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Innovative Integrated Health And Social Care Programs In Eleven **High-Income Countries**

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ABSTRACT High-income countries face the challenge of providing effective and efficient care to the relatively small proportion of their populations with high health and social care needs. Recent reports suggest that integrated health and social care programs target specific high-needs population segments, coordinate health and social care services to meet their clients' needs, and engage clients and their caregivers. We identified thirty health and social care programs in eleven high-income countries that delivered care in new ways. We used a structured survey to characterize the strategies and activities used by these programs to identify and recruit clients, coordinate care, and engage clients and caregivers. We found that there were some common features in the implementation of these innovations across the eleven countries and some variation related to local context or the clients served by these programs. Researchers could use this structured approach to better characterize the core components of innovative integrated care programs. Policy makers could use this approach to provide a common language for international policy exchange, and this structured characterization of successful programs could play an important role in spreading them and scaling them up.

> result is poor client and caregiver experiences and suboptimal outcomes, despite significant costs. The importance of the challenge of providing integrated health and social care to highneeds populations, combined with the failure of existing policies and delivery systems to meet that challenge, has led many high-income countries to invest in new approaches to providing integrated health and social care. A series of reports released over the past few years have ex-

programs they participate in.^{1,2} Moreover, these high-needs people often rely extensively on family members and friends as unpaid caregivers. Reports from the United States,³ England,⁴ and European countries⁵ have concluded that these high-needs populations are not well served cusing innovations on specific segments of high-

igh-income countries face the

challenge of providing effective

and efficient care to people who

have both medical needs (which

are related to the management

of complex medical conditions) and social care

needs (related to functional deficits and social

and behavioral risk factors). Although these

people constitute a small proportion of the pop-

ulation, they account for a large proportion of

the expenditures of the health and social care

by fragmented health and social systems. The

amined the experience of the US and other industrialized countries with new programs of care for high-needs populations, and these reports have identified some common features and core design elements of these new programs.^{3,6-8} These reports recognize the importance of fo-

needs populations.^{3,6-8} Each of these segments

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(for example, frail elderly people, adults with complex chronic medical conditions, or adults with serious mental health conditions) has a unique mix of clinical and social care needs. The use of need-based definitions of specific population segments is essential to target service delivery appropriately. Another common theme of the reports is the need for programs to coordinate care delivery—not only across health care providers and settings, but also between health and social care delivery systems. 3,6-8 A third common theme is the importance of actively engaging clients in shared decision making and self-management. 3,6-8 The focus on engagement should extend beyond the clients to include their caregivers, when appropriate.

Our study used a structured survey to provide insights into the ways in which these core design features of integrated health and social care for populations of high-needs clients and their caregivers (segmentation, coordination, and engagement) have been implemented in innovative programs in different high-income countries. The programs selected for our sample were deemed to be innovative in the sense that they involved new activities or partnerships and provided services to clients and caregivers that were different from the services that similar people would normally receive in the relevant country.⁹

Our study provides an overview of the extent to which a set of defined strategies and activities have been implemented in thirty innovative programs from a group of eleven high-income countries. The structured survey allowed us to characterize these programs in a standardized fashion and to identify consistencies and variations. We hope that our study can provide the basis for shared learning and support the spread of integrated health and social care programs for high-needs populations.

Study Data And Methods

SAMPLING STRATEGY The study used a purposive two-stage sampling strategy. In the first stage, completed in the period January-March 2018, the Commonwealth Fund provided a list of contacts in each of eleven high-income countries (Australia, Canada, France, Germany, New Zealand, Norway, Sweden, Switzerland, the Netherlands, the United Kingdom, and the United States). These contacts included people in university or other academic settings, delivery programs, or policy-making roles. We sent each one a letter that outlined the purpose of the study and contained a structured nomination form, soliciting their input on innovative programs of which they were aware. The nomination form asked for information on the program in terms

of the population served, as well as on the program's activities, data collection and evaluation, and current status. It also asked for a statement about what made the program innovative in the contact's country in terms of partnerships, activities, and impact on client care.

