



**SPAIN**

Reinventing  
Chronic Care  
Management for  
the Elderly

Ribera Salud Hospital System | Valencia, Spain

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## Spain

# Reinventing Chronic Care Management for the Elderly

Ribera Salud Hospital System | Valencia, Spain

**Provider Type:** Public-Private Municipal Health System

**Total Patients Served in Program:** 4,500

**Program Name:** Complex Care Plan (Plan de Atención al Paciente Crónico)

## PART 1: BACKGROUND

### Country Profile

Spain's diverse population of over 47 million has a high burden of chronic disease and is aging.<sup>1</sup> The World Health Organization (WHO) estimates that over 90 percent of all deaths in Spain can be attributed to chronic, non-communicable diseases (NCDs), and 17 percent of the population is over the age of 75.<sup>2</sup> All Spanish citizens are guaranteed access to health care services through a universal health insurance system, which offers coverage for preventive care, disease management, hospital care, and long-term care. Public health care services are overseen nationally by the Spanish National Health System (NHS), which helps prevent, manage, and treat complex diseases while offering cost-effective care. Public health care is funded through taxes, and authority is in the hands of the regional governments. The federal government plays a coordination role. Health care represents approximately 9.6 percent of GDP (7.1 percent public sector and 2.5 percent private sector).<sup>3</sup>

### Health System Profile

In the autonomous Spanish region of Valencia, Ribera Salud, a private integrated health care provider, has contracted with the government of Valencia to manage the provision of public health care services in over two dozen municipal departments of health in the region. The Ribera Salud health system is a public-private partnership that departs from Spain's traditional health care system of public ownership, employment, delivery and financial control. The model was developed as a "design, build, operate, and maintain" public-private partnership. This means that while the government continues to own the facilities, Ribera Salud takes responsibility for managing the delivery of services, employs many of the physicians involved in care, and provides property maintenance of all hospitals and primary care centers in the network. Some of the primary care centers include short-stay units for short duration inpatient care. Ribera Salud receives a capitated payment and is accountable for quality and cost of care for its population.

Approximately 720,000 patients receive care from hospitals and primary care centers in the Ribera Salud network. This case study focuses on Ribera Salud's **Complex Care Plan**, which integrates medical care and social services for elderly patients with more than two chronic diseases. Today, over 4,500 lives are enrolled in the program in two municipalities: Torrevieja and Elche-Vinalopó.

Torrevieja has the highest concentration of elderly Spanish and foreign retirees in the country - over 25



*Ribera Salud's Dr. Carmelo Serrano consults a patient's health record at Toscar Primary Care Center in Elche, Spain.*

percent of the population in Torrevieja is above age 65. In 2012, Ribera Salud launched the Complex Care Plan signaling a cultural change to respond to specific needs of patients with two or more chronic diseases who require integrated care across many **health care professionals (HCP)** to stay as well as possible and in the home. As Ribera Salud holds a contract with and receives a single non-adjusted capitated fee per person in the region from a single payer, which is the regional government of Valencia, the main goals of the whole system are to keep the entire population as healthy as possible and achieve the best value for money and use of the hospital. The Complex Care Plan is an initiative that responds to this strategic population health management goal for a segment of Ribera Salud's elderly patients.

The Complex Care Plan coordinates care across multidisciplinary HCPs including doctors, nurses, home care aides, mental health professionals, paramedics, social workers, the patient's home caregiver, and the patient. This more integrated approach to managing patients with two or more chronic diseases aims to provide not only better care for the patient, who receives specialized attention across primary, secondary or home-based care, but also reduces total cost of care (e.g., through decreased emergency room use). To date, the program has resulted in significant reductions in unnecessary and avoidable hospital admissions and readmissions (**Section 3**).

During its implementation, Ribera Salud has faced challenges and developed key lessons learned including the importance of cultivating a strong team-based working environment, integrated data systems, an emphasis on patient health, the use of patient-centered indicators, and provider satisfaction. These are explained in more detail in **Section 4**.

