

IMPROVING EFFICIENCY IN THE HEALTH SECTOR:
An Assessment of Vietnam's Readiness for Integration of Care

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Health, Nutrition, and Population Global Practice
World Bank Group

July 2020



The Government of Japan



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Contents

Acknowledgments.....	iii
Acronyms.....	iv
Executive Summary	1
1. Introduction	5
2. Integrated care: Conceptual framework	9
3. Methodology.....	11
i. Research objectives.....	11
ii. Joint Learning Network Vertical Integration Assessment Tool	11
iii. Program and site selection	12
iv. Timeline.....	14
v. Limitations of the study.....	14
4. Key findings and discussion	15
i. Macro environment	15
Legislative and policy environment	15
Governance, management, and leadership	16
Financing and payment	18
Human resources	20
ii. Micro environment	21
Organizational forms	21
Role of primary health care	23
Interactions among providers	25
iii. Enablers.....	27
Information environment and digital health	27
Performance management and monitoring and evaluation	28
5. Key takeaways and suggested actions.....	30
Annex A Review of Vietnamese Policy Documents for Relevance to Care Integration.....	34
References.....	36

List of Figures

Figure 1: Share of Population Age 65 or Older, Vietnam versus Comparator Countries, 1950–2070	5
Figure 2: High and Increasing Share in the Use of Hospital Care for Outpatient Visits, 2004–2016	7
Figure 3: Schematic of Vietnam's Health Service Delivery Network.....	17

List of Tables

Table 1: Top Ten Causes of Disease Burden in Vietnam, 1990–2017.....	5
Table 2: Integrated Care Typology and Definitions	9
Table 3: Key Domains of Integrated Care	10
Table 4: Key Features of Noncommunicable Disease Programs in Bac Giang and Ha Nam Provinces ..	13
Table 5: Provider Payment Methods in Vietnam.....	18
Table 6: Performance Metrics for Integrated Care.....	29

List of Boxes

Box 1: Turkey's Approach to Patient Empanelment in Its Health Transformation Program.....	24
Box 2: Governance and Leadership for Integrated Care: Examples from the United States, Europe, and Asia	30

Acknowledgments

This report was prepared by Hui Sin Teo and Dao Lan Huong, with inputs from Khuong Anh Tuan, Hien Van Pham, Giang Nguyen Hoang, Jerry La Forgia, Sarah Bales, and Caryn Bredenkamp. The activity was carried out under the oversight and management of Enis Barış. The authors would like to thank peer reviewers Ian Forde and Anna Koziel for their valuable comments. The report was edited by Shazia Amin.

The authors gratefully acknowledge the collaboration and support of staff from the Ministry of Health, the Health Policy and Strategy Institute, and the provinces of Bac Giang and Ha Nam in Vietnam.

Generous funding from the Government of Japan through the Policy and Human Resource Development (PHRD) Trust Fund Program for Universal Health Coverage is gratefully acknowledged.

Suggested citation:

Teo, Hui Sin; Huong, Dao Lan. 2020. Improving Efficiency in the Health Sector: An Assessment of Vietnam's Readiness for Integration of Care. World Bank, Washington, DC. © World Bank.
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Acronyms

ACOs	Accountable Care Organizations
ALOS	Average length of stay
CHS	Commune health station
COPD	Chronic obstructive pulmonary disease
DALYs	Disability-adjusted life years
DHC	District health center
DOHA	Direction of Healthcare Activities
DRG	Diagnostic-related Group
FFS	Fee-for-service
GDPM	General Department of Preventive Medicine
HSPI	Health Policy and Strategy Institute
ICP	Integrated care pathway
JADR	Joint Annual Health Review
JLN	Joint Learning Network
LMIC	Lower-middle-income country
MDG	Millennium Development Goal
MOH	Ministry of Health
MSA	Medical Service Administration
NCD	Noncommunicable disease
OECD	Organisation for Economic Co-operation and Development
PHC	Primary health care
SDG	Sustainable Development Goal
VSS	Vietnam Social Security

Executive Summary

Vietnam is undergoing rapid demographic and epidemiological transitions. It is one of the most rapidly ageing countries in Asia, and the burden of disease is dominated by noncommunicable diseases (NCDs) such as cancers, hypertension, and diabetes. Vietnam has achieved impressive improvements in health outcomes over the last few decades; however, the way forward will need to be different, given the changing health needs of the population.

These transitions imply a shift in the health needs of Vietnam’s population away from acute episodic care, toward disease management for NCDs and chronic conditions. Population ageing and an increasing burden of NCDs and chronic conditions are associated with an increase in multimorbidity and functional decline. There will also be a growing need for health and long-term care for the elderly. Today, Vietnam’s health service delivery system is hospital-centric and focused on episodic curative care. Hospital overcrowding has been a major problem for many years. This is both inefficient and ill-suited to long-term, continuous management of care in a person-centered way. To better serve the health needs of its population, Vietnam will need to improve health system efficiency—specifically, by shifting low-complexity services out of the hospital setting to reduce hospital overcrowding. It will also urgently need to improve quality of care at the primary health care (PHC) level, especially for NCDs and chronic conditions, as poor quality of care is currently a barrier to utilization of PHC.

Globally, there has been a push toward service delivery models that are more responsive to individual health needs and can deliver the right care in appropriate settings. This is more convenient for patients, and more efficient from the perspective of the health system. Such service models typically promote a person-centered approach and involve systematic ways for providers at different levels to interact and communicate with one another, to facilitate patient care. Broadly, this is known as “integrated care.” Putting this into practice in Vietnam would entail a new orientation in health service delivery—one that focuses on right-siting of care out of the hospital setting to the PHC level and other intermediate units, and one that provides effective management and continuity of care to patients as they move through the health service delivery system.

The objective of this report is to provide suggestions on how Vietnam’s health service delivery system can be designed to promote integration across providers and to establish right-siting of care. Based on a synthesis of theoretical frameworks on key elements needed for effective policy reform and implementation of integrated care, the assessment is structured around three key questions:

- What is the policy and enabling environment in Vietnam in support of care integration, and what are the gaps?
- Does the current health service delivery model apply any elements of care integration (specifically, interactions and communications across provider levels to facilitate right-siting of care)?
- How can Vietnam improve the way it delivers health services using the principles and design features of integrated care? In practical terms: what policies, interventions, and enablers would Vietnam need to put in place to facilitate care integration?

The assessment found that Vietnam has a significant way to go to be able to deliver integrated care. Many health system features urgently need to be reformed to facilitate the right-siting of care and to enable the delivery of person-centered care for those with complex chronic care needs.

At the macro level, critical features of Vietnam’s health system are neither comprehensive nor cohesive enough to facilitate care integration. Key areas and issues include the following:

- From the policy and legal perspective, the concept of care integration is peppered across a range of government documents. However, they do not come together to constitute a cohesive policy on integrated care. There are also gaps in the legal framework, such as on patient choice and data sharing that must be addressed to operationalize care integration.
- Governance and management of health services continue to follow the hierarchical public service administrative structure, with weak accountability mechanisms for achieving outcomes. New governance and management arrangements will need to be developed to improve provider responsiveness and accountability.
- On financing, current provider payment mechanisms do not promote a cooperative and complementary relationship among various levels of care. Significant reforms would be needed to align incentives toward right-siting of care. Financing could also be used as a lever to improve performance and accountability.
- Human resource policy will need to focus on improving services and health worker competencies at the PHC level, building on family medicine principles that Vietnam is already adopting. Training programs currently do not promote or teach elements of care integration.

At the micro level of frontline service delivery, there is limited use of integrated care design elements and tools. Specifically, the following gaps remain:

- There are no organizational designs for integrated provider networks. Providers at different levels of care remain separate in administrative and managerial arrangements. While there is clear role delineation among providers, there is no concept of joint management of patients.
- The critical role of PHC as the first point of contact for patients is constrained by the lack of empanelment and gatekeeping. PHC facilities are only able to provide continuity of care to the extent that patients choose to come to their facility for successive visits. Many patients bypass PHC, especially at the commune level, due to poor quality of care.
- Tools to facilitate interaction among providers have not been put in place yet. Most interaction among providers relates to technology transfer and professional support provided by higher to lower levels of care. Providers have not established multidisciplinary teams for patient transitions and for follow-up care, and there is no practice of using shared care management plans. Clinical guidelines are applied unevenly, and they lack definition on where and who should deliver each intervention or service—which an integrated care pathway would do.

Key enablers of integrated care are also not in place yet. There are significant gaps in information systems. The lack of a unique identification number for each citizen hinders the development of a single health record per person, which is crucial to facilitating continuity of care and data sharing across providers. Information systems are duplicated and fragmented, and providers are neither allowed nor required to share patient information among one another for purposes of coordinating patient care. There is a wealth of data that has not been used to inform patient care and policy choices. Finally, a much stronger monitoring and evaluation framework will need to be developed to understand health system performance to strengthen the case on why integrated care is critical for Vietnam and to evaluate the impact of integrated care reforms.

What would it take to initiate integrated care practices in Vietnam? Implementing integrated care is a complex reform process, and experience from other countries suggests that it is a long-term endeavor that requires broad health system reform and sustained leadership. An option for Vietnam is thus to consider initiating integrated care practices, gradually, into the design principles of its health system. Table ES1 summarizes some suggested actions that policy makers in Vietnam can consider.

Table ES1: Using Principles and Design Features of Integrated Care to Improve Health Services in Vietnam, Suggested Actions

Domain of integrated care	Suggested actions
Macro environment	
Legislative and policy environment	<ul style="list-style-type: none"> • Develop more concrete guidance to implement higher-level policies that contain elements of care integration. • Fill legislative gaps (e.g., on empanelment, electronic sharing of information).
Governance, management, and leadership	<ul style="list-style-type: none"> • Gain consensus on the form of governance and management for better-integrated networks of care in Vietnam. Options could include “virtual” network structures or a combination of formal and informal governance tools. • Assign dedicated leadership to coordinate functions for tasks / reforms that span across various departments.
Financing and payment	<ul style="list-style-type: none"> • Develop an appropriate payment mechanism for higher-level services with a view to encouraging right-siting of care and to contain health care costs. Vietnam Action Plan for Diagnostic-related Groups points to a way forward. • Revise fundholding model to be more in line with international definition of capitation. • Introduce performance-based financing for NCD management in the PHC setting.
Human resources	<ul style="list-style-type: none"> • Expand the family medicine approach and integrate with core PHC functions. Develop policies and training for family medicine (financing, clinical guidelines, organizational models, curricula development). • Expand the use of disciplines such as medical social work; develop new roles such as care coordinator / case managers. • Include preventive care, multidisciplinary approaches, and care coordination in training and skills transfer initiatives.
Micro environment	
Organizational forms	<ul style="list-style-type: none"> • Gather lessons learned from existing experimental organizational forms for collaboration across providers. • Gain consensus on organizational model(s) that would be suitable for Vietnam.
Role of primary health care	<ul style="list-style-type: none"> • Strengthen the availability and quality of care at the PHC level. • Establish systematic ways of collaboration and interaction among providers to deliver professional support for practitioners and follow-up care for patients at the PHC level. • Review limitations on what CHSs are allowed to do for noncomplex cases. • Pass legislation for patient empanelment and consider piloting empanelment with an element of patient choice.
Interactions among providers	<ul style="list-style-type: none"> • Establish care management plans and teams, possibly building on existing patient satisfaction surveys conducted by hospitals. • Develop integrated care pathways for chronic conditions by extending existing care protocols beyond the CHS to include interventions that should be provided at higher levels of care.
Enablers	
Information environment and digital health	<ul style="list-style-type: none"> • Legislation (i) for introduction of unique ID, (ii) to shift away from legal requirement for paper records and referrals, to an electronic system, and (iii) to enable data sharing. • Consolidate software at health facilities to streamline data management and reporting. • Health insurance claims data could be analyzed to understand trends in diagnoses and utilization and identify high-risk / high-frequency patients.
Performance measurement and monitoring and evaluation	<ul style="list-style-type: none"> • Draw from and build on wealth of existing data and reporting systems (e.g., health insurance claims database, mortality reporting)—with improvements. • Consider a more comprehensive, systems-based approach with a range of indicators across various dimensions (e.g., structure, process, outcomes, quality, integration, patient experience, and efficiency) to measure the effectiveness of integrated care reforms, if and when they are put in place.

Source: Authors

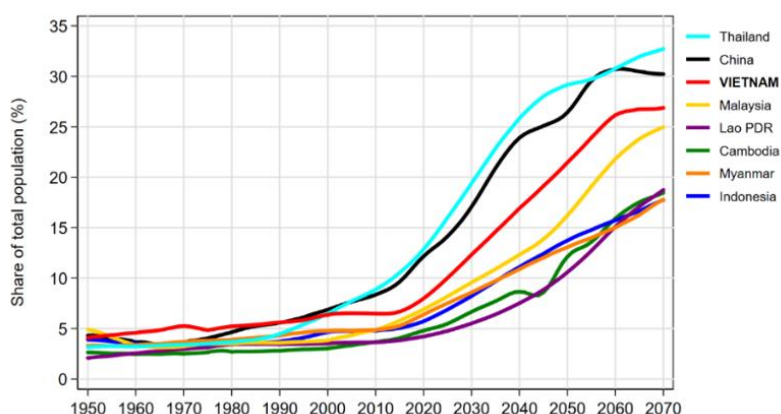
Some of these design elements, especially those at the service delivery level (micro environment), can be implemented through a short-term “stepping-in strategy.” Initiatives that have been tried in other countries include (i) small-scale programs for targeted groups, such as disease management for patients with multiple chronic conditions, or (ii) new care arrangements, such as transitional care planning for patients being discharged from hospital. Transitional care planning has been shown to be especially beneficial for those who are admitted to hospital frequently (three or more times in six months), significantly reducing hospital readmission rates and improving care arrangements for these individuals in the community setting. Robust assessments of these stepping-in strategies can serve as a proof-of-concept for the nature and design of integrated care in Vietnam, help to inform medium- to long-term changes that will be needed in the health system, and pave the way for broader reforms.