In the second stage, completed in April-May 2018, the nomination forms were reviewed by the authors and Commonwealth Fund staff. Through a consensus process, programs were selected for inclusion based on their being innovative, in the sense that they involved new ways to organize and deliver care in the relevant country, and being committed to data collection and evaluation. The final sample was selected to be representative across the eleven countries and target populations. The names, countries, and target populations of the thirty programs in the study are in the online appendix.¹⁰

DEVELOPMENT AND TESTING OF STRUCTURED **SURVEY** The primary purpose of the survey was to obtain structured information on the activities the programs had implemented to segment populations into distinct groups with different needs, coordinate care, and engage clients and caregivers. The authors based the design of the structured survey of activities on a review of recent reports on programs that integrated health and social care in high-income countries. 3,6-8 This led to the identification of two activities for segmentation (the definition of eligibility rules and the application of those rules in recruitment processes), five for coordination (centralized client intake, primary care leadership, integration of health and social care services, management of care transitions, and data-sharing processes), and three for engagement (commitment to shared decision making, support for client self-management, and support for caregivers). To look for variation in levels of activity in each case, categories of low, medium, and high levels of each activity were created. A set of definitions for each activity and the levels within each activity were developed in an iterative process conducted by the authors and informed by the recent literature.

The structured survey tool used these definitions as well as a set of prompt questions to categorize each program's activity level (low, medium, high) for each of the ten activities. The text answers to the prompt questions were used to validate the categorization of the level of activity as well as to provide specific program operational details.

The structured survey of program activities was tested on two programs that were well known to the authors. Based on this test, some minor modifications were made. A copy of the structured survey tool used to produce the data

for this article is in the appendix.¹⁰ The structured survey also contained a brief section that asked for information on the current status of the program and on its evaluation.

DATA COLLECTION AND VALIDATION We contracted with teams or individuals in different countries to collect the data in the summer of 2018. These contractors were not staff of the selected programs. Instead, they were either the contacts who had originally nominated the programs or members of organizations that had conducted studies of the programs. The data collectors were asked to use key informants and program description materials to complete the survey. To ensure a standardized data collection process, the authors provided each contracted data collection team or individual with a standard training webcast as well as ongoing telephone and email support during the process. The initial data were collected in the summer and fall of 2018, and materials were reviewed as they were submitted. The authors followed up with the data collectors to make sure that the surveys were complete and the data collection methods were consistently followed.

To validate the reported activity levels, the authors reviewed the text provided in the structured survey responses with the level designation. Where a mismatch between the reported level and accompanying text was identified, the authors followed up with the data collectors and resolved the issue. The final data validation was completed in the spring of 2019.

LIMITATIONS This study had a number of limitations. First, the sample of programs was drawn from a small number of high-income countries, and the findings might not be generalizable to other countries.

Second, we used a policy and research network to identify potential programs of interest in each country. We cannot guarantee that the programs are representative of the full range of innovative programs in those countries.

Third, the structured survey tool was developed specifically for this study and has not been used in previous research. Although we used an iterative and collegial process based on previous reports and our own research to design the survey, the specific framework underlying the survey tool is unique. Like any theoretical framework, it provides one approach to describing a complex system.

Fourth, the data came from structured conversations with key informants and from previous written reports on the programs of interest. However, our approach allowed us to use text descriptions to validate the categorization of activity levels presented in the exhibits.

Study Results

SAMPLE The survey sample consisted of thirty programs that met our criteria for being innovative. Four of these programs were pilot programs that had not yet secured stable funding, six reported that they had stable funding but were at a single site, and the remaining twenty reported that they had stable funding and provided services at more than one site. Ten programs reported that they targeted frail elderly people; four programs targeted adults with serious mental health conditions, addictions, or both; and sixteen programs targeted adults with complex chronic medical conditions. We used these three reported target populations to stratify the presentation of results. All thirty programs reported that they had undergone some form of external evaluation: Five reported an evaluation by the funder, and the remaining twenty-five reported an evaluation done as part of a research study.

SUMMARY Overall, our survey showed wide variation in the levels of segmentation, coordination, and engagement activities across the thirty programs we studied. Only one program was categorized as having a high level for all ten activities. Fifteen programs had medium or high levels for all ten activities. All programs had at least one medium- or high-level segmentation, coordination, or engagement activity.

