



IMPROVEMENT STRATEGIES MODEL: HIGH QUALITY PRIMARY HEALTH CARE: COORDINATION

Led by: **BILL & MELINDA**
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CORE PRINCIPLES OF PRIMARY HEALTH CARE

High-quality primary health care systems consistently deliver services that are trusted and valued by the people they serve and improve health outcomes for all. (1-4) High-quality primary health care is the outcome of strong service delivery and the result of well organized and managed services, backed by a strong system and adequate inputs, such as human resources, infrastructure, and drugs and supplies. This module focuses on what systems, policies, and infrastructure should be in place to ensure the delivery of high-quality primary health care services. Within the PHCPI framework, five core functions underpin high-quality care delivery in primary health care systems. These include first contact accessibility, coordination, continuity, comprehensiveness, and person-centeredness. (2,5) Improving the delivery of these functions is central to obtaining the benefits of person-centered primary care systems. (2,4,6)

High-quality care is often least accessible to the most vulnerable groups, and therefore ensuring the delivery of high-quality primary health care involves taking into account the wide array of individual and/or community socioeconomic characteristics—including poverty, gender, sex or sexual identity, caste, ethnicity, age, and race. (4) These social determinants may have a significant impact on the delivery of care within or between countries, and improvement may require concomitant efforts to improve social disparities.

FIRST CONTACT ACCESSIBILITY

High-quality primary health care can meet 90% of population health needs (1,2) and should be the first point of contact or entry-point to the health system for most health needs, most of the time. To be an effective first point of contact, primary health care must consistently delivery services that users trust, value, and can easily access.

CONTINUITY

Continuity refers to a long-term healing relationship between a person and his or her primary care provider or care team over time. Continuity creates an environment in which patients experience discrete health care events as coherent, connected, and consistent with their medical needs and personal context throughout their life course. There are at least three types of continuity considered to be important for primary care (7): Relational continuity - An ongoing therapeutic relationship between a patient and one or more providers; Informational continuity - The use of information on past events and personal circumstances to make current care appropriate for each individual; and Management continuity - The extent to which services delivered by different providers are timely and complementary such that care is experienced as connected and coherent. It can also be thought of as a consistent and coherent approach to the management of a health condition that is responsive to a patient's changing needs.

COMPREHENSIVENESS

Comprehensiveness refers to the provision of holistic and appropriate care across a broad spectrum of health problems, age ranges, and treatment modalities. (2,8,9) High-quality primary health care treats the 'whole' person within their family, cultural, and community context - delivering a wide range of preventive, promotive, disease-management, and rehabilitative services. (10,11) To address an individual's full range of needs - taking into account the political, economic, social, and environmental determinants of health - a wide scope of services must be available and integrated across levels of care and between the health and non-health sectors.

COORDINATION

Coordinated care is an integrating function that includes appropriate management of care between providers and across levels of care and time. (2,10,12) High-quality primary health care is coordinated around a person's needs and preferences throughout treatment and across various care sites. Coordination ensures appropriate follow-up treatment, minimizes the risk of error, and prevents complications. Coordination of care often requires proactive outreach on the part of health care teams as well as systems for informational continuity.

PERSON-CENTEREDNESS

Person-centered care is organized around the comprehensive needs of people rather than individual diseases. It engages and empowers people in full partnership with health care providers in promoting and maintaining their health. Person-centered care considers a patient's social, career, cultural, and family priorities as important facets of health. Understanding system performance from the perspective of the user of the system is critical to assessing overall function as well as improvement initiatives.

HIGH QUALITY PRIMARY HEALTH CARE: WHAT ARE THE KEY PRINCIPLES?

The following principles should be prioritized simultaneously to improve the design of health systems that promote high-quality primary health care.

PERSON-CENTEREDNESS

While there are many supply-side considerations for first contact access at the system and organizational-level, services that are acceptable (trusted and of-value) from the patient perspective will make it more likely that patients will seek services. Person-centeredness is an important function for improving the capacity of PHC systems to deliver services that are trusted and valued by patients. Person-centered health-systems engage people as equal partners in promoting and maintaining their health in a way that integrates the existing cultural context such as attitudes, beliefs, and concerns. However, in order to be empowered users of the health system, patients must have the ability to make informed decisions and participate in their own care. While there are a varying degrees of improvements to be made to achieve person-centered health systems to the fullest extent, a minimum level of acceptability (trust and value placed in the system) must be in place for primary health care to be utilized as the first point of contact.

