services-for-remote-populations-in-paraguay-2/>, accessed 4 April 2018).
  72. Strengthening a competent health workforce for the provision of coordinated/integrated health services. Copenhagen: WHO Regional Office for Europe; 2015 ([http://www.euro.who.int/\\_data/assets/pdf\\_file/0010/288253/HWF-Competencies-Paper-160915-final.pdf](http://www.euro.who.int/_data/assets/pdf_file/0010/288253/HWF-Competencies-Paper-160915-final.pdf), accessed 1 May 2018).
  73. Arora S, Kalishman S, Thornton K, Dion D, Murata G, Deming P et al. Expanding access to hepatitis C virus treatment – Extension for Community Healthcare Outcomes (ECHO) project: disruptive innovation in specialty care. *Hepatology*. 2010;52(3):1124–33.
  74. Project ECHO: a revolution in medical education and care delivery. Albuquerque (NM): University of New Mexico; 2018 (<http://echo.unm.edu>, accessed 5 April 2018).
  75. Report of elderly care training in Nepal. Kathmandu: Ageing Nepal, Hope Hermitage Nepal, Ministry of Women, Children and Social Welfare, Ageing Nepal Switzerland; 2016 (<http://ageingnepal.org/wp-content/uploads/2016/11/Report-Basic-Caregiver-Training-on-Ageing-2016.pdf>, accessed 6 April 2018).
  76. Lloyd-Sherlock P, Pot AM, Sasat S, Moralez-Martinez. Volunteer provision of long-term care for older people in Thailand and Costa Rica. *Bull World Health Organ*. 2017;95:774–8.
  77. Developing home care services in Bulgaria. In: *Lessons from transforming health services delivery: compendium of initiatives in the WHO European Region*. Copenhagen: WHO Regional Office for Europe; 2016:79–83 ([http://www.euro.who.int/\\_data/assets/pdf\\_file/0014/303026/Compendium-of-initiatives-in-the-WHO-European-Region-rev1.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0014/303026/Compendium-of-initiatives-in-the-WHO-European-Region-rev1.pdf?ua=1), accessed 5 April 2018).
  78. Valentijn PP, Schepman SM, Opheij W, Buijnzeels, MA. Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. *Int J Integr Care*. 2013;13:e010.







**ANNEXES** ▶▶▶

# Annex 1. Framework on integrated people-centred health services

## Vision

*“All people have equal access to quality health services that are co-produced in a way that meets their life course needs, are coordinated across the continuum of care, and are comprehensive, safe, effective, timely, efficient and acceptable; and all carers are motivated, skilled and operate in a supportive environment.”*