### **Ribera Salud's Payment Model**

The Spanish NHS allocates a fixed capitation payment of 639€ (- \$690) per person per year (in 2014) to cover all primary and hospital care services for any person in the geographic region. This payment is not risk-adjusted and excludes outpatient pharmacy prescriptions, domiciliary oxygen, sanitary transportation, or prosthesis. For the services that are covered, the patient does not pay any copay or out-of-pocket cost at the point of service. In Spain, patients are free to choose where or when to seek care throughout the country; that is, patients do not face limitations or penalties when seeking health services in other municipalities or health networks.

“ Ribera Salud has a built-in financial mechanism to provide efficient and quality care that keeps attributed patients within their network.”

Ribera Salud is eligible for incentives to keep patients within its regional network. If a patient attributed to Ribera Salud seeks care at an out-of-network public medical facility, Ribera Salud must pay the other network for the patient's care costs at the regionally set price. The regionally set price is often higher than the internal price Ribera Salud has set, which means that they lose money when patients seek care outside the network. Moreover, the outside providers are not part of Ribera Salud's care coordination and improvement activities, which may also lead to higher costs. Therefore, Ribera Salud has a built-in financial mechanism to provide efficient and quality care that keeps attributed patients within their network.

The payment model for Ribera Salud is an at-risk corridor in which Ribera Salud can keep all savings up to 7.5 percent of their capitated payment. Any additional profit returns to the Valencia government. Ribera Salud is responsible for any excess costs above the capitated payment of 639€ per person per year.

## PART 2: INNOVATIONS IN CARE

### Ribera Salud's Complex Care Plan

Ribera Salud's Complex Care Plan (Plan de Atención al Paciente Crónico) was launched in 2012 to help advance accountable care for an elderly patient population with two or more diseases or chronic conditions.

“The goal of the program is to transform care delivery by focusing on evidence-based clinical pathways and patient-centered outcomes.”

The goal of the program is to transform care delivery by focusing on evidence-based clinical pathways and patient-centered outcomes. The structure supports team-based care, or care that is provided by an integrated group of clinical or non-clinical HCPs and family members, through financial incentives based on a team's ability to meet quality benchmarks for their patients. Care teams are multi-disciplinary and provide coordinated medical and social care in both settings. Non-clinical team members include social workers, mental health professionals, home aides, caregivers, and the patient.

### The Complex Care Plan's pillars for successful chronic and complex care are:

- Base models of care on the needs of the people at all stages of life
- Address all levels of chronic conditions
- Proactively involve all care providers in the management of complex patients
- Stress the importance of coordinating primary and specialty care by including an internal medicine specialist in each health center

- Empower nurses to increase their involvement in chronic care services
- Identify high quality offices as “best therapeutic” places of care
- Follow health promotion and disease prevention as the guiding principles of care
- Integrate all the different levels of care including those that move beyond a traditionally medical paradigm, such as social and public health
- Promote and use technical resources
- Endorse patients and caregivers as active participants in the care process

The Complex Care Plan fits in well with the rest of Ribera Salud, which promotes population-wide prevention and self-management support for better population health.

**PART 3: CHARACTERIZATION OF ACCOUNTABLE CARE AT RIBERA SALUD**

This case study uses the five pillars of the Global Accountable Care Framework to describe Ribera Salud’s Complex Care Plan. The framework pillars include: population, performance measures, continuous improvement, payments and incentives, and care coordination and transformation **(Figure 1)**.

*Figure 1: The Five Pillars of Accountable Care and Key Innovations at Ribera Salud*

| Conceptual Pillar                           | Definition  | Key Success Factor at Ribera Salud   |
|---|---|--|
| <b>Population</b>                           | Identifying a defined group of patients for which providers are responsible   | Identifies elderly patients with two or more chronic diseases within the geographically-defined area   |
| <b>Performance Measures</b>                 | Defining set of targeted performance measures that meet patient-centered outcomes   | Aligns measures to performance-based incentives  |
| <b>Continuous Improvement</b>               | Evaluating performance through learning and continuous improvement feedback loops   | Continuously reviews indicators to improve quality   |
| <b>Payments and Incentives</b>              | Establishing aligned payments, non-financial incentives, and rewards to outcomes that matter to patients  | Supports variable financial incentives for achieving quality outcomes for the entire care team (clinical and non-clinical)                               |
| <b>Care Coordination and Transformation</b> | Implementing delivery and care transformation reforms that improve low-cost, high-impact, or high-value, care coordination including team-based structures, better decision support systems and enriched IT and analytics | Fosters team-based care across care continuum via electronic health records (EHRs) with increase in caregiver and patient involvement in treatment plans |