1. Introduction

Vietnam has achieved impressive improvements in its health outcomes over the last few decades. Life expectancy has increased significantly over the years, and mortality rates have declined substantially. Vietnam is recognized by the international community as one of 10 high-performing countries in its achievement of the Millennium Development Goals (MDGs) for health, and in fact has already met or surpassed the targets of the Sustainable Development Goals (SDGs) for mortality reduction. Access to health services has also expanded rapidly and, on average, coverage of essential services is high.

Vietnam is undergoing significant transitions. First, it is one of the most rapidly ageing countries in Asia. The percentage of the population age 65 and above is expected to increase 2.5 times by 2050, from an estimated 7.1 percent in 2015 to 18.0 percent by 2049 (GSO Vietnam and UNFPA 2016). This rate of ageing is high compared to other East Asian countries (MOH Vietnam and HPG 2017), slower only in comparison to China and Thailand (Figure 1). At the same time, the population support ratio (the number of people age 20 to 64, per individual age 65 and older) is forecasted to decline from 9.3 in 2015 to just 2.6 in 2050 (UN DESA 2017).

Figure 1: Share of Population Age 65 or Older, Vietnam versus Comparator Countries, 1950–2070



Source: UN DESA 2017

The prevalence of chronic, noncommunicable diseases (NCDs) in Vietnam has also risen sharply. The NCD share of the disease burden grew rapidly from 51 percent in 1990 to 74 percent in 2017. NCDs occupy seven spots in the top ten causes of Vietnam's disease burden (see Table 1). The single leading contributor to the disease burden is stroke, accounting for 10 percent of all disability-adjusted life years (DALYs) and 18 percent of all deaths in 2017 (IHME 2017). The top risk factors that drive death and disability are dietary risks, tobacco and alcohol use, high blood pressure, and diabetes.

Table 1: Top Ten Causes of Disease Burden in Vietnam, 1990–2017

Rank in 2017	Category	Percentage			
		1990	2000	2010	2017
1	Cardiovascular diseases	11.7	14.5	15.9	17.0
2	Neoplasms	6.9	9.4	11.2	13.1
3	Musculoskeletal disorders	3.6	5.1	6.3	6.9
4	Diabetes and kidney diseases	3.3	4.3	5.1	6.2
5	Neurological disorders	3.5	4.7	5.3	5.4
6	Other NCDs	7.8	6.7	5.9	5.0
7	Unintentional injuries	6.7	6.3	5.6	5.0
8	Mental disorders	3.4	4.5	4.9	4.9

9	Transport injuries	INJ	4.2	4.8	5.6	4.9
10	Respiratory infections and tuberculosis (TB)	CD	11.1	7.1	5.5	4.4
	DALYs per 100,000 population		33,766	26,510	25,785	25,809

Source: IHME 2017.

Note: NCD = Noncommunicable disease; CD = Communicable disease; INJ = Injuries; DALYs = Disability-adjusted life years.

Population ageing and an increasing burden of chronic conditions and NCDs are associated with an increase in multimorbidity and functional decline. A person in Vietnam living to age 60 today is, on average, expected to live another 22.7 years, but will remain healthy only for 17.2 of those years (WHO 2018). Difficulties in functionality increase significantly with age. Among the elderly population in Vietnam, 41 percent reported having disability—defined as having difficulties in at least one functional domain¹—compared to just 2 to 6 percent among the working adult population (GSO 2016). Significantly, 24 percent of elderly reported having functional difficulties in multiple domains, which is strongly associated with multimorbidity. By some estimates, on average, every elderly person in Vietnam (age 65 and above) lives with three chronic conditions (Tran, Barysheva, and Shpekht 2016); this increases to an average of seven medical conditions for persons age 80 years and older (MOH Vietnam and HPG 2017).

These trends imply a shift in the health needs of Vietnam’s population away from acute episodic care, toward disease management for NCDs. Most communicable diseases and acute conditions are episodic and can typically be diagnosed and treated in a short time, with just one or a few visits to a health care provider. Conversely, chronic conditions and NCDs develop more slowly, may progress over time, and can be managed but not cured. With a disease burden dominated by NCDs, Vietnam’s health service delivery system will need to become geared toward long-term disease management and provide effective follow-up care for people with NCDs.

There will also be a growing need for health and long-term care for the elderly. Older patients have more frequent contacts with the health care system, including at hospitals. The average number of inpatient admissions per person per year increases with age, especially among those 80 years and older (MOH Vietnam and HPF 2017). Elderly people with chronic conditions who are also limited in their mobility and functionality will require help with daily activities. Among elderly persons, 38 percent encounter difficulty with at least one activity of daily living (MOH Vietnam and HPG 2017). Additionally, many older persons live with their elderly spouse (22 percent) or live alone (7 percent). These shares have increased over time and are projected to increase even more with further changes in demographics, family structures, and urbanization.

Ensuring that care is appropriate for the changing needs of the population, including older persons, will require a paradigm shift in the way services are delivered. Vietnam’s health system is not equipped to manage the changing and future health needs of its population.

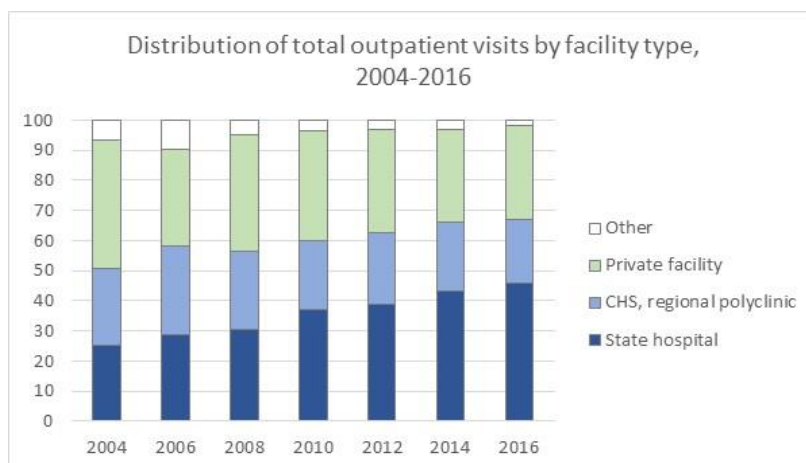
Today, Vietnam’s health service delivery system is hospital-centric, which is both expensive and not well-suited to the management of chronic conditions and NCDs. In 2016, almost half of all outpatient visits took place in a hospital, and this share has been rising steadily over time (Figure 2), even as overuse of hospital care has long been recognized as a health system problem (GSO Vietnam 2018).

Hospital overcrowding has significant negative impacts on patient care. These impacts include extended length of stay in emergency departments and wards; patient abandonment of hospital after initial screening or diagnosis, against medical advice; community loss of confidence and diminished reputation of hospitals; poor quality of care as evidenced by readmissions, wrong or incomplete

1. Including vision, hearing, mobility, cognition, communication, self-care, and psychosocial needs.

diagnosis, and adverse events; and patient dissatisfaction due to frustration with long queues and substandard care. Clinical outcomes may also be compromised. As health workers manage more patients, quality of care decreases and the likelihood of negative clinical outcomes increases (Aiken et al. 2002). Overcrowding and excess workload can also limit the ability of health workers to fully discuss treatment options with patients, cause delays in care, and contribute to heightened patient morbidity and mortality (Michtalik et al. 2013).

Figure 2: High and Increasing Share in the Use of Hospital Care for Outpatient Visits, 2004–2016



Source: GSO Vietnam 2018.

Note: CHS = Commune health station.

Resource utilization at hospitals in Vietnam is high, and at least some of it is wasteful. Over the past five years, bed occupancy rate has consistently been above 110 percent. This is despite a growth in the number of inpatient beds over the past decade, increasing from 24 to 33 per 10,000 inhabitants (MOH, various years). The average length of stay (ALOS) in hospital in Vietnam is 6.7 days, higher than the average for Organisation for Economic Co-operation and Development (OECD) countries (6.3 days) and in the region (5.0 and 6.1 days for lower- and upper-income countries in East Asia, respectively) (OECD and WHO 2018). Among hospitals at different levels of the system, central hospitals have the highest ALOS (9.4 days). On the one hand, this could be due to greater complexity of care required by patients who come for treatment at central level hospitals. On the other hand, it could also be an indicator of overstaying and inefficiency. All other things being equal, a shorter stay will reduce the cost per discharge and provide care more efficiently by shifting care from inpatient to less expensive post-acute settings (OECD and WHO 2018).

Health spending follows these utilization patterns: almost three-quarters of health spending in Vietnam flows through hospitals. Financing and governance arrangements also encourage gross over-servicing. The fee-for-service reimbursement method through social health insurance provides an incentive for increasing service volume. This is aggravated by a policy of financial autonomy, which allows hospitals to make investment decisions and encourages revenue generation, creating incentives for hospitals to offer expensive and high-tech services—some of which may be medically unnecessary. These governance arrangements and financing mechanisms lead to allocative inefficiency.

An important contributor to the persistence of the hospital-centric model of service delivery and hospital overcrowding is a weak primary health care (PHC) system, especially for NCD management.² Many people do not get proper diagnosis and treatment for hypertension and diabetes. Among survey

2. Descriptions of the PHC system can be found in Section 4 (subsections on governance, financing, and the role of primary care). The features of the PHC system are discussed there in the context of their relevance to those topics and the impact they have on integrated care.

respondents who were hypertensive, only 43 percent had been previously diagnosed by doctors, and just 14 percent reported that their condition was currently being managed at a health facility. Among those assessed as being diabetics, 31 percent had previously been diagnosed, and only 29 percent were receiving treatment or being managed for their raised blood glucose (MOH Vietnam 2015). Many doctors in Vietnam are not properly trained to manage NCDs. Only 55 percent of the most knowledgeable doctors (mostly in districts) asked the right questions in a case presentation of type 2 diabetes, and a mere 10 percent of the least knowledgeable doctors (mostly in communes) did. 69 percent of doctors in district hospitals prescribed some correct treatment for type 2 diabetes, compared to 54 percent of doctors at the commune level (World Bank 2016).

NCD service availability is particularly limited at the commune level. More than a quarter of commune health stations (CHSs) do not provide even the most basic level of screening for hypertension (28.5 percent) and diabetes (29.7 percent). The proportion of CHSs providing complete management of hypertension and diabetes was only 9.8 percent and 24.4 percent, respectively. At the same time, there is a high correlation between the availability of hypertension/diabetes services and CHS utilization. The more elements of the hypertension and diabetes service packages that are available, the higher the intensity of service use. This suggests that the population's willingness to visit the CHS would likely increase if the CHS could provide a comprehensive set of NCD services. This would also reduce the burden of NCD management at higher, less convenient, and more expensive levels of care (Vu, Bales, and Bredenkamp 2019).

In theory, most patients with NCDs and chronic conditions can be managed in the community, where care is closer to home, more appropriate, and cheaper. Many medical conditions that are currently treated in hospitals could be better managed in ambulatory, community, and home settings, supported by hospitals and technology. Right-siting of care is beneficial for patients as it ensures that the appropriate type of care is provided in an appropriate setting. The PHC setting has significant potential to be more effective than tertiary care in delivering preventive care services and patient education in response to common medical conditions and NCD management. The PHC setting is also more efficient from a health system perspective, as care is typically less expensive outside the hospital setting, due to lower costs (labor, overheads, etc.). Coordination across providers also helps to reduce duplicate tests and procedures, while proper case management helps to keep health conditions from exacerbating and keeps patients out of hospital.

Putting this into practice in Vietnam would entail a new orientation in health service delivery—one that focuses on shifting the delivery of low complexity care out of hospitals to PHC and other intermediate units. Many services related to the prevention, treatment, and management of noncommunicable diseases are good candidates. Shifting care to the right setting would typically lead to improved convenience for the patient and increased efficiencies in service delivery since primary and ambulatory care facilities tend to be lower cost, even if the actual medical procedure remains the same. Bringing about these changes will require creating an enabling institutional, financial, and information environment to foster integration across care settings. Patients would also need to be assured that the shifting of care would improve the effectiveness and convenience of their care and that they would be referred to the appropriate setting, of decent quality, when needed.

Globally, there has been a push toward service delivery models that are more responsive to individual health needs and can deliver the right care in appropriate settings. Such service models typically promote a person-centered approach and involve integration of care. The next section reviews these concepts.