PRIMARY HEALTH CARE AS THE FIRST POINT OF CONTACT

The capacity of PHC to effectively serve as the first point of contact hinges on the consistent delivery of high-quality comprehensive care that is trusted and valued by users. However, comprehensive care will not in itself translate to better health outcomes if it is not utilized as first contact care. In order for patients to receive high-quality primary health care, primary care facilities must be both accessible, (facilities are physically present and accessible to populations in terms of geographic proximity, cost, and convenient hours of operation and waiting times) and acceptable (trusted and valued by users). From the system level, this is influenced by the creation and enforcement of national standards and guidelines (across private and public sectors), the skill and motivation of the primary health care workforce, and the availability of inputs, infrastructure, and information systems. From the patient-perspective, utilization is influenced by contextual factors at the individual and local level, including social and cultural norms and beliefs and decision-making capacity. With these foundational elements in place, service delivery activities, such as empanelment and proactive population outreach, help to facilitate primary care as the first point of contact and enable coordination across the continuum of care.

INTEGRATED CARE DELIVERY SYSTEMS

To best meet the complex needs and preferences of populations, primary health care services should be comprehensive. Integrated health service delivery is an approach to strengthening person-centered health systems through the delivery of comprehensive services, coordinated around the needs and preferences of a person throughout their life course and care settings. (13,14) Integrated models that offer a more comprehensive set of skills and services at the frontline (including diagnostic, pharmaceutical, behavioral, and rehabilitative services) can help to increase the efficiency and timeliness of primary health care, increasing the capacity of primary care to serve as the first point of contact (15-17) Integrated models are strengthened by the use of referral networks and interoperable information systems that promote bi-directional communication channels. (18-20)

TOOLS & FRAMEWORKS

This subdomain focuses on the delivery of high-quality primary health care from the perspective of both the user and the system. High-quality primary health care is an outcome within Service Delivery - these functions of PHC are often a result of various elements within System, Inputs, and other components of Service Delivery. The framework below calls for a fundamental shift in the way health services are funded, managed, and delivered to promote universal access to high-quality person-centered care. The framework is adaptable to all countries and health systems.

WHO FRAMEWORK ON INTEGRATED PEOPLE-CENTERED HEALTH SERVICES

The WHO Framework on Integrated People-Centered Health Services proposes five interdependent strategies for the development of responsive people-centered health systems that deliver high-quality, safe, and acceptable services for all. The below strategies are synergistic, a lack of progress in one area may undermine progress in another.

- ▶ **Empowering and engaging people and communities** - This strategy aims to empower individuals (including underserved and marginalized groups) with the opportunities, skills, and resources to make decisions about their own health and be empowered and engaged users of quality health services. It aims to enable communities to be actively engaged in co-producing healthy environments for individuals and be capacitated to delivery informal care that improves the health of communities (training and networks for community health workers, social participation, community delivered care).
- ▶ **Strengthening governance and accountability** - This strategy aims to strengthen governance using a participatory approach to policy formulation, decision-making, and performance evaluation at all levels of the health system. To reinforce good governance, a robust system for mutual accountability across stakeholders and a people-centered incentives system should be in place.
- ▶ **Reorienting the model of care** - This strategy calls for a people-centered approach to primary health care for the design and delivery of efficient and effective services that are holistic, comprehensive, and sensitive to social and cultural needs and preferences.
- ▶ **Coordinating services within and across sectors** - This strategy leverages multisectoral and intersectoral partnerships and the integration of health providers within and across settings and levels of care to promote care coordination. Coordination focuses on improving the delivery of care to better respond to the needs and demands of people.
- ▶ **Creating an enabling environment** - This strategy involves creating an enabling environment to bring all stakeholders together to transform all of these strategies into an operational reality. In order to effect change, this task involves a diverse set of processes in the domains of leadership and management, information systems, quality improvement methods,

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workforce development, legislative and policy frameworks, and health financing and incentives.

The policies and interventions that stakeholders adopt to achieve the realization of these strategies are context-specific, and as such will need to be developed according to the local context, values, and preferences of the country at the national, regional, and local level. An integrated people-centered approach to service delivery is essential for the achievement of five elements fundamental to universal health coverage:

- ▶ **Equity in access** - Everyone has access to the quality services they need everywhere, every time.
- ▶ **Quality** - Care is safe, effective, timely, and responsive to a comprehensive set of needs at the highest possible standard.
- ▶ **Responsiveness and participation** - Care is coordinated around people's needs and preferences and engages people as equal partners in their health affairs.
- ▶ **Efficiency** - Services are cost-effective and achieve an optimal balance of health promotion and in-and-out patient care to avoid duplication and waste of resources.
- ▶ **Resilience** - Health actors, institutions, and populations are capacitated to prepare for and effectively respond to public health crises.

More information on the Framework on integrated, people-centered approach, including the implementation approach and the role of stakeholders, can be accessed [here](#).