There were consistently high levels of activity around defining eligibility rules to identify population segments eligible for integrated service provision, but some variation in the processes used to recruit clients. There was strong commitment to coordinating intake processes and primary care leadership but variation in the integration of health and social care services, managing transitions in care, and timely sharing of data. There was consistently strong commitment to shared decision making and client self-management, but variation in coaching and support for caregivers.

SEGMENTATION ACTIVITIES Exhibit 1 shows how the two program activities aimed at segmentation (definition of eligibility rules and application of those rules) are distributed across levels of activity (low, medium, high) by target population.

▶ DEFINITION OF ELIGIBILITY RULES: The study aimed to determine the extent to which specific eligibility criteria had been defined for the program. The programs for frail elderly people and adults with serious mental health conditions or addictions all were categorized as having medium or high levels of activity around eligibility definition. Programs in the high-activity category had strict criteria that were sometimes related to insurance program eligibility—for example, coverage by Medicare and Medicaid

EXHIBIT 1

Numbers of programs in eleven high-income countries categorized as having low, medium, or high activity aimed at segmentation, by target population



SOURCE Authors' analysis of data collected in 2018. **NOTES** The text and appendix contain the relevant definitions of segmentation activities and their levels of activity. The target populations for the programs were frail elderly people (FE), adults with serious mental health conditions or addictions (MH), and adults with complex chronic medical conditions (CC).

for some US programs. In other countries, strict criteria were related to detailed needs assessments or to demographic characteristics or care settings. Programs in the medium-activity category had well-defined criteria but also allowed for some flexibility based on provider input. The sixteen programs targeted at adults with complex chronic medical conditions included a more diverse mix of eligibility-definition activities than the other programs did. Some of these programs focused on care for well-defined disease categories such as chronic obstructive pulmonary disease and had strict criteria to ensure that participants were appropriate patients. Others targeted less clearly defined populations that reflected the concept of medical and social complexity and were categorized as low activity.

▶ APPLICATION OF ELIGIBILITY RULES: Segmentation of potential clients for entry into programs involves not only the definition of rules for program eligibility as described above, but also the development and implementation of a process to recruit clients to the program based on those rules. For this activity, the low-activity category was used for programs in which referral was informal and unstructured, the mediumactivity category was used for programs in which a team member had a process to identify and recruit clients, and the high-activity category was used for programs in which the identification and referral process was built into a data system that alerted providers that a person was a potential client. The majority of the programs were categorized as medium activity. These programs typically had a staff member who worked in the community and with providers to recruit clients. However, for each target population there were examples of less structured application of eligibility rules. For example, one mental health program recruited clients who were walkins to a storefront clinic. At the other end of the continuum, another mental health care program used information obtained from data on emergency department visits to proactively alert staff about potential clients. Overall, there was a mix of technology-based and data-driven proactive methods in sophisticated settings and more informal personal methods driven by program staff or potential clients in less formal settings.

COORDINATION ACTIVITIES Exhibit 2 shows how the five program activities aimed at coordination (centralized client intake, primary care leadership, integration of health and social care services, management of care transitions, and data-sharing processes) are distributed across levels of activity by target population.

▶ CENTRALIZED CLIENT INTAKE: Centralized intake of clients into these innovative programs involved a specific interaction between program staff and a client in which information on needs and services was shared. The high-activity category meant having a designated staff member whose main responsibility was to conduct a structured intake of all clients, the mediumactivity category involved a structured process with multiple intake staff members, and the lowactivity category involved a more informal process in terms of both structure and staffing. The majority of programs had a clearly defined intake process completed by a designated program employee, for whom the intake process was a main part of the job description. Other programs allowed different staff members to conduct the intake. A minority of the programs lacked a clearly staffed and structured intake process and conducted the intake process using existing data with no direct interaction between a team member and the client.