2. Integrated care: Conceptual framework

Integration of care refers to the “deliberate organization of patient care activities between two or more [providers] involved in a patient’s care to facilitate the appropriate delivery of health care services” (McDonald et al. 2007). Integrated care typically involves the management and delivery of health services such that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation, and palliative care services through the different levels and sites of care within the health system and according to their needs throughout the life course (WHO 2016).

Integrated care includes many related concepts and interpretations. The global literature on integrated care includes a plethora of definitions; Table 2 outlines key definitions and aspects of integration. Moving beyond definitional issues, the crux of care integration is a paradigmatic shift in how care is organized, delivered, and funded, in comparison to the current fragmentation found in many health systems. Vietnam is no exception. Integrated care is also centered on patient needs and is meant to facilitate improvements in population health.

Table 2: Integrated Care Typology and Definitions

Type of integration	Definition
First order	
Vertical	Integration of care at different provider tiers: community-based, primary care, hospitals, and diagnostics
Horizontal	Integration of care across units at the same provider tier: curative, preventive, promotional public health (usually at primary health care level)
Sectoral	Integration with other sectors, such as social services and education
Second order	
Technical / clinical	Use of mechanisms to coordinate service delivery, such as case management, care plans, multidisciplinary teams, care pathways
Professional	Inter-professional education and training
Organizational / managerial	Shared mission, governance, accountability, strategy, supervision, oversight
System	Alignment of policies and regulations to support integration
Financial	Pooling of resources across organizations; payment mechanisms

Source: Authors.

There are several frameworks on integrated care in the global literature. These frameworks identify core components of integrated care and discuss key elements that are needed for effective policy reform and program implementation. Most of these frameworks are based on the analysis of experiences in the design and implementation of integrated care initiatives. Table 3 outlines the main elements of five frameworks oriented to design and implementation features. A substantial overlap is apparent in the factors or thematic areas identified across the frameworks to enable effective care integration. This suggests a commonality of global experiences.

Table 3: Frameworks for Developing, Designing, and Analyzing Care Integration

Essential principles	Core dimensions	Patient-centered integrated care	Integrated Health Service Delivery Networks	Building blocks
<ul style="list-style-type: none"> • Comprehensive services across the care continuum • Patient focus • Geographical coverage and empanelment • Standardized delivery through care teams • Performance management • Information systems • Organizational culture and leadership • Physician integration • Governance • Finance and management 	<ul style="list-style-type: none"> • Health care system • Policies • Patient self-management support • Delivery system (re)design • Decision support • Information systems • Leadership • Governance • Performance and quality • Organizational culture • Social capital (trust) • Contextual factors 	<ul style="list-style-type: none"> • Primary care as first contact • Multidisciplinary teams • Vertical integration (relationships across provider tiers) • Horizontal integration (curative, preventive, public health) • Digital health • Integrated care pathways and dual referrals • Measurement and feedback • Certification 	<ul style="list-style-type: none"> • Models of care (population health, coordinated care, patient-centered, primary care gatekeeping). • Governance and strategy (unified system of governance) • Organization and management (HR, information systems, performance management) • Financial allocation and incentives 	<ul style="list-style-type: none"> • Political support and commitment • Governance • Stakeholder engagement • Organizational change • Leadership • Collaboration and trust • Workforce education and training • Patient focus—empowerment • Financing and incentives • ICT infrastructure and solutions • Monitoring and evaluations systems
<i>Source: Suter et al. 2009.</i>	<i>Source: Gonzalez-Ortiz et al. 2018.</i>	<i>Source: World Bank and WHO 2016, 2019.</i>	<i>Source: PAHO 2010.</i>	<i>Source: EC 2017.</i>

Note: ICT = Information and communications technology.

Broadly, these frameworks can be divided into three domains: macro (the enabling health system environment for integrated care, consisting of policies, laws, financial and governance arrangements, management capacities, etc.) and **micro** (the frontline service-level design elements, including clinical practices, care models, provider relations, etc.). Cross-cutting **enablers** include digital health and monitoring and evaluation. Drawing on these frameworks, this report organizes findings along these domains, as illustrated in the following table.

Table 3: Key Domains of Integrated Care

<p>Macro environment:</p> <ul style="list-style-type: none"> • Legislative and policy environment • Governance, management, and leadership • Financing and payment • Human resources 	<p>Micro environment:</p> <ul style="list-style-type: none"> • Organizational forms • Role of primary health care • Provider-provider interactions / clinical integration <ul style="list-style-type: none"> ○ Multidisciplinary teams ○ Care management and navigation ○ Integrated care pathways
<p>Enablers:</p> <ul style="list-style-type: none"> • Information environment and digital health • Performance measurement and monitoring and evaluation 	

Source: Authors.

The theoretical underpinnings and examples of each of these domains will be introduced at the beginning of each relevant subsection in Section 4: Key findings and discussion. This aims to provide a bridge between theory and practice, explaining clearly how theory compares with Vietnam’s readiness for implementing integrated care.

3. Methodology

i. Research objectives

The objective of this report is to provide suggestions on how the health service delivery system in Vietnam can be designed to promote integration and right-siting of care. Specifically, this assessment aims to understand and provide insights on what it would take to shift the delivery of care out of the hospital setting to more appropriate resource settings in Vietnam, with a view to improving health system efficiency and enhancing patient experience. The main motivation for suggesting reforms toward better integration and right-siting of care is to enable Vietnam's health system to cope with the changing health needs of the population, in the context of a rising burden of NCDs and chronic conditions and an ageing population.

Within the broad concept of integrated care, this report focuses on interactions and communications across provider levels to facilitate right-siting of care and enhance health system efficiency. This approximates to "vertical integration" as defined in Table 2 above. This choice of focus is based on Vietnam's context of hospital overcrowding and overuse of hospital-based care, and the associated priority of shifting care out of the hospital setting. By focusing on continuity of care through increased provider coordination across different levels of care, vertical integration ensures that the complex needs of patients are continuously tracked and attended to. In turn, this reduces unnecessary hospitalizations, ensures that appropriate care is provided to patients in the right setting, and improves efficiency of health spending (JLN and Aceso Global, 2018).

Guided by the categorization of key domains of integrated care outlined in Table 4 above, the assessment is structured around three key research questions:

- What is the policy and enabling environment in Vietnam in support of care integration, and what are the gaps?
- Does the current health service delivery model apply any elements of care integration (specifically, interactions and communications across provider levels to facilitate right-siting of care)?
- How can Vietnam improve the way it delivers health services using the principles and design features of integrated care? In practical terms: what policies, interventions, and enablers would Vietnam need to put in place to facilitate care integration?

ii. Joint Learning Network Vertical Integration Assessment Tool

To conduct this assessment, the team utilized an adapted version of the Joint Learning Network (JLN) Vertical Integration Assessment Tool.³ This JLN Tool supports efforts of JLN member countries as well as other lower-middle-income countries (LMICs) to assess and implement policies, programs, and pilots on care integration. The tool was developed in recognition of the growing relevance of care integration in health systems reform. At the same time, it was developed in response to the fact that few tools have been developed to measure vertical integration, particularly in the context of LMICs (JLN and Aceso Global 2018). Most existing measurement frameworks focus on measuring the performance of integrated care (European Commission 2017), which assumes that relevant reforms have already been

3. A full version of the JLN tool can be found at <http://www.jointlearningnetwork.org/resources/vertical-integration-diagnostic-and-readiness-tool>.

underway for some time. The JLN Tool is thus best suited to the Vietnamese context, where integrated care has not yet been implemented.

The three main objectives of the tool—as reflected in its structure—are to (i) review the overall policy, regulatory, and institutional environments, including enablers and constraints to vertical integration (Instrument 1); (ii) gather information on components (“what”) and practice (“how”) of vertical integration in the broader health system and organizational environments as well as frontline service-delivery settings (Instrument 2); and (iii) assess vertical integration practices across different tiers of a country’s health care system, including those utilized in pilots and small-scale initiatives (Instrument 3). The tool is intended to be adapted for use in countries; it is not meant to be applied without modifications.

To apply this tool in Vietnam, the team adapted and used the instruments as follows:

- **Instrument 1 and parts of Instrument 2 (2A and 2B) were used by the team as a guidance tool primarily to inform a desk review of policies related to vertical integration, and secondarily to verify the information gathering in the desk review with a few selected respondents.** This approach was based on the team’s hypothesis (informed by local advice) that conducting interviews on national policies (Instrument 1) and the status of care integration in the health care system and organizational environment (Instrument 2A and 2B) in the first instance would elicit few meaningful responses. However, if the team approached respondents with specific examples of partial policies or initiatives related to (but not directly on) integration of care found through the desk review prior to the interviews, the discussion would likely be more insightful.
- **Modules from Instruments 2 and 3, which focus on care integration at the organizational and facility level** were combined and adapted for interviews with managers and frontline health workers at provincial hospitals, district health centers (DHCs), and commune health stations. The choice and phrasing of questions were based on the team’s (partial) knowledge of ongoing initiatives at health facilities.

iii. Program and site selection

To understand if health services currently apply any elements of care integration, the team chose to focus on NCD programs and, where possible, hypertension in particular. Our reasons are as follows: First, NCDs and hypertension in particular are a priority in Vietnam, given their high and increasing prevalence. Uncontrolled hypertension is one of the leading risk factors for death and disability. Second, the public sector health system has done NCD and hypertension management for many years—and with several different models—which provides sufficient implementation experience and material for us to review. Third, from a theoretical perspective, as outlined in the earlier section, integration is important for NCD care because many NCDs are chronic conditions that require consistent follow-up to manage the disease, and care is often more appropriate and cheaper when delivered close to the patient, in the community. A lack of integration across providers—including discontinuity in medical information and the treatment process between levels and even from one treatment episode to another, and a lack of organized two-way referral—has already been identified as a gap in NCD management (Meiqari et al. 2019). This study aims to dig deeper and provide more detail on the components and organizational processes of care integration.

We reviewed the design and implementation of NCD programs in two provinces: Bac Giang and Ha Nam. Table 4 provides key information about these provinces and their NCD programs and explains our

rationale for choosing these provinces for our study. Our assessment on whether these programs contain elements of care integration will be discussed in Section 4: Key findings and discussion.

Table 4: Key Features of Noncommunicable Disease Programs in Bac Giang and Ha Nam Provinces

	Bac Giang	Ha Nam
Population	1,800,000	798,570
Population > 40 years	Approximately 630,000	Approximately 280,000
Location / geography	A mid-land province 50km northeast of Hanoi, land area of 3,895km ²	A small province about 60km south of Hanoi, land area of 852km ²
Socioeconomic indicators	GDP per capita: US\$2,230 (2018) Poverty rate: 9.0 percent	GDP per capita: US\$2,400 (2018) Poverty rate: 3.2 percent
Health facilities	8 provincial hospitals (general and specialized) 10 district hospitals and 201 CHSs	7 provincial hospitals (general and specialized) ⁴ 7 district hospitals 116 CHSs
Rationale for selection	Many years of NCD management (since 2003). Program developed by the Provincial Health Bureau	First province to pilot NCD management at the PHC (commune) level, with technical support from WHO since 2015; WHO support has since been expanded to other provinces
Program inception	Hypertension: Since 2003 in the provincial hospital; 2007 in 10 district hospitals, and 2011 in CHSs Diabetes: 2016 in 4 CHSs Chronic obstructive pulmonary disease (COPD) and asthma: 2018 in 5 CHSs	Hypertension: Since 2015 in 83 CHSs Diabetes: Since 2015 in 66 CHSs (and expanded to all CHSs by 2019)
Number of patients being managed	Hypertension: 21,091 Diabetes: 74 COPD: 31	Hypertension: 3,924 Diabetes: 477
Brief description of NCD program	<ul style="list-style-type: none"> • Governance by Provincial and District Steering Committees • Provincial hospital provides training to lower-level hospitals and CHSs, based on MOH treatment guidelines • Service standard for NCD management at CHS level certified by Dept. of Health • NCD treatment (consultation and medication) paid for through social health insurance 	<ul style="list-style-type: none"> • Strong technical support from MOH General Dept. of Preventive Medicine and WHO • All related staff at the district and commune levels were trained on NCD management; treatment guidelines and IEC materials were distributed (developed by WHO) • Close supervision and monitoring are organized frequently • NCD treatment (consultation and medication) paid for through social health insurance
<p><i>Source:</i> Authors, based on information provided by provincial authorities.</p> <p><i>Note:</i> A key reason for selecting these two provinces is the variation in their implementation experience. Bac Giang started NCD management at the provincial hospital and only decanted patients to lower levels five years into the program when hospitals became overcrowded. Conversely, Ha Nam started “bottom up,” managing NCDs at the PHC level from the beginning of their program.</p> <p>NCD = Noncommunicable disease; WHO = World Health Organization; CHS = Commune health station; MOH = Ministry of Health; IEC = Information, education, and communication; PHC = Primary health care.</p>		

4. Vietnam’s largest central-level tertiary hospitals (general and surgical), which are located in Hanoi are currently building branches in Ha Nam. This is expected to contribute to an increase in hospital-based care in the province in the near future.

iv. Timeline

The process of designing the assessment tool and implementing it took place from September to November 2019 and comprised the following:

- **Desk review.** The team conducted a literature review to identify policies relevant or related to care integration using the modified instrument / guidelines described above. This was done in September 2019.
- **Development of modified assessment tool** based on JLN Tool. The modified assessment tool was drafted by the World Bank team, in consultation with researchers from the Health Policy and Strategy Institute (HSPI) of Vietnam and key advisers. The tool was finalized in September 2019.
- **Qualitative semi-structured interviews with key stakeholders and selected respondents.** In the planning phase, the World Bank team, in consultation with HSPI Vietnam, identified practitioners and policy makers to be interviewed. This process of identifying respondents was the only feasible approach, given that care integration was not already being implemented, thus making it difficult to identify a wider or more representative range of respondents. Interviews were conducted in October and November 2019. As part of the semi-structured interviews, we also reviewed facility-level documents, including referral forms, checklists, clinical guidelines, and facility registers, as part of the process of understanding if any elements of care integration were happening in practice.
- **Data collation and review.** Interview notes were typed up and shared among the team. The World Bank team and HSPI researchers held teleconferences in November and December 2019 to review the results and discuss key findings.

v. Limitations of the study

This study is entirely qualitative and is limited by a paucity of data and quantitative measurement that could shed light on the degree of integration (or lack thereof) in Vietnam today. Nonetheless, the report provides suggestions on useful metrics that could be collected going forward. These include indicators that reflect health system performance and inefficiencies that could strengthen the case on why integrated care is important in Vietnam and identify the conditions or diseases to focus on. When integrated care pilots or programs are implemented, program-specific metrics could help to evaluate performance and guide course correction as needed. These suggestions can be found in the section on Performance management and monitoring and evaluation.