What it is

COORDINATION

What others have done

How to get started

How to succeed

The main goal of care coordination is to meet patient's needs and preferences in the delivery of high-quality care. Care coordination involves managing and integrating care across levels of the system and across time in order to ensure patient information is communicated at the right time and to the right people to facilitate the delivery safe, appropriate and effective care. (3) Every patient will need episodic care coordination at some point in their care experience. Care management, however, involves a more specific subset of care coordination - it involves longitudinal, proactive outreach to manage and coordinate care for a defined group of often higher risk individuals. The Safety Net Medical Home Initiative outlines six core functions of care coordination (one of which involves providing care management services) useful for understanding how to coordinate high-quality services to meet the needs and preferences of patients: (4)

- ▶ **Link:** patients with community resources to facilitate referrals and respond to social service needs
- ▶ **Integrate:** behavioral health and specialty care into care delivery through co-location or referral arrangements
- ▶ **Track and support:** patients when they obtain services outside the practice
- ▶ **Follow-up:** with patients within a few days of an emergency room visit or hospital discharge
- ▶ **Communicate:** test results and care plans to patients and families
- ▶ **Provide:** care management services for high-risk patients

Various care coordination strategies that involve involving private sector engagement, multi and intersectoral action for health, and broader policies and infrastructure are discussed in greater detail in the following subsections.

WHAT IS COORDINATION AND WHY IS IT IMPORTANT?

Care coordination is defined by the appropriate management of care between providers and across all levels of care and time, including community-based services. (5-7) Systems that achieve strong coordination of care facilitate appropriate treatment and follow-up and have resultant reductions in unnecessary care and readmissions. (5-7) Coordination of care relies on proactive outreach on the part of health care teams and robust information and communication systems within and across levels of care. Listed below are central questions for stakeholders to consider when planning and implementing system reforms and interventions that prioritize coordination:

- ▶ What are some barriers to care coordination?
- ▶ In what ways can systems promote more coordinated care?
- ▶ What policies, strategies, and infrastructure should be in place to support coordinated care?

Coordination is an important function for creating the linkages between health and nonhealth sectors and networks within and among levels of care (i.e. horizontal and vertical integration) that support PHC in effectively meeting the complex needs of patients throughout their life course (8) Coordination should be prioritized alongside first contact accessibility, continuity, coordination, and person-centeredness to strengthen and deliver high-quality primary health care for all. (5,9)

WHAT ARE SOME BARRIERS TO CARE COORDINATION

Fragmentation in healthcare delivery refers to the systematic misalignment of incentives that lead to downstream inefficiencies, such as the poor or inefficient allocation of resources, that disrupt care

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and can harm patients. (10) Fragmentation often reflects a lack of coordination across levels of care, a roadblock to the delivery of high-quality primary health care. (11) Fragmented health systems adversely affect the quality and cost of care, leading to a loss of continuity and low rates of user satisfaction (11-13) Coordinated systems require the integration of providers across and beyond the health sector, strong information systems and two-way referral networks within and across levels of care, and multisectoral and intersectoral collaboration. (14)

AT THE HEALTH SYSTEM LEVEL

Certain characteristics of the broader health system can inhibit coordination. Competing market incentives among key actors (insurers, providers, and health authorities), for instance payment systems that compensate providers for multiple point-of-care interaction, can disincentivize collaboration and lead to fragmented coordination networks. To promote coordination at the system-level, policymakers must recognize the potential for interfering political and economic interests and restructure market incentive structures and partnerships to promote collaboration. (15) To sustain coordination efforts, policies governing the function of primary care systems should be protected from turnovers in political leadership and conflicts of interest.(15)

ACROSS AND WITHIN HEALTH NETWORKS

The characteristics of a health system can promote or constrain coordination at the point of care (15) Characteristics that lead to poor working conditions (temporary and/or part-time contracts, insufficient time, fee-for-service pay) and inadequate opportunities for professional development can damage [provider motivation](#) and [competence](#) to collaborate and coordinate with each other. (16,17) In addition, robust information systems must be in place to strengthen coordination and comprehensiveness across the continuum of care. More information on the use of information systems is found [here](#). Information related to the infrastructure of information systems is forthcoming in **Information Systems**.

IN WHAT WAYS CAN SYSTEMS PROMOTE MORE COORDINATED CARE?

HEALTH SYSTEMS TRANSFORMATION: INTEGRATED CARE AT THE FRONTLINE

As put forth by the WHO Framework on [Integrated People Centered Health Services](#), care should be coordinated around the comprehensive needs of people, taking into account the political, economic, social, and environmental determinants of health. Reoriented care coordination with PHC as the foundation requires a shift toward a community-based and collaborative model of care that is designed to support the complex needs of the patient at the frontline. The frontline comprises the primary health care system and network of frontline health workers and institutions that serve as a patient's first-contact points with the health system. It also includes channels outside of the formal health infrastructures that empower patients and communities in the co-production of their health and well-being, such as social workers and psychologists. (18) In a PHC-oriented system, the person is at the center of the system, with the majority of their needs met at the frontline. Intersectoral collaborations and networks with the broader health system support PHC in the effort to achieve the best possible health outcomes for a person (2,21,22) Two-way referrals and robust communication networks with the broader health system and/or other sectors (18) aid in appropriate treatment and continuity of care. (19) Two-way referral systems is discussed in greater depth in **what policies, strategies, and infrastructure should be in place to support coordinated care: referral management systems**.