| Strategy 1:<br>Engaging and empowering people & communities   | Strategy 2:<br>Strengthening governance & accountability   | Strategy 3:<br>Reorienting the model of care  | Strategy 4:<br>Coordinating services within and across sectors   | Strategy 5:<br>Creating an enabling environment  |
|---|--|---|--|--|
| Strategic Approaches  |  |   |  |  |
| <p>1.1. Engaging and empowering individuals and families</p> <p>1.2. Engaging and empowering communities</p> <p>1.3. Engaging and empowering informal carers</p> <p>1.4. Reaching the underserved and marginalized</p>  | <p>2.1. Bolstering participatory governance</p> <p>2.2. Enhancing mutual accountability</p>  | <p>3.1. Defining service priorities based on life course needs</p> <p>3.2. Revaluing promotion, prevention and public health</p> <p>3.3. Building strong primary care (PC)-based systems</p> <p>3.4. Shifting towards more outpatient and ambulatory care</p> <p>3.5. Innovating and incorporating new technologies</p>   | <p>4.1. Coordinating care for individuals</p> <p>4.2. Coordinating health programmes and providers</p> <p>4.3. Coordinating across sectors</p>   | <p>5.1. Strengthening leadership and management for change</p> <p>5.2. Strengthening information systems and knowledge management</p> <p>5.3. Striving for quality improvement and safety</p> <p>5.4. Reorienting the health workforce</p> <p>5.5. Aligning regulatory frameworks</p> <p>5.6. Improving funding and reforming payment systems</p>  |
| Potential policy options and interventions (non-exhaustive list)  |  |   |  |  |
| <ul style="list-style-type: none"> <li>• Health education</li> <li>• Informed consent</li> <li>• Shared clinical decision making</li> <li>• Self-management</li> <li>• Knowledge of health system navigation</li> <li>• Community-delivered care</li> <li>• Community health workers</li> <li>• Civil society, user and patient groups</li> <li>• Social participation in health</li> <li>• Training for informal carers</li> <li>• Informal carer networks</li> <li>• Care for the carers</li> <li>• Equity goals into health sector objectives</li> <li>• Outreach programmes and services</li> <li>• Contracting out</li> <li>• Expansion of primary care</li> </ul> | <ul style="list-style-type: none"> <li>• Community participation in policy formulation and evaluation</li> <li>• National health plans promoting IPCHS</li> <li>• Strengthened governance and management at subnational and local levels</li> <li>• Donor harmonization and alignment with national health plans</li> <li>• Decentralization</li> <li>• Clinical governance</li> <li>• Health rights and entitlement</li> <li>• Patient reported outcomes</li> <li>• Performance based financing and contracting</li> <li>• Population registration with accountable care providers</li> </ul> | <ul style="list-style-type: none"> <li>• Local health needs assessment</li> <li>• Comprehensive package of services</li> <li>• Strategic purchasing</li> <li>• Gender, cultural and age-sensitive services</li> <li>• Health technology assessment</li> <li>• Monitoring population health status</li> <li>• Population risk stratification</li> <li>• Improved resources allocated to promotion and prevention</li> <li>• Primary care with family and community-based approach</li> <li>• Gatekeeping/first access to other specialised services</li> <li>• Greater proportion of health expenditure allocated to PC</li> <li>• Home and nursing care</li> <li>• Outpatient surgery and day hospitals</li> <li>• eHealth</li> </ul> | <ul style="list-style-type: none"> <li>• Care pathways</li> <li>• Referral and counter-referral systems</li> <li>• Case management</li> <li>• Sub-national/district-based health service delivery networks</li> <li>• Integration of vertical programmes into national health systems</li> <li>• Health in all policies</li> <li>• Intersectoral partnerships</li> <li>• Merging of health sector and social services</li> <li>• Working with education sector to align professional curriculum</li> <li>• Integrating traditional and complementary medicine with modern health systems</li> <li>• Coordinating preparedness and response to health crises</li> </ul> | <ul style="list-style-type: none"> <li>• Transformational and distributed leadership</li> <li>• Change management</li> <li>• Information systems</li> <li>• Systems research and knowledge management</li> <li>• Quality assurance</li> <li>• Culture of safety</li> <li>• Continuous quality improvement</li> <li>• Tackling health workforce shortages and maldistribution</li> <li>• Workforce training</li> <li>• Multidisciplinary teams</li> <li>• Improvement of working conditions and compensation mechanisms</li> <li>• Provider support groups</li> <li>• Alignment of regulatory frameworks</li> <li>• Sufficient health system financing</li> <li>• Mixed payment models based on capitation</li> </ul> |
| Implementation principles   |  |   |  |  |

Country-led | Equity-focused | Participatory | Evidence-based | Results-oriented | Ethics-based | Sustainable | Systems strengthening

## Annex 2. Methods used

Medline (PubMed), CINAHL and Scopus were searched for systematic reviews on continuity and care coordination with regard to the concepts, their relations and empirical studies of practice interventions.

### MeSH terms

- Continuity of care: Transitional care, Patient handoff, Care pathway, Patient navigation.
- Care coordination: Managed care, Case management, Integrated delivery of health care, Patient care planning, Intersectoral collaboration.

### Inclusion criteria

- reviews published between 2006 and 2017.
- articles describing the implementation or evaluation of interventions for continuity or coordination of care delivered in primary care, community services or across sectors.
- studies indicating a positive effect on personal or system outcomes, satisfaction with care, patient activation or provider's perception of care and satisfaction.

### Exclusion criteria

- articles in languages other than English.
- publications with mainly a conceptual, organizational or system focus that did not report on a specific practice intervention.

### Limitations

Many papers included continuity or care coordination as one of a number of components in practice interventions. Few empirical studies demonstrated their effectiveness at scale. This may reflect the interdependence of complex multidimensional interventions in many care contexts and structures. It is difficult to quantify effects discretely and to attribute changes to specific inputs and outputs in non-linear, system-wide programmes with conventional approaches to evaluation. Attempts to evaluate

time series studies may be limited by regression to the mean, and differences in health literacy, social and functional factors and the human dimensions of practice may limit the value of cohort comparisons.

Most studies of care coordination included some measure of effectiveness, but few reported useful qualitative data on the components of a positive provider and patient experience. Articles on continuity of care were more likely to include rich qualitative descriptions of what patients and providers value but had little quantifiable data.