The study is not comprehensive in its coverage of programs and sites; it is also not an evaluation of the selected programs. The choice to focus on NCD programs (and in particular hypertension) was based on prior knowledge of ongoing initiatives in selected provinces. This was a purposeful selection of two provinces to get a sense of the key features of the programs; they are neither representative of all government health programs nor of all provinces. It is also important to note that these are NCD programs; they are not integrated care initiatives. As such, findings from these programs as they relate to the key domains of integrated care do not constitute an evaluation of the programs. The information is used purely in an indicative manner, to understand NCD management in Vietnam today and highlight the potential for better vertical integration. The study also does not include services delivered by private sector providers.

4. Key findings and discussion

This section records key findings from the assessment based on the three research questions outlined above. The write-up is organized according to the key domains of integrated care presented in Table 4. Each subsection begins with a brief write-up of the importance of each domain to the success of integrated care reforms; this is placed in a box titled “Why does it matter?.” This information is based on a combination of theory and implementation experience from other countries. It aims to provide knowledge and guidance to policy makers in Vietnam on what it would take to improve its health service delivery system using principles and design features of care integration. Relevant reform experiences from other countries are also highlighted as examples of options for Vietnam.

i. Macro environment

Legislative and policy environment

Why does it matter? The legislative and policy environment provides an overarching “authorizing environment” in which integrated care reforms take place. This could include policies, plans, and strategies, as well as regulations and laws that are critical to operationalize foundational elements that facilitate integration, such as empanelment and sharing of health information. For providers, service-level agreements or contracts help to track and ensure adherence to requirements and performance. Related policies on financing and payment, training and technical assistance, etc., are also critical. In many European countries, for example, policies created visions, processes, and strategies for care integration at regional and national levels. Such policies cover a wide range of topics, including social care integration, chronic care, mental health, protocols, electronic medical records, etc. In some countries, such as Spain and Germany, integrated care was a part of policies and laws to address chronic conditions. Policies also triggered legislation to support implementation (e.g., in Italy, Scotland, Spain, and Belgium). In a few countries, legislation mandated mechanisms of collaboration, such as signed agreements between care organizations (e.g., in Denmark, Northern Ireland). Policy enablers in middle-income countries include policies to guide implementation, mandatory integrated actions across providers, development of integrated pathways, staff training programs, and financial resources for care integration.

A desk review found that the concept of care integration is peppered across a range of government documents in Vietnam. The types of documents range from high-level documents such as pronouncements in party resolutions, and laws and decisions by the prime minister, to ministry-level circulars and guidance notes. The technical areas in which some elements of integration across provider levels are mentioned include health service delivery models, roles of various providers, human resources, digital health, and NCD care. Brief descriptions and excerpts of relevant documents can be found in [Annex A](#). While there is no shortage of government documents that address one or several elements of care integration, there are nonetheless gaps in the legislative and policy environment.

First, higher-level documents are, for the most part, aspirational statements of intent. They are not comprehensive or concrete enough to guide on-the-ground implementation of integrated care. For example, the broad concept of integrated care, underpinned by a strong PHC system, has been articulated in the Vietnam Communist Party Resolution 20 (2017) and related government action plan on the Protection, Care, and Promotion of the People’s Health. These documents lay out a vision for strengthening PHC and ensuring continuity of care between levels of the system. This provides an enabling political environment for integrated care reforms. It also shows that Vietnam’s policy makers are aware of the problems associated with its fragmented health service delivery system, the need to shift care out of the hospital setting, and the importance of a strong PHC function. However, at the operational level, there is a lack of clarity on what a better-integrated health service network would

look like. There has been little discussion of when and how this vision will be implemented. While there has been strong emphasis on strengthening the PHC system, there have been no concrete plans on how to coordinate care across facilities at the grassroots, provincial, and central levels.

Second, while numerous documents hint at care integration, in the implementation phase they are regarded as separate policies that are managed by different entities. For example, the family doctor model, which in principle is closely intertwined with PHC functions, is managed as a separate service by the Medical Service Administration (MSA) in the Ministry of Health (MOH). There is also a sharp distinction between curative and preventive services. The responsibility for NCD care, for example, is split between MSA and the General Department of Preventive Medicine (GDPM) for curative and preventive care, respectively. In the absence of dedicated leadership, a strong monitoring and evaluation system, and effective enforcement and accountability mechanisms, coordination on issues that span across various departments is challenging. We elaborate on this in the following section on Governance, management, and leadership.

Third, there are key gaps in the legal framework that make it difficult to operationalize care integration. Two critical examples are empanelment and e-health. There is currently no legal basis for empanelment of the population. In Vietnam's current service delivery context, patients by and large have freedom of choice on where to seek care, with no effective gatekeeping function. Without new legislation on patient empanelment, it would be close to impossible to mandate that people seek care at the PHC level as a first point of contact or to require that patients seek follow-up care with the same primary care practitioner. This will be discussed further in the section on the Role of primary health care. The status of legislation and policy development on e-health and sharing of patient information will be discussed in the relevant section as well.

Governance, management, and leadership

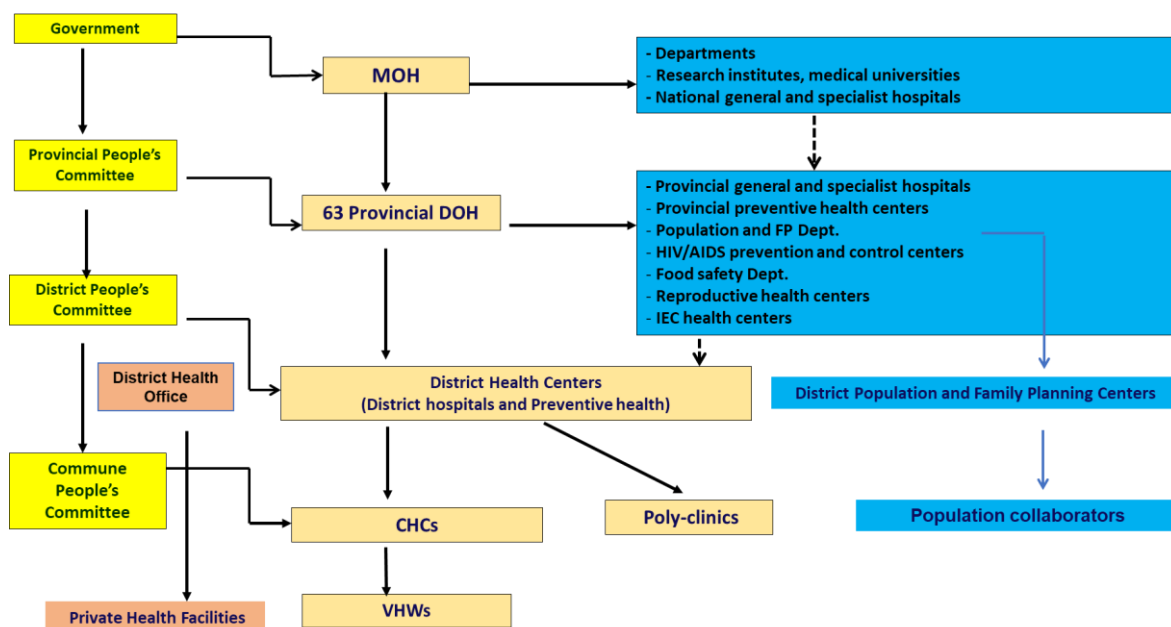
Why does it matter? Governance and management for integrated care refers to the authority, accountabilities, and rules required to support planning, design and implementation of the initiative. This often requires an empowered entity to oversee the entire process; in many European countries, joint governance arrangements across several organizations or even a new governing entity may be set up. From the service delivery perspective, providers responsible for implementing care integration activities are typically held accountable for standards, processes, and outcomes. Strong and continuous leadership is often a key factor in determining whether integrated care reforms are effective and sustained.

Not only has there been no cohesive reform effort on integrated care in Vietnam, there have been no separate governance and management structures established for this purpose. As mentioned above, individual policies, technical areas, and health system components (e.g., financing, human resources, and primary care) are managed by relevant MOH departments within the existing public sector administrative framework. Some policies for specific conditions or diseases (e.g., immunization, HIV/AIDS, and NCDs such as hypertension and diabetes) are managed by national institutes with policy oversight from MOH.

It follows, then, that there is no overarching leadership of an integrated care reform process. Individual department directors and director generals of national institutes are in charge of their respective policies. This can be a challenge for integrated care reforms. In conducting this assessment, the team experienced firsthand the difficulty in identifying champions and leaders on integrated care. As a result, our list of respondents was a patchwork of various departments whose policies are related to elements of integrated care, to varying degrees.

Governance in the public sector health delivery system continues to follow a hierarchical administrative structure. The network of public sector health facilities follows administrative levels: central, provincial, district, and commune. The grassroots health system—as it is known in Vietnam, which approximates the PHC function—comprises health facilities at the district (population of about 100,000), commune (5,000–10,000), and village (about 1,000) levels. CHSs have traditionally been responsible for implementing centrally managed government programs. They are intended to be the first point of contact for patients seeking care in the public sector health system. CHSs are under the management of the DHC, while village health workers are managed by the CHS. In parallel to the health service delivery system is a political and administrative system, which consists of people’s committees and government offices (also called bureaus or administrative units) at each level of government. These committees and offices are responsible for conveying and implementing government policies. In Vietnam’s decentralized context, they also have significant decision-making authority over budget allocations. Figure 3 illustrates these relationships.

Figure 3: Schematic of Vietnam's Health Service Delivery Network



Source: Ministry of Health 2018.

Note: MOH = Ministry of Health; DOH = Department of Health; CHC = Community health clinic; VHW = Village health worker; FP = Family planning; IEC = Information, education, and communication.

In this context, accountability mechanisms for achieving outcomes have generally been weak, and there are no new mandates requiring adherence to standards or processes related to care integration or right-siting of patient care. Enforcement of policy implementation—especially for resolutions, broad action plans, and guidance documents as outlined above—is limited. Program implementation is guided by central-level policy but to a large extent dependent on local conditions and decision-making. Provinces have a high degree of autonomy in how they allocate budgets to district and commune health facilities. A policy on hospital autonomy has also given hospitals significant financial and managerial freedom. In both cases, this has led to significant variations in implementation and performance across the country (World Bank and Government of Vietnam 2017), and has contributed to a weakening of accountability mechanisms between MOH and health service delivery units.

Why does it matter? Financing and payment mechanisms can create powerful incentives (or disincentives) for providers to collaborate with one another to facilitate effective patient transitions and deliver appropriate care. Each provider payment method comes with its own incentives.⁵ Experience from health systems across the world has shown that fragmented payments contribute to fragmented service delivery. Financing for integrated care can include incentives to change clinical practices and reward quality, often in the form of add-on payments; bundled payments to cover the entire episode of care (paying a single price for all services delivered even if they involved providers at different levels); capitated payments; and population-based payments to encourage care to be people-centric rather than provider-centric. Countries have also used blended payments involving a combination of bundled payments, pay-for-performance, and shared savings approaches (Stokes et al. 2018). In many cases, additional resources up-front are needed to launch integrated care reforms. The role of the purchaser is critical in financing for integrated care: *how* payment methods are designed matter to the incentives that are created, and *whom* the purchaser contracts with matters to the type and nature of integration and interaction across providers who will need to share the funds.

Vietnam’s provider payment methods are mixed, with different payment methods across facilities and for different types of care. Current payment mechanisms include fee-for-service (FFS), capitation, and supply-side subsidies paid through either global budgets or line-item budgets. Table 5 summarizes the types of payment mechanisms to different providers, from different purchasers.