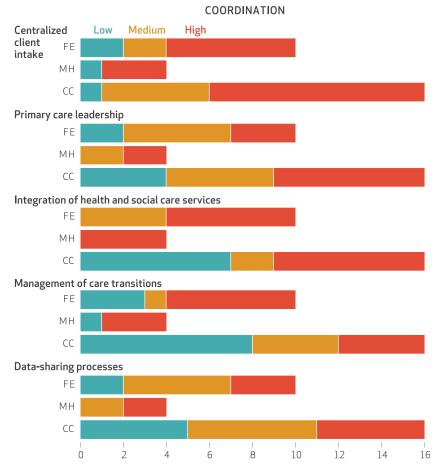
▶ PRIMARY CARE LEADERSHIP: The majority of programs reported that they fell into the high-activity category in our survey and had a primary care provider as the person responsible for managing the care needs and care processes for the client. A substantial number of programs fell into the medium-activity category. This level of activity involved clients' having regular contact with one or more primary care providers without any single provider having comprehensive responsibility for care. These programs often involved having a primary care provider as a member of a multidisciplinary team and having a care manager or coordinator who was responsible for organizing the full range of services for cli-

ents. Instead of being primary care physicians or nurse practitioners, coordinators were often nurses or other trained health care providers. The small number of programs categorized as having a low level of activity in primary care leadership included those in which medical specialists or members of other professions, such as pharmacists, were responsible for managing care.

- ▶ INTEGRATION OF HEALTH AND SOCIAL CARE SERVICES: The study aimed to examine the extent to which the programs included coordinating health care services with services from social care providers—such as social services and financial support services. The high-activity category included programs that provided a wide range of social services in a highly coordinated manner, and the medium-activity category included programs that reported providing many social services without a high level of coordination. Programs categorized as low activity provided a limited number of social services with minimal coordination. All four of the mental health programs, as well as the majority of the programs for the frail elderly, were categorized as high activity. None of the programs serving those two populations were categorized as low activity. Many programs serving clients with chronic medical conditions were categorized as having low levels of coordinated social services, although some of these programs were in the high-activity category.
- ▶ MANAGEMENT OF CARE TRANSITIONS: The study aimed to assess the degree to which a program used either structured protocols or welldefined care plans to manage and coordinate care as clients made transitions between providers or settings of care. Programs were categorized as high activity if they had clear protocols that were routinely used, medium activity if they had some protocols but they were not routinely used, and low activity if there no protocols. The majority of programs targeted at frail elderly people or adults with serious mental health conditions or addictions were categorized as high activity. However, half of the programs for people with chronic medical conditions were categorized as low activity and lacked transition protocols.
- ▶ DATA-SHARING PROCESSES: The study examined the data infrastructure platforms and processes that support data sharing among different providers in the programs. Programs that give providers timely access to data through a single shared data structure were categorized as high activity, programs where data are shared but not on a single platform were categorized as medium activity, and programs without a process for sharing data were categorized as low activity. Overall, one-third of programs were

EXHIBIT 2

Numbers of programs in eleven high-income countries categorized as having low, medium, or high activity aimed at coordination, by target population



SOURCE Authors' analysis of data collected in 2018. **NOTES** The text and appendix contain the relevant definitions of coordination activities and their levels of activity. The target populations for the programs were frail elderly people (FE), adults with serious mental health conditions or addictions (MH), and adults with complex chronic medical conditions (CC).

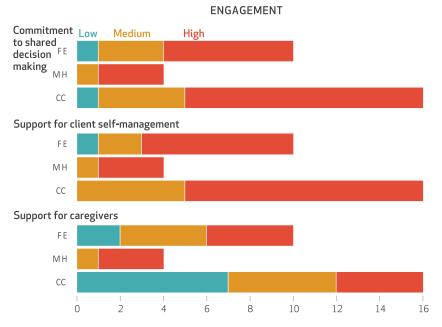
categorized as high activity. Another third were in the low-activity category. The latter often reported that they relied on case conferences and one-to-one communication to share information.

ENGAGEMENT ACTIVITIES The survey was focused on organizational commitment and support for client and caregiver engagement and did not directly ask clients or caregivers whether they had been engaged or supported. Exhibit 3 shows how the three program activities—commitment to shared decision making, support for client self-management, and support for caregivers—are distributed across levels of activity by target population.