Integration helps to promote coordination in service of comprehensiveness by bridging and aligning the skills, services, and resources necessary to meet the complex needs and demands of patients. Integrated health services are managed and delivered so that patients receive a comprehensive set of services (promotive, disease-management, preventative, behavioral, rehabilitative) throughout their life course, coordinated across different levels of care and care settings within and beyond the health sector. (14) To promote integrated service delivery at the frontline, coordination mechanisms should

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promote linkages between PHC and other sectors either directly involved in the delivery of primary health care, such as private primary care providers, or partnerships with other non-health sectors which harness the potential to increase the capacity of the primary care system to meet the needs and demands of people and communities. In addition, effective coordination mechanisms promote intersectoral action at the community level to address the social determinants of health and ensure the appropriate use of resources, especially in poor-resource settings. (20)The [WHO Technical Series Document on Integrating Health Services](#) outlines four avenues for integration with primary care as the hub for service delivery below:

- ▶ **Integrating primary care and public health:** discussed in greater depth in *Comprehensiveness: proactive comprehensive care*
- ▶ **Integrating primary, secondary and tertiary care:** discussed in greater depth in the sections below on vertical and horizontal integration, with case studies in *Coordination: What others have done*
- ▶ **Integrating dedicated health initiatives into primary care:** discussed in greater depth in *Primary Health Care Policies A1.a*, forthcoming.
- ▶ **Integrating sectors:** discussed in greater depth in below in *coordinating services within and across sectors and private sector participation and engagement*

Integration requires the sustained support of communities and stakeholders at the local, regional, and national level. Steps to integration are country specific and will depend on the capacity of the system (including the availability of resources and political will) to support integrated service delivery. (21) To enable multisectoral collaboration, coordination efforts must be of mutual benefit to all involved sectors. Conflicting interests, competition for limited resources, and a lack of collaborative thinking among actors challenge the creation and sustainability of policies and initiatives that promote coordination. (22,23)

To improve the delivery of care through coordination mechanisms, the [WHO Framework on Integrated People-Centered Health Services](#) outlines a range of strategies, policy options, and interventions designed to integrate care providers within and across levels of care, develop referral systems and care networks, and create multi and intersectoral linkages. More information on optimizing care coordination to support the WHO Framework on Integrated People-Centered Health Services can be found in [the WHO practice brief on continuity and coordination of care](#). Additional strategies for multisectoral and intersectoral collaboration are accessible in the [WHO report on multi and intersectoral action for improved health and well-being for all](#).

COORDINATING ACROSS LEVELS OF CARE THROUGH VERTICAL AND HORIZONTAL INTEGRATION

To promote better coordination of care, health systems can adopt **horizontal and vertical integration** strategies. Comprehensive integration achieves a balance of both horizontal and vertical integration. (24)

Horizontal integration involves collaboration across sectors to promote the delivery of comprehensive primary care. By creating linkages within and beyond the health sector, horizontal integration helps to optimize the use of resources and better meet the comprehensive needs of populations. (14) In this way, coordinating proactive outreach and service delivery efforts can help to promote the more efficient use and management of a comprehensive set of services. (25) More information on multi sectoral and intersectoral action for health is found in the next subheading, **coordinating services within and across sectors**.

Vertical integration involves redefining the role and interactions among primary, secondary, and tertiary facilities to promote coordination and service delivery across levels of care. Most initiatives in vertical integration are conceptualized in terms of referral systems. (26) A variety of bureaucratic obstacles challenge referral systems including provider divisions, differing priorities among levels of

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care, and distinct administrative and budgeting processes. (26) To promote primary care as the first point of contact, referral systems should align with empanelment and gatekeeping structures in place, and promote bidirectional referrals. Strategies to strengthen vertical integration to ensure coordination and continuity can be categorized along three dimensions: (25)

- ▶ **Redefining facility roles within a vertically integrated network:** Redefining the roles of actors will require collaboration and cooperation among health facilities at different levels of the health care system. This process will help to define the range of services facilities will provide and how facilities will support each other across levels of care through supervision mechanisms, technical assistance, and partnerships ([such as accountable care organizations](#)). Clearly defined contracts, payment, and incentive structures should be in place.
- ▶ **Strengthen relationships among providers:** Skill building and technical training opportunities may help to improve the quality of care and competency of providers in facilities, establish interfacility relationships, and promote communication networks across levels of care.
- ▶ **Develop formalized facility networks based on the 3-in-1 principle:** The 3-in-1 principle redefines the role and interactions among facilities toward a common goal based on “one-system-one population-one pot of resources”. Highly developed networks offer a broad continuum of care across all service lines, enabled through information technology (eHealth) tools.