Table 5: Provider Payment Methods in Vietnam

	Purchaser		
	Ministry of Health	Provincial Health Department	Vietnam Social Security (Social health insurance)
Central hospitals	Global budget		FFS with a soft cap
Provincial hospitals		Global budget	FFS with a soft cap
Provincial preventive care centers		Line-item budget	
District hospitals		Global budget	FFS with a soft cap
District health centers (Preventive care)		Global budget, line-item budget	
Commune health stations		Line-item budget	FFS (transfers from district)

Source: Adapted from Somanathan et al. 2014; Nguyen et al. 2015; updated by Authors.

Note: FFS = Fee-for-service.

This mixed provider payment system has contributed to significant fragmentation and conflicting incentives in the health system, across different provider types.

The fee-for-service payment method used by Vietnam Social Security (VSS) to reimburse for curative care creates strong incentives for hospitals to increase the volume of services they provide. The majority of central and provincial hospitals derive 70 to 90 percent of their revenues from the provision of services reimbursed by VSS, from patients, or both (Somanathan et al. 2014). VSS currently has few controls on the conditions and rules for payment, leading to an open-ended FFS payment system,⁶ which translates directly into higher revenues and profits for providers. There is also little incentive for providers to refer patients down to the PHC level; instead, the incentive is to keep patients. In general,

5. Refer to World Bank 2009 for a primer on provider payment.

6. VSS has put in place hospital-level caps on FFS payments, but in practice this is a soft cap. The provincial-level Social Security Office often reimburses at least part of the overrun.

VSS is a relatively passive (rather than active and strategic) purchaser, and in the context of care integration, it does not play a role in the design of financing arrangements that would facilitate interaction among providers and shared accountability for patients.

At the district level, capitation-based health insurance payments put district hospitals at significant financial risk, with little control over their budget and expenditure. Capitation in Vietnam is an annual payment by VSS to district hospitals for each insured person for all outpatient services, hospital stays, and costs related to referrals and self-referrals to provincial hospitals.⁷ This places district hospitals entirely at risk for the costs of referrals and self-referrals to the provincial level, and has provided little incentive for district hospitals to refer patients (Nguyen et al. 2015). Once referred upward to secondary and tertiary hospitals, the cost of care is reimbursed on a FFS basis. District hospitals have no control over billing practices but nonetheless bear the financial risk. District hospitals are also responsible for treatment costs incurred by insured members at CHSs under their jurisdiction. An added challenge is that patients are free to choose where they seek care; district hospitals cannot prevent patients from bypassing them and going directly to higher-level facilities (Nguyen et al. 2017).

CHSs, which come under district administration, receive limited resources and, generally, have limited ability to serve a robust PHC function. Administratively, CHSs are subsumed under DHC. They are not legal entities and cost centers of their own. CHSs receive two main sources of revenue:

- **Line-item budgets from the province**, which predominantly include staff salaries and miscellaneous operating expenses (electricity, medical consumables, stationery, etc.). These payments ensure that facilities exist and have basic staff to provide primary care services. However, there is little incentive for providing services or reaching out to the community because the staff receive the same amount regardless of the amount of services they provide to clients in their community. There have been some add-on payments through specific programs (e.g., immunization, tuberculosis), but these remain limited.
- **Since 2017, CHSs have become eligible to receive health insurance payments for providing curative care services.** With authorization by the Provincial Department of Health (upon meeting certain minimum standards), CHSs are allowed to provide a basic package of PHC services.⁸ These payments flow through the DHC, with no clear criteria on how much of the reimbursement should go to the CHS. Since the bulk of costs at the CHS are covered through other means,⁹ in practice the DHC typically transfers little or no health insurance funds to the CHS. This financing arrangement in fact incentivizes DHCs and CHSs to compete with each other for patients, since service provision at the CHS means less volume and revenue for the DHC.

Overall, provider payment mechanisms fail to promote a more cooperative and complementary relationship in service delivery among various levels of care—from tertiary to grassroots levels, and even between the DHC and CHS. The most critical ways in which Vietnam’s current provider payment mechanisms limit the potential for care integration are (i) poor cost controls in the overall health insurance reimbursement system; (ii) distorted incentives, which encourage providers to focus on curative rather than preventive and promotive care; and (iii) a lack of appropriate payment methods and allocation of resources across providers to incentivize referrals and patient transitions. Critically,

7. Reviews of this system have concluded there is very little difference in practice between FFS and capitation in Vietnam. This is because capitated rates are formulated from historical expenditure based on utilization and the fee schedule, and surpluses and deficits are calculated against what revenue would have been if the hospital had been paid FFS (Nguyen et al. 2015).

8. Circular 39, issued by MOH in 2017, specified a basic package of primary care services including a specific list of technical services and drugs that are eligible for health insurance reimbursement at CHSs.

9. CHS staff salaries are covered by provincial budgets. Drugs dispensed to insured patients at the CHS are procured by the district hospital and distributed to the CHS for dispensing, with reimbursements flowing from VSS directly to the hospital.

from the patient perspective, better cost coverage—often for more sophisticated care—at higher levels of care creates a powerful incentive to bypass lower levels of care.

Human resources

Why does it matter? Effective integration of care depends in a large part on health workers’ ability to deliver appropriate and continuous follow-up care as patients transition across care settings. This requires a change in the scope of practice and functions of different cadres of health professionals, new team compositions, and possibly the creation of new roles. Examples of new roles include care coordinators, community health nurses, and IT staff. Clinical staff may also need to upgrade their skills as they take on more clinical tasks and coordinate with hospital-based specialists. Communication skills are also critical to encourage patient self-management and behavior change. There may be a gap between the current health workforce and the desired workforce for integrated care. Shifting toward integrated care will thus require a change in the competencies and composition of the health workforce, and the way health workers are deployed and required to work together.

Many countries have followed family medicine principles to improve PHC; Vietnam is no exception. Family medicine focuses on comprehensive and holistic care, with continuity of care across a person’s life cycle.¹⁰ It promotes a person-centered approach and includes the provision of health maintenance, preventive services, and medical care for common illnesses. Vietnam has sought to adopt the family medicine approach for over 20 years.¹¹ Today, family medicine training is incorporated into general practitioners’ curricula at the bachelor’s level, as well as at the specialist level and as a master’s degree. Short-term training in family medicine is also provided to health workers at the grassroots level.

Despite the long history of family medicine in Vietnam, its practice is not as yet widespread, nor is it viewed as a fundamental part of PHC. To date, there are approximately 1,100 Specialist Level 1 doctors and more than 1,000 general doctors who have undergone short-term family medicine training (other training forms have small numbers of trainees). Every year, about 50 to 100 doctors graduate with a family medicine specialty. These numbers are hardly sufficient to respond to current staffing needs of more than 11,000 CHSs and 800 public hospitals, let alone the growing demand for family medicine in the future. In reality, family medicine has only been piloted in limited scope, mainly in big cities and hospitals. Some challenges to widespread implementation include a heavy training program, curricula that are not updated, and difficulties in drawing appropriate connections with other training programs. Additionally, the common view of family medicine is that it is a specialization separate from the core functions of PHC. Family medicine has been implemented through specialized “family medicine clinics” or separate consultation rooms within existing DHCs or CHSs, rather than as a care approach that is core to the practices and services already performed by health workers at the PHC level.

Vietnam also has a long history of training and professional support from higher to lower levels of care. A policy on the Direction of Healthcare Activities (DOHA), established in 1961, requires health facilities at higher levels to provide technical support and training to those at lower levels to enable them to deliver good quality care and to update their medical knowledge. The contents and specific regulations of DOHA have been modified and adjusted over time,¹² but DOHA remains a responsibility of all hospitals. Hospitals at each level (central, provincial, and district) have to establish a DOHA center,

10. These principles are articulated in Decision 935/QĐ-BYT, dated March 22, 2013, to approve the project to establish and develop the model of family medicine clinic for the period 2013–2020.

11. The training of family medicine physicians was started in Vietnam in three Medical Universities (Hanoi Medical University, Ho Chi Minh City University of Medicine and Pharmacy, and Thai Nguyen Medical University) in collaboration with Boston University with a project funded by China Medical Board in 1998. In March 2000, the Ministry of Health officially recognized the family medicine specialty and allowed the training of level 1 specialists Level 1 in Family Medicine. In 2002, the Family Doctor Training Center was established at the three universities and began to train Specialist Level 1 in Family Medicine.

12. An updated circular to regulate DOHA was issued in 2016, for example.

department, or unit to provide support facilities at least one administrative level down. Key areas under DOHA include (i) training; (ii) research; (iii) providing direction of health care, including rotating staff to lower-level facilities; and (iv) working with other health facilities to develop relevant referral models. While the policy is clear, implementation varies across hospitals, depending on their resources and capacity. Field visits to hospitals in Bac Giang and Ha Nam confirmed that the hospital budget for DOHA is quite limited.

There has been continued emphasis on human resource policies in recent years targeted at strengthening skills at lower levels of care, to ease the problem of hospital overcrowding at the higher levels. Since 2008, doctors from higher levels of care have done rotations of three months or more at lower-level facilities.¹³ Similar to DOHA, this policy on rotation aims to improve the quality of care at the lower-level facilities, encourage transfer of technology, and provide on-site training—all with a view to reduce overcrowding at higher-level hospitals. This was reinforced in 2013 with a project on easing hospital overcrowding,¹⁴ with the development of a satellite hospital model as one of the solutions therein. The model uses a central-level hospital as a leading (nuclear) hospital to support a network of lower-level hospitals (satellites). Its objectives are similar to the abovementioned policies, with additional explicit objectives of reducing referrals from lower- to higher-level hospitals and strengthening the services that can be performed at lower-level hospitals. The scope of the project has expanded over the years¹⁵ and achieved some success—some hospitals report improvements in their medical techniques and services, as well as a reduction of referrals for some conditions. Implementation challenges common to both policies include limited financial resources, staff scarcity at lower-level facilities, and a mismatch of needs between levels of care. Incentives are also a key concern. Anecdotally, doctors from higher-level hospitals have used these programs as an opportunity to introduce patients to their own hospitals, potentially encouraging bypassing and thus making the problem of hospital overcrowding even worse.

While training and skills transfer have helped to improve services and health worker competencies at lower levels, they are insufficient to facilitate care integration. In the Vietnam context, this is true for several reasons. First, the abovementioned policies focus on skills transfer for curative care, for the most part. There has traditionally been a lack of emphasis on upskilling workers for preventive care services. As an extension to this first challenge, a second characteristic of these policies is that they have included only technical transfer for medical doctors. However, to deliver high-quality person-centered care, all health professionals should be educated as members of an interdisciplinary team with professional communication and team collaboration. To date, training and skills transfer programs in Vietnam have not included these aspects (Takashima et al. 2017). Finally, the policy on hospital autonomy has contributed to the tendency for hospitals to prioritize activities within their own facility to generate more income. This is one reason for the limited funding for training and DOHA activities, and also for the lack of emphasis on collaboration and coordination across levels of care to facilitate a person-centered approach.

ii. Micro environment

Organizational forms

Why does it matter? Care integration involves aligning providers that have previously been operating separately or independently. Even within a single administrative system, providers may not have

13. Decision 1816/QD-BYT, dated May 26, 2008, to approve the plan to rotate professional staff from higher- to lower-level facilities.

14. Decision 92/QD-TTg, for the period 2012–2020, approved by the prime minister.

15. So far 23 nuclear and 138 satellite hospitals have participated in the project. The model has been gradually expanded to district level and even to some private facilities.

interacted with each other for the purpose of right-siting of patient care—as is the case in Vietnam. The change process can involve associating providers directly under a single entity or indirectly through contracting arrangements. In some cases, integration may be led by hospitals, in others by ambulatory providers, and in still others by a new organizational form. In some countries, new organizational arrangements have emerged to manage and oversee the definition of functions, transparent decision-making, and risk management. Organizational arrangements for integrated care often also include patient engagement, as individual preferences are increasingly considered a priority focus for person-centered care. This includes providing information to people and helping them to develop skills for self-management. It can also take shape through formal channels for soliciting input and feedback on services, and through partnerships with community resources to better understand and respond to people’s needs.

To date, there have been no new administrative or managerial arrangements to establish new organizational forms for the purposes of facilitating care integration. Governance and accountability mechanisms continue to follow public sector administrative arrangements (as outlined in the earlier section on Governance, management, and leadership). There are also no official contracting agreements across providers. In the NCD programs in Bac Giang and Ha Nam, for example, there is no formal agreement among various provider levels on how they will manage the transfer of patients together. Each provider sees its function as a stand-alone entity; there is currently no concept of joint management of patients. When a patient is transferred across levels of care, it is the patient’s responsibility to seek follow-up care.

That said, there is very clear role delineation and specification of expected technical capacities for each provider level.¹⁶ In Bac Giang, the Provincial Department of Health (DOH) has developed a plan for managing NCDs, which stipulates the roles and responsibilities of each level of care. There have also been negotiations to shift care to lower levels. For example, the Provincial DOH sought to reach an agreement with the Provincial Social Security Agency that CHSs should receive the same set of medications as DHCs.¹⁷ This was intended to mitigate the problem of CHSs typically receiving a much smaller range of medicines, leading to complaints by patients and emerging as a key reason as to why patients bypass the CHS level (even for noncomplicated hypertension). With an adequate supply of the right kinds of medicines, CHSs would be better equipped to fulfill the tasks of prescription and dispensation of medicines for hypertension—and their role is specified as such.