► COMMITMENT TO SHARED DECISION MAK-ING: To be categorized as having a high level of activity, a program had to have a strong organizational commitment to, support of, and training of staff in shared decision making among

EXHIBIT 3

Numbers of programs in eleven high-income countries categorized as having low, medium, or high activity aimed at engagement, by target population



SOURCE Authors' analysis of data collected in 2018. **NOTES** The text and appendix contain the relevant definitions of engagement activities and their levels of activity. The target populations for the programs were frail elderly people (FE), adults with serious mental health conditions or addictions (MH), and adults with complex chronic medical conditions (CC).

providers, clients, and their caregivers. Medium activity involved institutional commitment but no clear support of or training in shared decision making, and low activity meant that there was no clear strategy to support shared decision making. The majority of the programs for all three target populations were categorized as having high activity, signaling a high level of commitment. Some of these programs had implemented ongoing training in the principles and application of shared decision making for all staff members, while others had made that a priority for the provider who had the most contact with the client. Only two programs reported no clear commitment to shared decision making and fell into the low-activity category.

▶ SUPPORT FOR CLIENT SELF-MANAGEMENT: To be categorized as high activity, a program had to demonstrate strong organizational support for, training in, and a culture that supported client self-efficacy and self-management. Medium-activity programs provided some support, and low-activity programs did not have self-management as a part of their organizational strategy. The majority of programs were categorized as high activity. The most robust of these programs had not only built organizational capacity to support client self-management but al-

so tracked outcomes such as client activation and clients' capacity to self-manage. Only one of the thirty programs reported that it did not have a strong organizational commitment to client self-management.

▶ SUPPORT FOR CAREGIVERS: To be categorized as having a high level of activity, a program had to demonstrate strong organizational commitment to and training of staff in caregiver support and coaching. Medium activity involved institutional commitment but no clear training, and low activity meant no clear strategy to support caregivers. Programs that served adults with serious mental health conditions or addictions had high levels of commitment to caregiver support and coaching. On the other hand, caregiver support and coaching was not a clear component of the organizational strategy of seven of the sixteen programs targeted at adults with complex chronic medical conditions.

Discussion

Our structured survey was based on recent reports that recommended an integrated approach to health and social care programs for highneeds populations.^{3,6-8} The integrated approach is designed to target segments of the population that have similar health and social care needs, coordinate both health and social care services for their clients, and engage clients and their caregivers in shared decision making and supporting client and caregiver self-management. We used a purposive two-stage sampling process to identify thirty programs in eleven highincome countries. We focused on programs that were innovative in the sense that they organized care in new ways and that the care they provided to clients and their caregivers was different from the usual care in the relevant country. We used our structured survey to characterize the implementation of specific activities related to segmentation, coordination, and engagement in those programs. We found both consistency and variation in those activities.

Most of these programs had well-defined criteria for identifying and targeting segments of the population. Many had implemented a centralized intake process that provided an important first step toward defining the needs of clients and their caregivers and identifying services that could be offered. Most programs had a strong role for primary care providers. The programs consistently prioritized shared decision making and client self-management.

Along with this consistency, we found some variation. Although programs routinely had well-defined eligibility criteria, there was variation in how these were used to recruit clients.

Some programs recruited passively, in the sense that they let clients come to them. Others were more active and had staff members who would work within the community or care setting to find and recruit eligible clients. Still others were proactive and had client alerts built into the data infrastructure. Some programs relied on team meetings or case conferences to share information about clients and caregivers, while others had sophisticated data-sharing infrastructure. In the case of both recruitment and data sharing, it can be argued that the availability of a sophisticated data structure has a role in driving the variation that we observed across programs.

Variation in some other activities appeared to be associated with the target population. Programs for frail elderly people or adults with serious mental health conditions or addictions appeared to have a stronger focus on coordinating a wide range of health and social care, managing transitions, and supporting and coaching caregivers, compared to programs focused on adults with complex chronic medical conditions. This may be the result of fundamental differences in clients' needs among these groups. This type of variation could reflect appropriate service delivery and program design.

Policy Implications

We believe that our study has some important research and policy implications.