**Population: What population group is included in the model?**

As of December 2014, 4,539 patients are enrolled in the Complex Care Plan (**Figure 2**). Patients are allocated to the Complex Care Plan based on health screenings and evaluation of electronic health records (EHR), which are used to identify patients with the following characteristics:

- Over 75 years old (the average patient is 79 years old)
- Dependent persons
- End-of-life status or frequently admitted to the hospital (e.g., frequent flyers)
- Have two or more of the following chronic conditions: heart failure, chronic kidney disease, chronic obstructive pulmonary disease (COPD), chronic liver disease, neurological disease, diabetes, cancer, or osteoarticular disease
- Receiving multiple medications, dialysis, or non-invasive mechanical ventilation

*Figure 2: Complex Care Plan patients enrolled by main diagnostic category (as of December 2014)*

| Main diagnostic category                      | Number of patients enrolled | Percentage of total enrolled |
|---|-----------------------------|------------------------------|
| Heart failure                                 | 1,148                       | 25.29%                       |
| Chronic kidney disease                        | 715                         | 15.75%                       |
| Chronic Obstructive Pulmonary Disorder (COPD) | 410                         | 9.03%                        |
| Chronic liver disease                         | 52                          | 1.15%                        |
| Neurological disease                          | 1,266                       | 27.89%                       |
| Diabetes                                      | 278                         | 6.12%                        |
| Cancer  | 319                         | 7.03%                        |
| Osteoarticular disease                        | 351                         | 7.73%                        |
| <b>TOTAL</b>                                  | <b>4,539</b>                | <b>100%</b>                  |

Patients can be included in the Complex Care Plan if the case management team believes that they could benefit from enrollment even if he or she does not fit into the disease diagnostic categories.

**Performance Measures: What are the types of measures that are used in the model?**

Ribera Salud uses a national set of quality indicators that the local government monitors.<sup>4</sup> These include process measures, clinical indicators, and patient satisfaction surveys. Internal review of quality indicators is conducted monthly through EHR analysis and patient satisfaction surveys. In its analysis, Ribera Salud differentiates between process indicators, such as whether a patient has a care plan, and performance indicators, such as whether a care plan results in reduction in hospital readmissions or other changes to other clinical measures. Some indicators used in the program are used to calculate staff incentives on a monthly, quarterly or yearly basis (**Figure 3**).

Figure 3: Performance Measures for the Complex Care Plan

| Performance Measures   | Linked to Payment |
|--|-------------------|
| Number of Patients in Case Management  | Yes               |
| Patient Care Plans Created (includes palliative care plan, end-of-life directives) | No                |
| Fulfillment of the Care Plan   | Yes               |
| First Outpatient Visit   | No                |
| Ongoing Outpatient Visit   | Yes               |
| Emergency Room Use   | Yes               |
| Hospital Admissions  | Yes               |
| Hospital Readmissions  | Yes               |
| Patient Use of Online Health Portal  | Yes               |
| Patient Use of Home-Based Care   | No                |

**Continuous Improvement: What system is in place for performance improvement?**

The Complex Care Plan is constantly improved and refined based on feedback from real-time quality measures. Indicators are reviewed on a monthly basis, and care teams meet twice monthly to make corrections. The coordinating team for the Complex Care Plan extracts analytic data and communicates this information to the teams responsible for the patient. Additionally, the local government of Valencia publishes benchmarking information to compare the different care providers and regions on patient-centered outcomes and expenditures. As a result, Ribera Salud diligently works to provide higher-quality care than is provided at other public health facilities to retain patients and receive a high score on quality and effective care metrics. Compared to other health facilities, Ribera Salud offers more services at primary care centers, shorter wait times, extended facility hours, and an effective hospital emergency department.