Vertical integration is resource-intensive and contingent on the operations of a coordinated system across levels of care, making it difficult to facilitate in low-resource settings lacking strong referral networks and information systems. Additional information on financial, institutional, and logistical barriers to vertical integration and ways forward are available via the [JLN Vertical Integration Virtual Learning Exchange](#).

Creating effective and efficient horizontal and vertical integration networks is resource and time intensive. Achieving coordination will require a long-term, system-wide commitment to collaboration across and within levels of care and an investment in resources (including strong information technology networks and workforce training programs) to create and sustain this system. More information on strengthening health systems through coordination can be found in the [WHO Framework for Action Toward Coordinated/Integrated Health Services Delivery](#) and the World Bank report on [Health Reform in China](#) More information on coordination activities and broad approaches to improve the delivery of care can be accessed in the [Care Coordination Measures Atlas](#) from the Agency for Healthcare Research and Quality.

PRIVATE SECTOR PARTICIPATION AND ENGAGEMENT

In health care systems with a large proportion of primary care delivery in the private sector, it is essential to ensure that coordination mechanisms are also linked with the private sector to promote continuity of care. However, there are many system-wide challenges and considerations to effective private-sector engagement. Stakeholders should consider the intention and benefit of the partnership, such as whether private services should be complementary or supplementary to public services, the regulatory capacity to oversee private sector development (at local, regional, and national level), and given the for-profit nature of private enterprises, the challenge of attracting private sector expansion in remote and underserved areas. (25) Central policy directives that promote greater private-public collaboration require robust regulatory and supervisory mechanisms, a shared vision for equitable high-quality primary care delivery, and incentives that level the playing field for the entry of the private sector (such as insurance reimbursements equal to public facilities, tax-policies) in both rural and urban areas. (25)

The Joint Learning Network for Universal Coverage has identified five steps to private-sector engagement including: preparing for dialogue with stakeholders by conducting stakeholder analysis, understanding and detailing rationales for engaging the private sector in PHC, actively listening to the

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private sector, finding areas of common ground and first steps for collaboration and trust, and establishing a regular consultative process with joint agenda setting. (27) Additional information on engaging the private sector and possible forms of partnership including a step-by-step guide to mapping private sector providers from the Joint Learning Network can be accessed [here](#) and in the [WHO Technical Series Document on the Private Sector, Universal Health Coverage and Primary Care](#).

IMPROVE PROFESSIONAL WORKING CONDITIONS AND SKILLS

As with any intervention or system that requires behavior change on the part of the provider, it is important for health systems to offer professional development opportunities and a motivating work environment. (15) Unsatisfactory working conditions (such as temporary and/or part-time contracts, insufficient time, inadequate remuneration) and limited professional training opportunities hinder coordination mechanisms by damaging provider motivation and attitudes toward collaboration. (16,17) More information on building professional development offerings and fostering positive work environments can be accessed in [provider motivation mechanisms](#), [provider competence](#), [team-based care organization](#), and [facility management capability and leadership](#).

WHAT POLICIES, STRATEGIES, AND INFRASTRUCTURE SHOULD BE IN PLACE TO SUPPORT COORDINATED CARE?

CARE COORDINATION ACTIVITIES AND APPROACHES FOR PERSON-CENTERED CARE

As discussed above, the main goal of care coordination is to meet patient's needs and preferences in the delivery of high-quality care. In order to effectively coordinate services that are person-centered, patients and families should be full and active participants in their health. This is supported by coordination activities that help to facilitate the transfer of patient needs and preferences to all providers involved in their care, such as proactive care plans and complexity tools. (28) To achieve coordination of high-quality care, patient care activities and information should be well-organized and communicated at the right time and to the right people. (3) Two categories of interventions are commonly used to achieve coordinated care: (3)

- ▶ **Broad care coordination approaches:** Some examples include teamwork, care management (as addressed above), medication management, health information technology, and advanced team care (used to improve health care delivery)
- ▶ **Specific care coordination activities:** Some examples include establishing accountability and agreeing on responsibility, communicating/sharing knowledge, helping with transitions of care, assessing patient needs and goals, creating a proactive care plan, linking to community resources, and working to align resources with patient and population needs

To promote PHC-oriented health systems, care coordination activities should be designed primarily to support care of the patient delivered in their community at the grassroots level rather than localized care as the gateway to higher levels of care. As noted in first contact accessibility. Primary care systems should be the first point of contact for the majority of a person's health needs throughout their life course. (2,21,22) In a health system with primary care as the first point of contact, primary care refers (to hospital or specialists) only those problems not manageable within the primary care setting and coordinates all of the care a person receives at different care settings and levels of care (i.e. specialists).

Additional information on care coordination approaches and activities is described in greater detail in [The Agency for Healthcare Research and Quality page on care coordination](#) with links to actionable resources including the [Care Coordination Quality Measure for Primary Care \(CCQM-PC\)](#), a conceptual framework for care coordination, and the [Care Coordination Measures Atlas](#).