In the absence of central-level guidance on what organizational form should be adopted to facilitate collaboration across providers, different practices have emerged at the provincial level. Bac Giang’s NCD program was initially led by the provincial hospital until the number of patients became too large to manage at a single hospital. The provincial hospital then sought to decant patients to lower levels when they could not cope. The program was thus expanded to the district level, and then to the commune level. This could be regarded as a “top-down” initiative at the beginning, led by the provincial hospital whose aim was to shift patients to lower levels. Conversely, in Ha Nam, with technical support from the World Health Organization (WHO) and MOH, the province adopted a “bottom-up” approach, with a strong push to manage NCD patients at the district and commune levels.

There is a very limited role for patient engagement and feedback in Vietnam’s health care system today. To our knowledge, there are no active or formal patient advocacy groups, not to mention any that would specifically advocate for more integrated and person-centered care. To a large extent, this reflects the government of Vietnam’s approach toward civil society organizations in the country: generally, they are neither encouraged nor empowered. While there are some informal disease-specific patient groups, these exist mostly at big hospitals for information-sharing among patients. Hospitals

16. Circular 43/2013/TT-BYT, dated December 11, 2013, by the MOH on division of technical level for health providers.

17. The team was not able to verify if availability of medicines at the CHS level was in fact the same as at the DHC level.

are required to conduct patient satisfaction surveys with patients after discharge, but there is currently no mandate for staff who conduct these surveys to engage with patients for continuous case management or to tailor care based on individual preferences and needs.

Role of primary health care

Why does it matter? PHC is foundational to all health systems and is central to integrated care reforms. In most high-performing health systems, the PHC setting is an essential delivery platform through which there is regulated and structured access to other providers such as specialists, diagnostics, and pharmacies. PHC serves as a first point of contact or care “home” for patients, serving a coordinating function across different levels of care and across a spectrum of care needs. Without a strong PHC function, it would be difficult to ensure continuity of care, appropriate follow-up with the same care provider (a primary care practitioner), and case management. This is especially important for people with NCDs and chronic illnesses. Requisites for effective PHC include empanelment and patient registration, risk stratification,¹⁸ gatekeeping, and accessibility to care (World Bank and WHO 2019).

Policy documents reflect the government of Vietnam’s recognition of the importance of PHC. Government documents underscore the importance of comprehensive and ongoing management of the health of local residents, provide direction for better collaboration across providers to ensure appropriate referral of patients from PHC to higher-level health care establishments, and emphasize the role of CHSs in NCD management. Vietnam’s 2015 Joint Annual Health Review (JAHR) featured a special topic: “Strengthening Primary Health Care in the Grassroots Health Care Network toward Universal Health Coverage,” with priority issues and recommendations for reform—including integration across provider levels.

Yet, in practice, there are significant constraints to establishing a PHC function that would facilitate care integration. First, there is neither a system of empanelment in Vietnam nor a mandate for it in the near future. Empanelment is the process by which all patients in a given facility and/or people in a geographic area are assigned to a primary care provider or care team. This can be done in two main ways: (i) by assigning patients solely by geographic region, which is administratively simpler but limits patient choice, or (ii) by allowing some elements of patient choice. In Vietnam, while there is an implicit understanding that each CHS is meant to care for residents in its catchment area, there is no requirement for patients to have an exclusive care relationship with their nearest CHS—or indeed, with any primary care provider at all.

The absence of empanelment is associated with a second constraint: the lack of a gatekeeping function. Fundamentally, the current policy environment in Vietnam goes against the principle and practice of gatekeeping. Instead, it allows a significant degree of patient choice. The Health Insurance Law entitles patients to seek care at any public facility at the district level or below by 2020 (it need not be a facility in the district where they reside). The cost of their care will be covered by health insurance reimbursement, with no financial penalties. The degree of patient choice will be even greater by 2021, with the intention to extend the policy to allow patients the choice to seek care at any facility within the province where they live. Recent changes to health insurance reimbursement policies have tried to discourage bypassing.¹⁹ However, the deterrent effect has not been strong because service prices have

18. Risk stratification involves proactively identifying individuals within an empaneled population who are at higher risk for developing poor outcomes or at risk for having high rates of utilization, particularly in hospitals. Having identified the high-risk users, interventions are designed to provide the necessary higher-intensity and coordinated care at PHC settings and to engage those users in limiting avoidable admissions and similar visits.

19. In the case of bypassing from the district to higher-level facilities for outpatient care, health insurance will reimburse nothing. In the case of bypassing to the central level for inpatient care, health insurance reimbursement will cover 40 percent of the normal reimbursement share (for example, for contributing members who receive 80 percent payment from insurance,

been substantially subsidized. If the policy to allow patient choice up to provincial-level facilities (including hospitals) is enacted in 2021, it would reverse any effects of this financial policy. More importantly, it would contradict the overarching policy intention of reducing hospital overcrowding by attempting to shift care out of the hospital setting. If Vietnam were to consider a system of empanelment, Turkey's experience could be instructive as it retained an element of patient choice (Box 1).

Box 1: Turkey's Approach to Patient Empanelment in Its Health Transformation Program

Turkey's National Health Transformation Program, which was launched in 2003, focused on the establishment of family medicine centers in every district of the country, each with a defined reference population. The Turkish government initially decided to geographically assign patients to family medicine doctors, creating "patient registrars." However, patients could request to switch out of their geographic empanelment to join the panel of another family physician of their choice. This freedom of choice prioritized patient agency but proved to be a challenge for continuity of care, particularly when patients moved between panels without effective communication between physicians. The process of transfer could take significant time.

If Vietnam were to implement a similar choice-based empanelment system, it would be imperative that the transfer of patient information as patients change providers be done seamlessly and efficiently through effective real-time information management systems.

Source: World Bank and WHO 2019.

There have been some efforts via NCD programs to set up patient registers and conduct risk stratification. In both Bac Giang and Ha Nam Provinces, a key part of the NCD programs have been efforts by CHSs to survey the population in their geographic area to identify patients at risk of NCDs and to encourage those who already show symptoms of NCDs to seek care. CHS staff do this via outreach (campaign) activities, conducting basic screening at households, writing up patient records that are kept at the CHS, and recommending that patients come to the CHS to get an official diagnosis and to seek follow-up care.

However, in the absence of empanelment and gatekeeping, health care providers are only able to provide continuity of care to the extent that patients come to their facility of their own volition and return to the same facility for successive visits. There is no requirement for patients to go to the CHS—or even to the nearest district-level facility—to seek diagnosis and treatment. As such, providers are not able to effectively track all patients even if they had been included in the original population survey. Discussions with district and commune-level health professionals in Bac Giang and Ha Nam confirmed that they do not proactively follow up with their patients to ensure that they keep their appointments. There are also shortcomings in the way patient registers are kept and in the use of information therein—this will be addressed in the section on Information environment and digital health.

Finally, limitations in availability of care and differences in quality of care—sometimes real, sometimes perceived—lead to reluctance on the part of patients to seek care in the PHC setting (especially at the commune level). By and large, physical access to CHSs is not an issue. A vast network of 11,000 CHSs spans the country, including in hard-to-reach areas. However, there remain gaps in service availability and readiness, and CHSs are not yet sufficiently equipped or enabled to tackle the shift in Vietnam's burden of disease. In 2016, only 70 percent of rural communes met the 2014 national commune health benchmarks. Moreover, those largely structural benchmarks say little about quality of care. CHSs' capacity to identify pregnancy risks during antenatal care and provide timely response and transport in case of obstetric emergency care is weak. It is also well-documented that the availability of NCD services and readiness of providers to offer such services is limited, ranging from prevention, detection, and

80 percent × 40 percent = 32 percent paid by insurance and 68 percent paid by patient). In the case of bypassing to the provincial level for inpatient care, insurance will reimburse only 60 percent of the normal amount (for example, 80 percent × 60 percent = 48 percent).

treatment, to long-term management (Duong et al. 2019; MOH 2015; Vu, Bales, and Bredenkamp 2019).

While many of the limitations are related to fundamental capabilities and knowledge of staff, there are also policy constraints that limit the type of care that CHSs are allowed to provide. As outlined in the introduction, health workers at the CHS generally have weaker abilities to properly diagnose and prescribe treatment for NCDs. Yet, our interviews in the provinces revealed that there are also limitations in what CHSs are allowed to do. For hypertension, CHSs are only permitted to dispense five days' worth of medication even for low-risk (Levels 1 and 2) patients, for whom follow-up care is recommended every four weeks. CHSs in some districts in Bac Giang and Ha Nam have sought provincial-level approval to increase the amount of medicine that CHSs are permitted to dispense to 30 days, but implementation is uneven. For diabetes, CHSs conduct blood glucose tests, but are not authorized to officially diagnose patients or administer insulin. Patients need to go to the district level or above for these services and, as a result, prefer to bypass the CHS altogether since treatment is not available there.

Interactions among providers

Why does it matter? Interactions and communications across provider levels to facilitate right-siting of care and enhance health system efficiency are at the heart of vertical integration. Without a systematic way to manage patient transitions from one provider to the next, there is a risk that patients will get “lost” in the system or receive inappropriate or wrong care. This is especially critical for patients with multimorbidities and to ensure proper medication management. From the provider perspective, coordination with other professionals / providers reduces the need for duplicate tests, provides information on care management and patient preferences (especially important for elderly and palliative care), and therefore ensures effective and good quality care. Tools to facilitate interaction across providers and to manage cross-organizational processes include (i) multidisciplinary teams both within and across organizations, (ii) care management plans and consultations between hospital and primary care physicians, and (iii) integrated care pathways. Often, mutually agreed structures and processes for communication (frequency, issues for discussion, etc.) are also established to institutionalize the interactions among providers.

Various policy documents include clauses on interaction and collaboration across provider levels. For example, under the satellite hospital project, national hospitals are meant to communicate with satellite hospitals on referral information, training, and consultation, and to provide technical advice to satellite hospitals as needed. Plans for strengthening the grassroots care network and NCD management also lay out a vision for “connection and referral of patients to higher-level health care establishments,” “collaboration across provider levels for transfer of patients,” and “updating and sharing of patient lists.” (This final point will be discussed in the next section on Information environment and digital health.)

However, for the most part, the tools to facilitate these types of interaction have not been put in place yet. We discuss the three aforementioned tools in turn.

NCD programs in Vietnam currently do not use multidisciplinary teams across provider levels in patient transitions and for follow-up care with patients. Formalized teams comprising various disciplines are considered essential to achieving provider collaboration, care coordination, quality improvement, and effective engagement with patients and communities. Experience from other countries has shown that follow-up care by teams comprising physicians, therapists, nurses, case managers, etc., for a designated period after discharge or treatment (e.g., three to six months) can significantly improve patient outcomes. Some providers were of the view that multidisciplinary teams were not necessary at the

district and commune levels for NCD care because each level only has one doctor who manages a particular disease anyway (maximum two at the district level), and therefore follow-up care would, by default, be with the same physician. Nonetheless, what is clear is that there are currently no designated care teams assigned to proactively guide patients through their transitions.

Most of the interactions among providers relate to technology transfer, professional support, and training provided by higher to lower levels of care. Under the COPD program in Bac Giang, a supervision team from the provincial hospital has, in previous years, provided consultations to districts on how to establish units for COPD management. In turn, districts provide professional support to CHS staff for COPD screening. The provincial hospital also plays a professional development role, providing on-the-job training for doctors from the district level. However, interactions among providers on a routine and ongoing basis for the purpose of coordinating patient care are not a common or instituted practice.

There is currently also no practice of discussing and using a shared care management plan across providers. In the diabetes program, for example, patients who are managed at the district level (either inpatient or outpatient) are transferred to the commune level when they are deemed to be “stable.” In this transition process, the patient is provided with medications and a prescription, advice on diet and exercise, and a summary note of his or her care. (This note is not conveyed between providers; it is only given by the discharging provider to the patient.) It is then entirely up to the patient to seek follow-up care and to navigate the health system, with no support from any health care professional—let alone a care management team. There is rarely face-to-face communication between DHC and CHS staff on cases that are transferred; follow-up among staff at different levels of care by phone is done only as needed, with no fixed frequency or content of discussion (e.g., periodic case review).

There is uneven use of clinical guidelines for NCD management, and integrated care pathways (ICPs) have not been developed yet. An ICP is a multidisciplinary outline of anticipated care, placed in an appropriate time frame, to help a patient with a specific condition or set of symptoms move progressively through a clinical experience to positive outcomes.²⁰ ICPs are important because they help to reduce unnecessary variations in patient care and outcomes. They support the development of care partnerships and empower patients and their caregivers. ICPs can also be used as tools to incorporate local and national guidelines into everyday practice.