From the research perspective, we see our use of a structured approach to collecting data on complex integrated health and social care programs in collaboration with teams in different countries as an important step toward creating an ongoing international research collaboration. The survey tool we used in this research is shared in the appendix to this article. ¹⁰ We continue to work on refining the tool and the data collection process with colleagues in other countries, and we will make the updated tool available to interested parties.

From a policy-making perspective, the ability to characterize integrated care innovation from different countries in a standardized fashion creates a common language that is essential to effective international policy exchange. This structured characterization and common language allow policy makers to better understand reforms and innovations designed to improve integrated care for high-needs populations in their own countries and to share ideas and have a dialogue about these reforms with countries that are facing similar challenges. For example, a key goal of the project that funded this study was to provide a structured characterization of integrated care innovations for discussion at a high-

level international policy symposium hosted by the Commonwealth Fund in November 2018, and this article is another step toward sharing that information with an international policymaking audience. (A related article in this issue of *Health Affairs* explores specific policies that are used to support the integration of health and social services.)¹¹

We think that our finding of consistency in many of the innovative programs we studied shows that there is international agreement on some core components of innovative integrated health and social care. The fact that thirty innovative programs from eleven countries had common features-targeting well-defined highneeds populations, coordinating health and social care, and engaging clients and their caregivers-supports the notion of a shared vision. The variation in some of the finer details of program implementation reflects another important reality for policy makers: Programs should be designed to fit the target populations they serve and should build on existing resources. For example, the lack of a sophisticated datasharing infrastructure does not preclude the provision of innovative health and social care. Countries without such infrastructure can rely on other strategies such as case conferences and care coordinators to share information. Similarly, programs that care for adults with serious mental health conditions or addictions might rely on a wider array of health and social care services, compared to programs for adults with complex chronic medical conditions.

Another facet of our work that we think has important policy and research implications is our finding that all of the programs reported that they had some form of evaluation. At a superficial level this is very reassuring, but it is less so at a deeper level. Although we did not conduct an exhaustive and comprehensive search of evaluations, we did attempt to work with the programs and conduct some basic online searches to identify the publicly available evaluations. That effort revealed wide variation in the scope and nature of the evaluations we found. We did identify some important efforts by funders (for example, England's National Health Service)12 and by large research consortia13 to provide a consistent and comprehensive approach to evaluating multiple innovative programs. However, it is very difficult to identify successful innovations in a systematic way, given the lack of timely and high-quality evidence. This points to the need for creating an international effort to conduct consistent highquality evaluations.

The final, and perhaps most important, policy implication of our study is that it could help set the stage for the spreading and scaling up of innovative programs. Our study deliberately focused on innovative programs—those that provided care in a way that was fundamentally new and different from how care was usually provided in the relevant country. To transform care, policy makers clearly need to know about those innovative programs. However, the real value to policy makers in terms of population impact and system transformation is not just finding innovations, but spreading and scaling them up. Attempts to spread and scale up complex health care interventions, such as integrated health and social care, have proven to be difficult and largely unsuccessful. 14,15 In a recent Health Affairs article, Tim Horton and his colleagues made the point that codifying or characterizing these complex interventions in a way that is meaningful and useful to those being asked to adopt them is an important first step in addressing the "spread challenge."15 Our work could help to address this challenge by providing a basis for codifying complex integrated health and social care innovations. In this way, it could have an impact on the care of those with the greatest need.

Conclusion

We used a structured survey to identify some common features in the implementation of thirty integrated care innovations in eleven high-income countries. We also found some variation related to local context or the populations served by these programs. Researchers could use this structured approach to better characterize the core components of innovative integrated care programs. Policy makers could use the approach to provide a common language for international policy exchange, and this structured characterization of successful programs could play an important role in spreading them and scaling them up.

The initial results of this work were presented at the Commonwealth Fund's Twenty-First International Symposium on Health Care Policy, "Transforming the Health Care System for Patients with

Complex Health and Social Care Needs," in Washington, D.C., November 14–16, 2018, in the form of a presentation at the symposium and a confidential early draft of results that was circulated to

symposium participants. The work was funded by a grant from the Commonwealth Fund (No. 20181368).

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