INTEROPERABLE INFORMATION SYSTEMS

An effective, efficient, and integrated information system is vital to the performance of a health system. Poor transfer of patient information among providers, between patients and their care teams, and across levels of care and sectors leads to gaps in the communication of vital information that is essential to the provision of high-quality care (29,30) Coordination relies on the ability of information systems to connect, in a coordinated manner, a wide range of data sources across different settings of care and sectors and reliably communicate this information at the right time and to the right people. (31) This includes the communication of information to higher-levels of care and back to the frontline to ensure continuity of information. The coordinated exchange of information, or interoperability, should enable all providers involved in a person's care to access, exchange, and cooperatively use information with the goal to optimize the health and well being of a person. (19,32) For this reason, it is important to ensure that strong information and communication systems are in place within and across levels of care so patient information is available at the right place and right time to minimize disruptions in their care experience. (31) More information on strengthening information systems is found in the section, **In what ways can systems ensure continuity of care in service delivery: informational continuity**, the module on [Information Systems Use](#), and in **Information Systems** (forthcoming).

REFERRAL MANAGEMENT SYSTEMS - CLOSING REFERRAL LOOPS

Referral management systems are a type of information system that can contribute to improved care coordination. Referral management systems can reduce care fragmentation and improve the quality of referrals and transitions. In order to ensure safe and timely referrals or transitions, any referrals made to support patients beyond the scope of the primary care practice should be well-coordinated across the care continuum. (4) To achieve this, a two-way referral system should be in place. A two-way referral system is organized to establish effective-communication between physicians within the same and at different levels of the health system. The provider receiving the referral is required to refer the patient back to the referring provider (ideally the patient's primary care provider) with clear feedback on the care encounter, any treatment provided to the patient, and what needs follow-up and continued management. (19) The importance of two-way referrals must be emphasized and integrated into the daily practice of providers across all levels of care to ensure their consistent and effective use.

Referral systems may exist at the national level and are often made up of a subset of regional referral networks. In order to effectively manage a referral system, the coverage (including the program or health area), scope (national versus local) and types of actors involved (private, public, primary care, specialty care) must be defined and aligned with logical referral pathways. (33) Defining a clear referral process helps to standardize the ways in which patient information is communicated to relevant providers and track information through appropriate channels over time and ensure a closed referral loop. Referral management systems should track denominators such as the number of referral units, the proportion of referrals fulfilled or not fulfilled, and information on why referrals were not fulfilled on both the patient and provider end (were patients unable to complete the referral due to geographic or financial barriers?). Closing the loop through referral management means tracking whether all relevant patient information is communicated in their care in a timely manner with the desired consultation note in the patient's record following a referral. (34,35)

The configuration of a referral system will vary by setting and range in complexity from a more linear referral system (primary care facilities referring to district hospitals) to a more complex referral system that makes referrals across services within the same facility and across levels of care. Data quality mechanisms with norms and protocols and ongoing training and supervision on the use of the referral system should be in place with standard referral indicators to ensure system performance and appropriate use. Stakeholders can look to the [Referral Systems Assessment and Monitoring Toolkit](#) for guidance on how to effectively assess and monitor the performance of referral systems. Additional information on referral systems can be found on the Institute for Healthcare Improvement's [webpage](#)

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on Closing the Loop on Patient Referrals in Health Care and the Safety Net Medical Home Initiative [presentation](#) on Closing the Loop with Referral Management.

MARKET INCENTIVIZATION OF CARE COORDINATION IN HEALTH SYSTEMS AND WITHIN HEALTH NETWORKS

Financial disincentives to collaborate (fee-for-service payments that incentivize secondary care) among different levels of care and different stakeholders (insurers, private and public providers, health authorities) can lead to a lack of interest and motivation to coordinate and hinder the capacity of health networks to implement effective coordination mechanisms. (15,36,37) More information on incentivizing coordination mechanisms in the context of the health system and market structure of a nation will be discussed further in **Health Financing**.

STRENGTHENING THE PLANNING AND SUPERVISION FUNCTIONS OF HEALTH AUTHORITIES

The broader context and performance of a health system, including processes of organization and authority, the interaction of non-state actors, and local and national needs, influence what actors (at the local, regional, and national network) function to plan, organize, and manage health care networks and perform supervisory and regulatory roles. (15) In order to translate policy into action, the implementation of high-level policy recommendations and initiatives must be supported across all levels of governance and networks within the health system and across sectors. (23) More information on models of governance and national-level strategies for developing unified health initiatives will be discussed in **A1.Governance and Leadership**. More information on adopting a coherent approach to health and well-being across all sectors is found in the [WHO Health in All Policies: Framework for Country Action](#).

What it is

WHAT HAS BEEN DONE ELSEWHERE TO IMPROVE COORDINATION?