In Vietnam, while national guidelines for NCD care have been developed by MOH or national associations,²¹ their use is not enforced. In addition, while the national guidelines include detailed information on diagnosis, treatment, and prevention, they do not include critical components of an ICP such as recommendations on appropriate settings and professionals to deliver each intervention in the pathway. That said, there have been efforts to provide guidance to CHSs on NCD management. As part of the hypertension program in Ha Nam, a simple protocol was developed²² to provide step-by-step guidelines on how to examine and diagnose a patient, criteria for referral to the district level, indications of use for various prescription medications, and notes on how to communicate with patients. The introduction of this protocol (since 2018) is a promising start to standardize patient care and work toward defined patient outcomes. However, its use is limited to the CHS. A useful next step would be to extend this protocol beyond the CHS and include interventions that should be provided at higher

20. For more information on ICPs, including a generic sample, please see

http://www.bandolier.org.uk/painres/download/whatis/What_is_an_ICP.pdf.

21. 2010 MOH guidelines on hypertension management and treatment: http://kcb.vn/wp-content/uploads/2015/07/huong_dan_chan_doan_dieu_tri_tha.pdf.

2018 National Heart Association Guideline on Hypertension diagnosis and treatment: <http://vnha.org.vn/data/Khuyen-Cao-THA-2018.pdf>.

Decision 3319: guidelines for diabetes care: <https://kcb.vn/wp-content/uploads/2017/08/Q%90C4%90-ban-ha%CC%80nh-HD-%C4%90ie%CC%82%CC%80u-tri%CC%A3-%C4%90T%CC%90-ti%CC%81p-2.pdf>.

22. With support from the World Health Organization.

levels of care. This would form an ICP for hypertension customized to the Vietnamese setting, and represent best practice of integrated care.

iii. Enablers

Information environment and digital health

Why does it matter? Access to accurate and up-to-date information on a patient’s care history is critical to enabling effective management of care across different providers and levels of care. This requires data management and communications systems for patient records and a clear plan on how to roll out the systems (i.e., the use of shared information becomes a core part of service delivery, workflow patterns, and health workers’ culture). Underlying requirements include privacy and security policies, information governance, and interoperability of systems. Technology can aid these requirements, including the use of shared patient registries, electronic medical records applied across service levels, electronic prescription systems with access across providers, telemedicine, patient reminders, information-sharing across provider levels (for transitional care and the implementation of clinical pathways), and provider performance monitoring. The information environment in support of care integration is often dependent on the country’s broader information infrastructure and the strengths and limits of electronic information-sharing.

A vast amount of data is recorded and stored in Vietnam’s public sector health system. This includes patient-level clinical and claims information in the health insurance claims database managed by VSS, the health management information system managed by MOH, and many others. By one estimate, Vietnam currently has approximately 1,000 different laboratory information systems (ADB 2017). Each national program or disease area typically also has its own software for reporting purposes, such as the national electronic immunization system and the electronic communicable diseases information system. At the provider level, each hospital has its own medical record system, and CHSs use multiple software. Data are predominantly collected for reporting and payment purposes; they are not routinely used by providers to support patient care.

These data are stored in a relatively fragmented way, and synchronization is constrained by the lack of a unique identification number for each Vietnamese citizen. There are multiple sets of records at various levels of care—with some even duplicated in various forms at the same facility—and most electronic records are not interoperable. The abovementioned databases are all based on different standards, which makes it difficult to develop aggregate reports that span more than one data source or disease area. Data entry on the part of health workers is also onerous due to multiple reporting requirements, each with its own form and different reporting standards. Currently, there is no holistic picture of an individual patient in any given setting or in a single database. Vietnamese citizens typically hold various identification numbers, each issued by a different ministry or scheme. The lack of a unique ID is potentially an obstacle to developing a single health record per person and is at present a constraint to the synchronization of various databases.

Providers do not share individual patient information among one another for purposes of patient care. Rather, patients bear sole responsibility for taking information with them when they move through the health care system. For referrals, the sending facility writes a referral letter to the receiving facility with a brief description of the medical issue and the service requested. However, referral letters do not include the full case history. Paper records and referrals are still the legally required and recognized method of documenting and transferring patient information in Vietnam, despite records also being entered into electronic systems. For NCDs, each patient is issued a booklet—typically by the DHC or CHS—to bring along to each appointment. Ostensibly, this booklet should be the most comprehensive record of the patient’s condition and care management. However, providers we spoke to had differing

views on this: provincial hospitals, for example, had more confidence in their own medical records kept at the hospital (also on paper). This suggests a lack of consistency in what is being recorded on paper, and how. Non-standardized and incomplete records run the risk of compromising patient care.

The NCD programs we reviewed provide an example of data fragmentation and the lack of use of these data for coordinating patient care. In both Ha Nam and Bac Giang, the CHS holds registers of patients with NCDs—one for each condition (hypertension, diabetes, and in Bac Giang’s case COPD as well). The primary format for the register is on paper, with a duplicate electronic copy. Individual patient records in the health insurance claims software serve as a de facto electronic patient register. The register held at the CHS is not shared with other facilities. As such, district and provincial facilities only have visibility on patients who seek care at their facility, for that condition. In addition, the Provincial Center for Communicable Disease only has a count of all patients with each NCD (reported by facilities), but there is no common register, province-wide, with patient-level records that can be used to track patient contacts and adherence to treatment regimens. While in principle it is possible for different facilities to pull up patient records in the health insurance claims system to see a person’s diagnosis and care history, in practice none of the providers we visited do this. Staff are familiar with the software but use it solely for claims and payment purposes with VSS.

MOH has ambitious plans to develop an e-health system over the coming years. Its plans include the establishment of a national health information exchange architecture with defined interoperability standards, an electronic health record for every citizen, and the consolidation of various software at health facilities to streamline data management and reporting. These ambitious plans have a long time horizon for implementation: systems will be developed and rolled out progressively over the next 10 years. Potential constraints to effective implementation include adequate funding and, at the provider level, appropriateness of software and training for health workers to ensure uptake. Looking even further ahead, MOH envisions the development of patient-support tools such as a digital map of facilities and a digital knowledge platform to support self-management and personal preventive care.

Performance management and monitoring and evaluation

Why does it matter? As a general principle, it is important to measure the impact of reforms and innovations to understand if they lead to the intended change or improvement. Integrated care reforms are typically extensive in scope and take place over a long duration. Measuring performance can thus support decision-making, implementation, and program adjustments along the way. Both theory and practice indicate that using a systems-based approach with a range of indicators across various dimensions (e.g., structure, process, outcomes, quality, integration, patient experience, and efficiency) provides a holistic view of performance. A well-enforced monitoring and evaluation system also contributes to accountability.

While there are systems in place for monitoring and reporting on a range of health indicators in Vietnam, overall performance management in the health sector remains relatively weak. Annually, a Health Statistics Yearbook and the JAHR are put out to report on progress in the sector. The Health Statistics Yearbook covers a wide range of indicators including population-level data and indicators on environmental health, input indicators (e.g., number of hospital beds, financing, human resources), output indicators (e.g., number of consultations and treatments for various services), and outcome indicators (broad categories of mortality and morbidity). The JAHR assesses progress on health policies, selecting a special focus topic each year. While these routine reporting mechanisms exist, there are several shortcomings. First, collating data from various departments, provinces, national institutes, and vertical health programs is an onerous task. Reporting is often delayed, incomplete, and inaccurate, creating difficulties in synthesis and compilation of the Health Statistics Yearbook (MOH Vietnam and HPG 2017). Second, these reports often consist of simple data tables and graphs, with limited analysis

of factors affecting health sector performance. Overall, existing monitoring and reporting systems fall short of an evaluative component; data are not actively used to assess and improve health system performance (MOH Vietnam and HPG 2017).

If Vietnam embarks on integrated care reforms, new data will need to be collected to measure and evaluate performance. Currently, NCD programs include some degree of performance measurement. In Ha Nam, for example, outcomes that are tracked include the number of NCD patients managed at the CHS level and the share of hypertension patients with blood pressure controlled and who meet treatment requirements. However, other elements of integrated care such as interaction among providers, use of care plans, and shared data to manage patients are not measured.

Drawing on global experience, performance metrics for integrated care can be categorized into five domains. They are defined in Table 6 below and include examples of metrics. Vietnam can consider collecting data in some or all of these categories.

Table 6: Performance Metrics for Integrated Care

Domain	Description	Examples of indicators
1. System level measures of community well-being and population health	Measures of mortality associated with specific diseases, to give us an idea about the effectiveness of medical care. Comparing deaths due to complications of specific chronic conditions to a benchmark can indicate the effectiveness of existing care processes for particular conditions.	Amenable mortality: <ul style="list-style-type: none"> • Mortality rates for selected chronic diseases, amenable to medical care
2. Service proxies for population health outcomes	To indicate the effectiveness of ambulatory care and coordination between ambulatory and inpatient facilities in the management of specific conditions. Understanding the factors that result in unplanned hospital readmissions can offer insight into gaps in discharge planning and integration with ambulatory providers.	Potentially avoidable hospitalizations: <ul style="list-style-type: none"> • Hospitalization rates for selected health conditions, amenable to medical care • Hospital readmission rates • Hospital admission rates for ambulatory care-sensitive conditions
3. Personal health outcomes	To assess the patient’s view of quality of life, ability to function independently, and self-manage chronic health conditions. This can be used to track improvements in care coordination and care integration over time. Data collected through surveys with patients and caregivers.	Quality of life and independent living: <ul style="list-style-type: none"> • Patients self-report on health, limitations in physical function, and functional disabilities. • Patients self-report confidence in managing most of their health concerns.
4. Organizational processes and system characteristics	Structural and process measures to monitor the functions of care integration processes in an ambulatory setting and during transitions of care. This measures the effectiveness of service coordination.	Care transitions, coordination, and planning: <ul style="list-style-type: none"> • Activities of health staff that contributed to the development and/or implementation of a plan of care for a patient or family. • Frequency of communication between PHC and hospitals. • Number of follow-up visits after a missed prescription or appointment.
5. User and care experience	Provides the patient’s view of the quality of communication with care providers.	Self-management: Patient’s experience in receiving support for self-managing health (through patient surveys).

Sources: European Commission 2017; JLN and Aceso Global 2018.

Note: PHC = Primary health care.

5. Key takeaways and suggested actions

Overall, Vietnam has a significant way to go before it will be able to deliver integrated care. How can Vietnam improve the way it delivers health services using the principles and design features of integrated care? In practical terms: what policies, interventions, and enablers need to be put in place? In this section, we outline suggested actions and next steps.

At the macro level, the legislative and policy environment will need to be beefed up. This assessment has highlighted that existing policy documents recognize the importance of care coordination and continuity of care, but to date there has been no concerted push for integrated care reform. Experience from other countries has shown that integrated care requires broad health system reform, starting with a robust legislative and policy environment. Concretely, Vietnam will need to enact legislation that are prerequisites for integrated care (empanelment, standards for health information), and should consider developing more concrete guidance to implement higher-level policies that already contain elements of care integration.

Second, Vietnam will need to establish governance and management structures for integrated care. There is no single model that Vietnam must adopt. Rather, Vietnam could consider adapting relevant approaches from different country examples and come to a consensus on an appropriate model for itself. Three examples are outlined in Box 2 below. While they vary in form and structure, what they have in common are clear governance and accountability mechanisms. Country experience also suggests that a clear vision and strong, sustained leadership are critical for change management. Therefore, strong and sustained leadership will be needed to manage challenges from the political economy perspective, as several entities and actors may be resistant to change.

Box 2: Governance and Leadership for Integrated Care: Examples from the United States, Europe, and Asia

US Accountable Care Organizations (ACOs): ACOs consist of networks of hospitals, diagnostic units, and primary care practices and are paid through modified fee-for-service, capitation, or global budgets. They are partnerships of providers to improve access, quality, and care integration as well as to contain costs. They have a management structure, but also contract out administrative functions. The network is collectively responsible to provide care to defined populations of beneficiaries. ACOs involve two levels of contracting: insurers contract and purchase from the ACOs, which in turn pay and incentivize contracted providers to deliver coordinated care. Most have introduced new models of care entailing disease management, primary care as single point of entry, patient care navigators, case management, multidisciplinary teams, prevention, and proactive outreach.

→ Example selected for its combination of features and innovations on governance structures, focus on quality of care and primary health care, and cost management.

Denmark's SIKS project and German *Gesundes Kinzigtal*: "Virtual" integration of governance and management structures. The Danish SIKS project established a cross-organizational leadership team, while in Germany a management company was set up to handle the network of providers and coordinate activities. In both cases, there was no actual integration of governance structures because of limitations in the wider system context. In Denmark, for example, there was a division of responsibilities for primary, hospital, and rehabilitation care between the regions and municipalities, making it difficult to integrate across administrative boundaries.

→ Example selected to show that care integration initiatives can be overlaid on existing governance structures. An option for Vietnam to consider if the context does not permit new governance and management structures.

Singapore's Regional Health Systems: New institutional arrangements established, including the appointment of group CEOs, new program offices with dedicated staff, and the appointment of advisory councils. Some networks signed a Memorandum of Understanding (MOU) among founding partners to align their collective expertise,

resources, and strategic objectives. The MOU is largely an expression of the spirit of coordination and integration, rather than a contractual relationship among the parties involved.

→ *Example selected to show that a combination of formal and informal governance tools can work, and also the importance of dedicated leadership and staff.*

Sources: Song 2014; Nolte et al. 2015; Teo 2015.