**Payment and Incentives: How are financial and non-financial incentives used in the model?**

Achieving a high standard of care quality is critical to the success of the overall business model of Ribera Salud. As described earlier, Ribera Salud receives a fully capitated payment without age or risk adjustment. In other words, the annual capitated payment is provided regardless of the actual state of the patient’s health. In 2014, this fee amounted to 639€ per person. This sum is readjusted every year for inflation. Within the Valencian system, money follows the patient, which means that patients are free to seek public



*A patient receives a blood glucose test at a Ribera Salud clinic.*

care anywhere in Spain, but Ribera Salud is responsible for reimbursing an unaffiliated provider for their patients. Out-of-network care is oftentimes more costly, so Ribera Salud, as a company, is highly incentivized to offer high quality care to increase the likelihood that patients will choose to receive care within their network.

Staff at Ribera Salud are classified as either civil servants or direct employees. The salary is based on the nationally established salaries for their fields, but it is more competitive than other regions because Ribera Salud offers bonuses to the entire care team for attaining high quality outcomes.

Physician bonuses can amount to up to 35 percent of their potential salary and are tied directly to individualized patient outcomes and satisfaction (**Figure 3**). Some of the indicators included in incentive payments are: number of patients included in case management, fulfillment of health plan (accomplishment of the care plan defined), patient readmissions, and use of the online health portal. These financial incentives reward team members for delivering quality care so as to not skimp on care while trying to meet the bottom-line or keep costs low. As part of the public-private partnership, Ribera Salud must also meet Valencia's government-selected care benchmarks to maintain its contract with the local government. This creates an environment that promotes alignment between outcomes that matter to patients and incentives and financial support for health professionals.

**Care Coordination and Transformation: What types of team-based structures or data analytic support are used to reinforce care transformations?**

Care under the Complex Care Plan is coordinated through a primary health care team known as the *Equipo de Atención Primaria* (EAP). The team helps manage two or more diseases and is responsible for assuring the provision of quality care. EAPs are comprised of primary care physicians, nurses, social workers, mental health professionals, and home care aids. Each EAP is led by an internist who serves as a diagnostic and therapeutic lead consultant for all procedures. Additionally, the internist must coordinate and consult with specialists. The internist also monitors stable patients who are admitted to the hospital and those under home care. There is a hospital home unit that assumes responsibility for unstable patients within their homes. Once a patient has been stabilized, the EAP will continue to oversee treatment.

Implementing better data analytics to support care decisions along with other cost-reducing innovative technologies are the backbone to the Complex Care Plan's success. Health information technology (IT) tools and the EHR system are crucial under this coordinated model to allow up-to-date patient medical history to be shared between the multiple team members across offices. In addition, a call center and an online patient portal (Portal de Salud) were established to grant patients and care givers 24 hour access to medical records.

The online portal provides a continuous communication channel that supports interactive patient self-management, which decreases unnecessary emergency room visits while increasing patient accessibility. Patient inputs into the online portal feed directly into the EHR for first-hand information for improved and coordinated care delivery.

## Ribera Salud's Results

Early data from the Complex Care Plan patients reflect improved care coordination (**Figure 5**). Since December 2012, emergency department use by plan patients decreased by 16 percent, overall hospital admissions decreased by 28 percent, and readmissions reduced by 26 percent. Cost-effective evaluations of the Complex Care Plan are still underway. Further, the capitated payment that Ribera Salud receives from the local government is 20 percent lower than the payment that the local government allocates to other public providers in the Valencia region.

Figure 4: Key Results Year from 2012-2014

| Measure                   | Before the inclusion in the Complex Care Plan (2012) | After the inclusion in the Complex Care Plan (2014) | Variation (%) |
|---------------------------|--|---|---------------|
| First outpatient visits   | 5,688  | 5,190   | -8.76%        |
| Ongoing outpatient visits | 15,700   | 16,122  | 2.69%         |
| Hospital emergencies      | 6,752  | 5,680   | -15.88%       |
| Hospital admissions       | 2,933  | 2,123   | -27.62%       |
| Hospital readmissions     | 266  | 197   | -25.94%       |

## PART 4: THE FUTURE OF ACCOUNTABLE CARE AT RIBERA SALUD

### Challenges and Policy Solutions

The Complex Care Plan program seeks to improve patient health outcomes through care coordination and higher-quality care. The goals are well-supported by accountable care principles that align resources and incentives. Despite promising results, Ribera Salud has encountered numerous systemic and political challenges in the implementation of accountable care. Three major challenges are described below.