What others have done

SOLOMON ISLANDS - ROLE DELINEATION POLICY

How to get started

Eighty percent of the Solomon Islands' population lives in rural areas. However, like many LMICs, the Solomon Islands experiences a disproportionate concentration of resources and qualified staff in urban areas. In addition, many of the rural health centers in place to serve rural populations are run down and require a significant upgrade, repair, or renovation. (38) While some new primary care facilities are being built in rural areas (largely driven by political interests and private funding), these are not integrated with national health services priorities. Consequently, a large percentage of the population travels to the National Hospital for primary health services, experiencing significant barriers to the delivery of timely, coordinated, and geographically accessible care. (38)

How to succeed

In response to these challenges to accessing to quality care, the Solomon Islands' developed the Role Delineation Policy and Service Delivery Packages in 2011. The Role Delineation Policy defines the range and services (defined in the Service Delivery Packages) to be delivered at different levels of care.

The Role Delineation Policy has undergone a series of reforms to address financing, human resource, and governance issues, including the organizational structure reform. (39) This reform focuses on several measures that promote the delivery of quality care across settings of care through standardized measures including defined roles and reporting lines, integration mechanisms for efficiency gains, and improved management at the health zone level. (39) The Service Delivery Packages define the services required for six levels of health facilities - rural health centers, area and urban health centers, general hospitals, and national referral hospitals. These packages set guidelines for staffing, infrastructure, equipment, essential registers, manuals, guidelines and reforms, and essential medicines. (38) Both the RDP and STP are embedded within the National Development Plan and the National Health Strategic Plan (2016-2020) (39) to help stakeholders at the national, regional, and local level guide resource allocation, what services to deliver, and what services to expect.(38) Taken together, the Role Delineation Policy and Service Delivery Packages work to promote better integration and coordination mechanisms for the provision of high-quality care across levels of the health system.

COSTA RICA - EBAIS MODEL

Strong coordination of care including through proactive outreach and informational continuity can facilitate more appropriate treatment across the continuum of care. (5-7) Costa Rica has made great strides to promote coordination across levels of care with primary care systems as the first point of contact. The Costa Rican EBAIS model (*Equipos Basicos de Atencion Integral de Salud*) created health networks throughout the country, organized into Health Areas - the major unit of primary care. (40,41) Each Health Area has between five and fifteen EBAIS multidisciplinary teams, or Integrated Primary Health Care Teams, providing comprehensive preventive, promotive, and curative care to empaneled populations of 30,000 to 110,000 citizens. (42) The EBAIS has two policies that promote primary care as the main system for service provision, gatekeeping and dual referrals. Small groups of Health Areas generally serve as the gatekeeper to secondary and tertiary clinics through standardized regional referral networks. (41) The dual referral system refers patients back to primary care for management to minimize demand on secondary and tertiary services. These gatekeeping and dual referral systems promote coordination across levels of care with primary care facilities as the primary source of care.

XIAMEN, CHINA - JOINT MANAGEMENT BY THREE PROFESSIONALS REFORM

China has worked to establish multidisciplinary teams across levels of care as a part of the Joint Management by Three Professionals (JMTP) reform in the city of Xiamen. The JMTP leverages a tiered health service delivery approach to the management of chronic disease with a focus on increasing

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patients' use of community resources and strengthening systems for role delineation. (43) The JMTP reform tackled this in two ways, strengthening diagnostic and treatment capacities at the PHC level and implementing standardized care pathways across community centers. Multidisciplinary care teams are the vehicle for care management of complex conditions. These teams consist of a specialist, general practitioner, and health manager to provide preventive, promotive, curative, behavioral and rehabilitative services at the community level. Each team member has a defined role that serves to enhance patients' equitable access to the diagnosis and treatment of complex conditions. In this hierarchical role structure, the specialist determines the diagnosis and treatment plan, the general practitioner implements the plan and conducts daily monitoring, and the health manager handles health education and behavior-related interventions. To promote community-based care, these teams conduct home visits and encourage the use of community health centers as the usual source of care. (43) When necessary, the general practitioner provides two-way referrals to secondary and tertiary hospitals in accordance with standardized referral pathways, reinforcing gatekeeping structures that promote primary care as the first point of contact and main coordinator of care.

WHAT QUESTIONS SHOULD BE CONSIDERED TO BEGIN IMPROVEMENTS?

The questions below may be a useful starting place for determining whether coordination is an appropriate area of focus for a given context and how one might begin to plan and enact reforms:

WHAT SYSTEMS ARE IN PLACE FOR HORIZONTAL AND VERTICAL INTEGRATION?

To promote better coordination of care, health systems can adopt **horizontal and vertical integration** strategies. Comprehensive integration achieves a balance of both horizontal and vertical integration. **Horizontal integration** involves collaboration across sectors to promote the delivery of comprehensive primary care. By creating linkages within and beyond the health sector, horizontal integration helps to optimize the use of resources and better meet the comprehensive needs of populations. **Vertical integration** involves redefining the role and interactions among primary, secondary, and tertiary facilities to promote coordination and service delivery across levels of care. Most initiatives in vertical integration are conceptualized in terms of referral systems. To promote primary care as the first point of contact, referral systems should align with empanelment and gatekeeping structures in place, and promote bidirectional referrals.