Third, new financing and payment mechanisms that create incentives for collaboration across providers can facilitate improvements in service delivery through better integration, including the following:

- i. **Reforming the payment method for curative care—currently fee-for-service—with a view to reducing hospitals’ incentives to keep patients.** A recently developed Action Plan for Diagnostic-related Groups (DRGs) in Vietnam suggests a way forward. Payment based on DRGs is a form of bundled payment for hospital services, categorized by diagnosis and severity. Paying the same amount per case within the same DRG creates an incentive to treat the same case type using fewer resources. Tertiary hospitals can focus on treating more complex cases with higher payments per case while referring simpler cases to lower-level hospitals, and vice versa. This will help to improve efficiency by incentivizing right-siting of care.
- ii. **Bringing the fundholding model for district hospitals more in line with the international definition of capitation.** This could include introducing hard budget caps,²³ allowing providers to retain surpluses, and updating the methodology for calculating the capitated rate and introducing needs and risk-based adjustments (Nguyen et al. 2015). This would reduce the financial risk to district hospitals and encourage them to increase the use of the commune level for primary health care, where costs are typically lower and care is more convenient to patients.
- iii. **Performance-based financing for NCD management in the PHC setting.** As a start, performance metrics could focus on what can be managed at the grassroots level: For example, relevant outcomes for chronic disease patients (share of patients with blood pressure / glucose levels controlled), and processes such as number of referrals between district and commune levels and hypertension diagnostic capacity at the CHS level.

Fourth, human resource policy will need to be aligned with the principles of integrated care. Vietnam could build on its existing family medicine model, which already aims to improve the quality of PHC and envisions primary care practitioners serving as the first point of contact and providing continuity of care to patients. Further developing the family medicine model in Vietnam will require a clear identification of the organizational model and the functions and duties of family doctors, and establishing a robust licensing regime. Training programs will need to be updated in line with the needs of the population. Policies to support the operation of the family doctor model (professional guidance, list of technical services, new payment methods, etc.) will also need to be considered. In addition, Vietnam could build on its long history of skills transfer and training from higher to lower levels of care by adding preventive care to training and skills transfer activities. Training could be expanded to include health professionals other than doctors who are critical for patient transitions across levels of care (e.g., medical social workers, care coordinators), and should incorporate elements of care coordination and provider collaboration.

Reforms at the macro level will impact what happens in the micro environment (provider level). A critical aspect to care integration in Vietnam will be to **strengthen the availability and quality of care at the PHC level.** This, in turn, depends on several elements at the macro level. With legislation and a

23. Currently, up to 60 percent of overruns can be reimbursed by VSS.

policy framework on patient empanelment in place, Vietnam should consider establishing a system of empanelment. This is a fundamental element of facilitating follow-up care for patients with the same set of providers, to ensure continuity of care through the life course. A revision of policies on what CHSs are allowed to do for noncomplex patient cases will also be necessary to expand their scope of services, especially for NCD management. This would increase the availability of services at CHSs, and patients may be more willing to seek care there instead of turning to higher levels of care. Better availability of care must go hand in hand with improvements in quality. This can be supported by professional guidance for practitioners through training and skills transfer (outlined above).

To facilitate patient transition and care management, it will be important to establish systematic modes of collaboration and interaction among providers. Many countries have used care planning tools, multidisciplinary teams, and integrated care pathways for this purpose. By and large, none of these have been used in Vietnam yet. A mandate for the establishment and use of multidisciplinary teams spanning across provider levels, in particular, will need to be made at the policy level. Some existing practices can be adapted to facilitate communication across provider levels, including the following:

- i. **Post-discharge case management and follow-up care.** As part of the hospital quality indicator framework, hospitals are required to carry out patient satisfaction surveys and report the results as part of the annual hospital quality assessment. This is typically done by phone by a hospital staff member (medical social worker or nurse). While the primary purpose is to enquire on patient satisfaction, staff sometimes also ask about the patient's medical status. The scope of this follow-up call can gradually be expanded to include case management, including questions on patient well-being, adherence with medication regimens, and last contact with a health provider. The mandate would need to be expanded to more patients (currently only done on a sample basis and quite limited) and with greater frequency.
- ii. **Integrated care pathways for NCD management.** The existing protocol for simple hypertension care in the CHS setting, which has been piloted in several provinces, can be extended beyond the CHS and include interventions that should be provided at higher levels of care. This would form an integrated care pathway for hypertension customized to the Vietnamese setting and represent best practice of integrated care.

Key enablers will also need to be put in place. First, better integration and use of data will be needed.

A legal basis will need to be established for the introduction of unique IDs, to mandate a shift away from paper records to an electronic system, and to enable data sharing. Establishing a system for data sharing and encouraging a culture of using health data to inform service delivery will be critical to facilitating care integration, such as to support the implementation of clinical pathways and to enable better organization of care. Leveraging the wealth of data that is already collected in Vietnam, a good starting point would be to review the health insurance claims database managed by VSS to analyze trends in diagnoses and utilization, and to understand what data can be shared across providers and used to manage patient care across settings.²⁴ This database could also be used to identify high-risk, high-frequency patients. Managing the care of patients who frequently get admitted to hospital or

24. The health insurance database contains comprehensive information, including both primary and tertiary care, and adopts international coding for diagnoses. Information on drugs reimbursed by health insurance is also captured in the database, although medications not listed in the formulary and paid for out-of-pocket by patients are not. A recent assessment of the VSS database found that it contains valuable information that could be used to provide epidemiological and economic evidence for clinical and policy decisions (Ng et al. 2019), but currently it is neither routinely nor sufficiently utilized for these purposes.

whose utilization patterns appear as an outlier could help to significantly reduce costs, improve patient outcomes, and serve as an early initiative on care integration.²⁵

Finally, a performance management and monitoring and evaluation framework for integrated care will need to be developed. Reporting on key indicators (e.g., amenable mortality rates) will need to be improved, and some new data (e.g., patient-reported outcomes, user and care experience) will need to be collected. Collecting and analyzing such metrics will help us understand health system performance, strengthen the case for why integrated care is critical for Vietnam, and evaluate the impact of integrated care reforms.

The policy actions and health system reform ideas outlined above will need to be properly sequenced and may take many years to plan and implement. Experience from other countries has shown that the sequencing of reforms is critical for the successful implementation of integrated care. Ideally, an incubation or preparation phase is required when overall policy, legislative, and governance frameworks are established and the reform is designed through a consultative process. Rollout of the reforms would follow, with some of the key elements being piloted and scaled up. Proper sequencing is important because relevant policy and legislative frameworks need to be put in place before reforms are implemented, and many of the reforms are interlinked and cannot be approached in isolation from one another (Somanathan, Finkel, and Arur 2019). Overall, integrated care reform is a long-haul endeavor that involves significant shifts at the policy level as well as cultural change for health practitioners and patients. Many countries spend numerous years designing and implementing integrated care reforms, and revisions and refinements are ongoing, on a continuous basis.

In the short term, then, Vietnam could consider a “stepping-in strategy” to initiate integrated care practices in the way it delivers services, even if a full-fledged reform is not yet underway. Initiatives that have been tried in other countries include (i) small-scale programs for targeted groups, such as disease management for patients with multiple chronic conditions; or (ii) new care arrangements, such as transitional care planning for patients being discharged from hospital. Transitional care planning has been shown to be especially beneficial for those who are admitted to hospital frequently (three or more times in six months), significantly reducing hospital readmission rates and improving care arrangements for these individuals in the community setting. The purpose of a stepping-in strategy is twofold: First, to serve as a proof-of-concept for integrated care in Vietnam and to demonstrate the good outcomes that can be derived from it, so as to convince policy makers and practitioners of the benefits of change. Second, assessments of these stepping-in strategies can help to inform medium- to long-term changes that will be needed in the health system and can pave the way for broader integrated care reforms.

25. Patients who have the highest care needs are often the ones who cycle in and out of hospitals and utilize significant health care resources. Nicknamed “hot spotters” (<https://www.newyorker.com/magazine/2011/01/24/the-hot-spotters>) or “frequent admitters,” studies and programs by various doctors and hospitals have shown that focusing on this group can improve their outcomes, while significantly reducing costs to the health care system.

Annex A Review of Vietnamese Policy Documents for Relevance to Care Integration

Document	Relevance to care integration (excerpts)
<i>Service delivery model</i>	
Plan to protect, care, and promote people's health for the period 2016–2020 (139/KH-BYT, 2016)	<ul style="list-style-type: none"> • Expand and develop the satellite hospital network (details in next row). • Strengthen technology transfer to lower levels, including through rotation of practitioners, training, and distance counseling. • Use medical technology, especially at lower levels of care, to facilitate conditions for patients to access quality medical services in the nearest place. • Develop a management model for chronic diseases in the community. • Implement the family doctor model for elderly health care in the community. • Establish an optimal referral network, simplify procedures, strengthen linkages between levels, and ensure continuity of care. • Improve capacity in examination, detection, screening, and referring patients to higher levels in a flexible and effective way, and at the same time, receive, monitor, and implement treatment for patients who are referred from higher levels.
Decision on approving satellite hospital project (774/QD-BYT, 2013)	<ul style="list-style-type: none"> • To improve the capacity of medical examination and treatment for satellite hospitals through activities such as training, technology exchange, and telemedicine. • Role of national hospitals: To assess capacity and training needs of satellite hospitals, develop training plans, and advise satellite hospitals on organizational improvement. In addition, to transfer patients in the recovery stage for treatment at satellite hospitals. Satellite hospitals do not refer patient to the national hospital except for emergency cases. Finally, national hospitals are to develop telemedicine to communicate with satellite hospitals on referral information, training, and consultation, and to provide technical advice to satellite hospitals, as needed.
Decision on approving the Vietnam Health Program (1092/QD-TTg, 2018)	<ul style="list-style-type: none"> • Coordinate and integrate examinations to detect NCDs in periodic health examinations. • Ensure compatibility and integration of professional and technical solutions of existing programs, projects, and schemes in health and other sectors to implement the Vietnam Health Program's objectives and targets.
Approving the program for support and development of grassroots health care network in the new context (348/QD-TTg)	<ul style="list-style-type: none"> • Strengthen and improve the organizational structure of the grassroots level. • Comprehensive and ongoing management of health of local residents... [including] connection and referral of patients to higher-level health care establishments. • District health centers must... regularly give directions, provide professional support, and build close medical connections with other district health centers and other CHSs. • Digitize grassroots health care activities and manage health records of each resident.
<i>Organizational forms / Roles of providers</i>	
Define the functions, tasks, powers, and organizational structure of the district health center (37/2016/TT-BYT, 2016)	<ul style="list-style-type: none"> • District health centers are to provide technical and professional guidance for regional general clinics, maternity homes, commune / ward / town health stations, village health centers, village midwives, and health facilities of agencies, schools, agricultural farms, and enterprises in the district. • To conduct continuous training for staff; training and updating professional knowledge for village health workers and other subjects according to the Department of Health.
Guide the functions, tasks, and powers of the commune health	<ul style="list-style-type: none"> • CHSs provide professional and operational guidance to village health workers. • CHSs collaborate with relevant agencies in carrying out the work of population and family planning in the area.

Document	Relevance to care integration (excerpts)
stations (117/2014/NĐ-CP, 2015)	
Referrals among health care facilities (14/2014/TT-BYT, 2014)	<ul style="list-style-type: none"> • Specifies instances in which upward or downward referral is appropriate. • Specifies roles of referring hospital in specific cases, including the requirement to provide information to patients to make sure they can understand the scope of benefits and health insurance payment... to contact the medical facility expected to transfer the patient to and make a final inspection of the patient's condition before transferring, and to provide detailed information on the patient's condition and requests for support.
<i>NCD management and elderly care</i>	
Guideline for prevention, early detection, diagnostics, treatment, and management for NCD at grassroot level (3756/QĐ-BYT, 2018)	<ul style="list-style-type: none"> • Specifies roles of village health workers, CHSs, and district health centers, including collaboration across provider levels for transfer of patients, updating and sharing of patient lists for management and population monitoring, follow-up and referral to health facilities in a timely manner.
The Health Care for the Elderly Project for the period 2017–2025 (7618/QĐ-BYT, 2017)	<ul style="list-style-type: none"> • Develop and disseminate long-term care models for older persons. • Improve the legal framework on health care for older persons. • Consolidate and develop the system of statistical indicators on management of health care for older persons.
<i>Digital health</i>	
Decision to issue a plan to implement electronic health statistics (5454/QĐ-BYT, 2018)	<ul style="list-style-type: none"> • Develop and issue a guideline to connect data between medical statistics software and software management of units. • Support provinces and cities in implementing electronic health statistics. • Support for extracting reports and connecting data across software. • Aggregate data from localities and units through health statistics software, forming a health statistics database.
<i>Human resources</i>	
Guideline for the pilot for model of family doctors and family doctor clinics (16/2014/TT-BYT, 2014)	Family doctor tasks are to comprehensively and continuously manage health of individuals, households, and the community ; to screen for early detection of disease... to provide counseling services on health; disease prevention; and prevention and control of health risks to improve the capacity of individuals, households, and the community in taking initiative in protecting, caring for, and improving their health, etc.

Source: Authors, based on review of policy documents

Note: Other documents above stipulate HR elements such as training, professional support, and skills transfer.

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