Most of the published studies were conducted in managed care settings in high-income countries. Some of the studies were published in several formats, amplifying their pre-eminence in the literature. Most published reviews of patient-provider relationships and continuity of care are culturally biased, as they exclude studies from LMI countries on the basis of language or other criteria developed in high-income countries. The analysis was tested against key themes in a scoping review of the literature on the experience of compassion and continuity of care in Latin American and Caribbean countries. A targeted search of the grey literature revealed practice examples from a range of health care systems, including LMI countries, by different providers in a range of care settings and across the life stages.

### Results

The search yielded 81 articles that were retained for full text reading: 21 were systematic reviews, 39 were primary empirical studies, and 21 were grey literature on continuity and care coordination approaches and interventions. These papers were analysed to identify actionable priority practices associated with good quality of care, improved outcomes or a positive patient or carer experience. Tables A2.1–3 illustrate how these actionable priorities align with and support the policy options and interventions within IPCHS strategies 1, 3 and 4 in the WHO Framework on IPCHS (2).

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### IPCHS strategy 1: Engaging and empowering people and communities

The strategy of providing the opportunity, skills and resources that people need to be articulate and to empower users of health services and advocates of a reformed health system seeks to unlock community and individual resources for action at all levels. It aims to empower individuals to make effective decisions about their own health, enable communities to

become actively engaged in coproducing healthy environments and provide informal carers with the necessary knowledge to optimize their performance and support in order to continue in their role. Engaging and empowering people also includes reaching underserved and marginalized groups of the population, to guarantee universal access to and benefit from high-quality services that are co-produced according to their specific needs.

**Table A2.1** Continuity and care coordination interventions aligned with IPCHS strategy 1

| Strategic approach                                       | Selected policy options and interventions proposed in the IPCHS Framework   | Practice interventions identified in the literature review  |
|--|---|---|
| <b>Engaging and empowering individuals and families</b>  | <ul style="list-style-type: none"> <li>• health education</li> <li>• informed consent and shared decision-making</li> <li>• self-management, including personal care assessment and treatment plans</li> <li>• understanding how to navigate the health system</li> </ul> | <ul style="list-style-type: none"> <li>• health coaching</li> <li>• care planning</li> <li>• anticipatory care planning</li> <li>• advanced care planning</li> <li>• care navigators</li> </ul> |
| <b>Engaging and empowering communities</b>               | <ul style="list-style-type: none"> <li>• community-delivered care</li> <li>• community health workers</li> <li>• development of civil society</li> <li>• strengthening social participation in health</li> </ul>  | <ul style="list-style-type: none"> <li>• community health agents</li> <li>• community connectors</li> <li>• compassionate communities</li> </ul>  |
| <b>Engaging and empowering informal carers</b>           | <ul style="list-style-type: none"> <li>• training for informal carers</li> <li>• informal carer networks</li> <li>• peer support and expert patient groups</li> <li>• caring for carers and respite care</li> </ul>   | <ul style="list-style-type: none"> <li>• carer education</li> <li>• peer networks</li> </ul>  |
| <b>Reaching underserved and marginalized populations</b> | <ul style="list-style-type: none"> <li>• integration of health equity goals</li> <li>• provision of outreach services for underserved populations</li> </ul>  | <ul style="list-style-type: none"> <li>• community hubs</li> <li>• telemedicine</li> </ul>  |

### IPCHS strategy 3: Reorienting the model of care

Ensuring that efficient, effective health care services are designed, purchased and provided through innovative models of care that prioritize primary and community care services and the co-production of health. This encompasses the shifts from inpatient to

outpatient and ambulatory care and from curative to preventive care. It requires investment in holistic and comprehensive care, including health promotion and ill-health prevention strategies to support people's health and well-being. It includes respect for gender and cultural preferences in the design and operation of health services.