IN WHAT WAYS ARE PROVIDERS SUPPORTED TO ENCOURAGE COORDINATION OF CARE? FOR INSTANCE, DO THEY RECEIVE ADEQUATE REMUNERATION AND PROFESSIONAL DEVELOPMENT OPPORTUNITIES AND ARE THERE INFORMATION SYSTEMS IN PLACE TO STREAMLINE COMMUNICATION?

The characteristics of a health system can promote or constrain coordination at the point of care. Characteristics that lead to poor working conditions (temporary and/or part-time contracts, insufficient time, fee-for-service pay) and inadequate opportunities for professional development can damage [provider motivation](#) and [competence](#) to collaborate and coordinate with each other. In addition, robust information systems must be in place to strengthen the capacity of providers to coordinate across the continuum of care.

WHAT INCENTIVES ARE OR ARE NOT IN PLACE TO PROMOTE COLLABORATION BETWEEN KEY ACTORS (INCLUDING INSURERS, PROVIDERS, AND HEALTH AUTHORITIES)?

Competing market incentives among key actors (insurers, providers, and health authorities) can disincentivize collaboration and lead to fragmented coordination networks. To promote coordination at the system-level, policymakers must recognize the potential for interfering political and economic interests and restructure market incentive structures and partnerships to promote collaboration, taking into account conflicting interests, competition for limited resources, and developing a culture of collaboration. To incentivize collaboration, coordination efforts must be of mutual benefit to all involved sectors toward a shared vision for collaboration. To sustain coordination efforts, policies governing the function of primary care systems should be protected from turnovers in political leadership and conflicts of interest.

IS A SIGNIFICANT AMOUNT OF PRIMARY CARE DELIVERED BY THE PRIVATE SECTOR? IF SO, HOW ARE THEY INVOLVED IN THE COORDINATION OF CARE?

In health care systems with a large proportion of primary care delivery in the private sector, it is essential to ensure that coordination mechanisms are also linked with the private sector to promote continuity of care. In order to effectively involve the private sector in the coordination of care,

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stakeholders should consider the intention and benefit of the partnership, such as whether private services are being provided as complementary or supplementary to public services, the regulatory capacity to oversee private sector development (at local, regional, and national level), and given the for-profit nature of private enterprises, the challenge of attracting private sector expansion in remote and underserved areas.

WHAT ELEMENTS SHOULD BE IN PLACE TO SUPPORT EFFECTIVE IMPROVEMENTS?

INFORMATION SYSTEMS USE AND INFORMATION SYSTEMS

Like continuity, coordination relies on information systems with broad capacities to track and manage the health of a patient. It is important to ensure that strong information systems are in place, including civil registration and vital statistics and electronic health records systems, within and across levels of care to ensure a patient's information is available at the right place and the right time to minimize disruptions in their care experience. (31) Information systems should produce reliable, complete, and timely information that ensures interoperability from a wide range of data sources and continuity of patient information. (31) The effective use of information systems empowers and engages patients and improves communication among team members to promote coordination. (44-46) Interoperability of data management systems across facilities and services is an essential functionality to ensure that information systems can effectively collect, analyze, and share critical information to all relevant providers and care teams.

FACILITY MANAGEMENT CAPABILITY AND LEADERSHIP

To facilitate effective coordination within and across facilities, leaders should have relevant skills related to coordination of operations, external/consumer relations, target setting, and human resources. (47) Strong leaders must have or develop particular competencies and personality traits to effectively manage and engage the workforce to motivate a culture of collaboration. Managers should be properly equipped with the tools, systems, and skills to productively assess the health workforce within a facility and provide supportive supervision. Managers and leaders may represent different individuals or groups of individuals within a facility depending on the size and structure.

QUALITY MANAGEMENT INFRASTRUCTURE AND PRIMARY HEALTH CARE POLICIES

Central policy directives that promote coordination across all levels of health care and between health and nonhealth sectors require robust regulatory and supervisory mechanisms and a shared vision for high-quality primary health care. (25) In order to translate policy into action, the implementation of high-level policy recommendations and initiatives must be supported across all levels of governance and networks within the health system and across sectors. (23) More information on adopting a coherent approach to health and well-being across all sectors is found in the [WHO Health in All Policies: Framework for Country Action](#).

As patients transition across levels and sites of care within and beyond the health sector, it is important for quality management infrastructure to be in place to enable care coordination. To facilitate the coordination of high-quality primary health care across providers, facilities, and sectors a national quality improvement plan that integrates standardized care plans, diagnostic protocols, training programs, and accreditation systems should be in place.

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