**Table A2.2** Continuity and care coordination interventions aligned with IPCHS strategy 3

| Strategic approach   | Selected policy options and interventions proposed in the IPCHS Framework   | Practice interventions identified in the literature review  |
|--|---|---|
| <b>Revaluing promotion, prevention and public health</b>   | <ul style="list-style-type: none"> <li>• monitoring population health status</li> <li>• population risk stratification</li> <li>• surveillance, research and control of risks and threats to public health</li> <li>• improved financial and human resources allocated to health promotion and prevention</li> </ul>          | <ul style="list-style-type: none"> <li>• risk stratification to target interventions</li> <li>• community health agents.</li> <li>• assets- and strengths-based practice</li> <li>• family–nurse partnership</li> </ul> |
| <b>Building strong primary care-based systems, particularly for people with complex and/or multiple problems</b> | <ul style="list-style-type: none"> <li>• primary care services with a family and community approach</li> <li>• multidisciplinary primary care teams</li> <li>• family medicine</li> <li>• gatekeeping access to specialized services</li> <li>• greater proportion of health expenditure allocated to primary care</li> </ul> | <ul style="list-style-type: none"> <li>• patient-centred medical home</li> <li>• House of Care</li> <li>• family health units</li> </ul>  |
| <b>Shifting towards more outpatient and ambulatory care</b>  | <ul style="list-style-type: none"> <li>• home care, nursing homes and hospices</li> <li>• repurposing secondary and tertiary hospitals for acute and highly complex care only</li> <li>• outpatient surgery and day hospitals</li> <li>• progressive patient care</li> </ul>  | <ul style="list-style-type: none"> <li>• intermediate care</li> <li>• “hospital at home”</li> <li>• transition services</li> <li>• ambulatory care models</li> </ul>  |
| <b>Innovating and incorporating new technologies</b>   | <ul style="list-style-type: none"> <li>• shared electronic medical records</li> <li>• telemedicine</li> <li>• mHealth</li> </ul>  | <ul style="list-style-type: none"> <li>• technology-enabled care</li> <li>• home and mobile health monitoring</li> <li>• self-management platforms</li> </ul>   |

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### IPCHS strategy 4: Coordinating services within and across sectors

Coordination involves integrating care from providers within and across health care settings, development of referral systems and networks among levels of care and the creation of linkages between health and other sectors. It also includes intersectoral

action at the community level in order to address the social determinants of health and optimize use of scarce resources, including, at times, through partnerships with the private sector. Coordination focuses on improving the delivery of care by aligning and harmonizing processes and information among different services.

**Table A2.3** Continuity and care coordination interventions aligned with IPCHS strategy 4

| Strategic approach                                  | Selected policy options and interventions proposed in the IPCHS Framework   | Practice Interventions identified in the literature review   |
|---|---|--|
| <b>Coordinating care for individuals</b>            | <ul style="list-style-type: none"><li>• care pathways</li><li>• referral and counter-referral systems</li><li>• case management</li><li>• improved care transition</li><li>• team-based care</li></ul>  | <ul style="list-style-type: none"><li>• health navigators</li><li>• care coordination</li><li>• transitional care</li><li>• intermediate care</li><li>• case management</li><li>• clinical and care pathways</li></ul> |
| <b>Coordinating health programmes and providers</b> | <ul style="list-style-type: none"><li>• health service delivery networks</li><li>• purchasing integrated services</li><li>• integrating vertical programmes into national health systems</li><li>• incentives for care coordination</li></ul>   | <ul style="list-style-type: none"><li>• multi-specialty providers</li><li>• interdisciplinary teams</li><li>• general practitioner clusters</li></ul>  |
| <b>Coordination across sectors</b>                  | <ul style="list-style-type: none"><li>• health in all policies</li><li>• intersectoral partnerships</li><li>• merging the health sector with social services</li><li>• working with the education sector to align professional curricula for acquiring new skills</li><li>• integrating traditional and complementary medicine within modern health systems</li><li>• coordinating preparedness and response to health crises</li></ul> | <ul style="list-style-type: none"><li>• clinical and care networks</li><li>• chains of care</li><li>• cross-sector collaboratives</li><li>• community connectors</li><li>• compassionate communities</li></ul>         |

## References

1. Sinclair S, Norris JM, McConnell SJ, Chochinov HM, Hack TF, Hagen NA et al. Compassion: a scoping review of the healthcare literature. *BMC Palliat Care*. 2016;15:6.
2. Framework on integrated people-centred health services. Report by the Secretariat. Geneva: World Health Organization; 2016 ([http://apps.who.int/gb/ebwha/pdf\\_files/EB138/B138\\_37-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/EB138/B138_37-en.pdf), accessed 30 April 2018).

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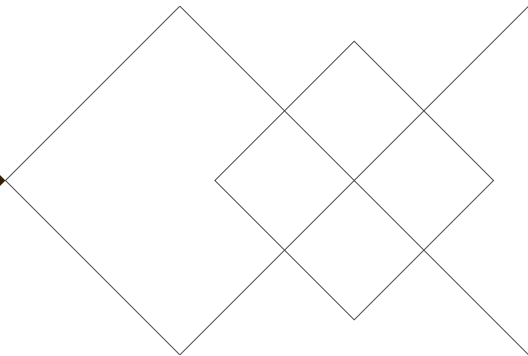












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