#### Challenge 1: Embracing a shift to patient-centered care

Traditionally, the Spanish NHS has been structured around secondary care with less focus on primary care. Additionally, long-term care has traditionally been underdeveloped because end-of-life care has been viewed as the responsibility of a patient's family. As a result, specialists have typically been the most respected health care professionals. However, there has been limited integration of care across providers and public expectations focus more on access to high-quality care for the complications of chronic diseases than active engagement in the prevention of complications.

Ribera Salud has sought to overcome this structural and cultural barrier by prioritizing primary care and shifting resources used in the delivery of care toward a more patient-centered and accountable model. Specifically, the company's financing model has enabled it to implement numerous policies to advance integration within budgetary constraints. For example, Ribera Salud has linked variable bonuses to overall patient care outcomes to increase the financial incentives for risk-bearing to foster a care transformation that is patient-focused. Furthermore, a central tenet of the Complex Care Plan program is the creation of personalized health plans in which a patient can elect home care services. Instead of isolating patients at

home, the Complex Care Plan program actively involves caregivers, home aids, and social workers as integral members of care team.

### Challenge 2: Concerns regarding the private delivery of public goods

In Spain, health care has been publicly-financed and delivered by public institutions and providers. The Ribera Salud public-private partnership model faced great political and social opposition because it allowed



*Patients and clinicians participate in a +Salud health promotion event.*

a private company to provide a public service. To mitigate rising health care costs while addressing concerns about access to quality care, the Spanish government issued legislation in the 1990s to permit private companies to manage health care services if they complied with various financial and quality benchmarks. Key to this legislation was a provision granting the government to abolish a contract if services delivered were considered to be substandard. When the government of Valencia built the first hospital in the municipality of Alzira to implement a regional public-private

health infrastructure, it created a government position in each department of health to monitor and audit the quality of the service provided. This position is meant to ensure that the public good is properly administered. This government representative works alongside the hospital's General Manager, participates in decision-making, monitors the contract, audits the quality of care provided, is responsible for overseeing of the civil servants, receives complaints from patients, and imposes penalties as necessary.

### Challenge 3: Health Care Employment Structures

Most of the physicians working in the Spanish NHS are civil servants and unionized. Initially, the union refused to contract with a private provider because of concerns about lower salaries and increased workloads. However, the contract stipulates that the staff is able to retain their public service union status even while working as a private contractor. New staff hires are direct employees of Ribera Salud even if they can maintain their public position on personal leave. Additionally, the inclusion of a performance-based bonus on top of the base salary means that providers and nurses receive higher total salaries than the national average. Furthermore, as financial incentives are tied to meaningful quality measures and not volume, there are high rates of employee satisfaction. There has been a cultural change as patient needs and outcomes are now highly valued. Physicians support, and are motivated by, the model's patient-centered vision.

### Policy Implications

The public-private partnership model for health care delivery has been recognized for its innovative approach to cost-effective, high quality care delivery and for the results it has achieved. Ribera Salud has demonstrated a decade of improved patient outcomes and cost savings; the new Complex Care Plan program seeks to build on prior successes and improve care coordination for complex patients. Based on the Ribera experience, policymakers should consider the following when designing programs to integrate medical and social care:

*Create team-based structures for complex care supported by financial incentives for care quality.* The Complex Care Plan program created teams that work together to manage the care of complex patients. Financial incentives are individualized within Ribera Salud, but the measures are reliant on the team-based care structure so each team member is invested in the overall care of a patient.

*Invest in practical integrated data-sharing.* Ribera Salud invested in an integrated EHR system that shares key information from patient medical histories across the entire network. Team members, including social workers, can access patient data in real time to inform care decisions.

*Focus on overall patient wellness.* Given that the Ribera Salud system is fully capitated at the population level regardless of disease status, there are strong incentives to encourage early illness identification and proper management of a patient's health to prevent premature disease advancement. Ribera Salud established a patient education program, entitled *+Salud* (or *+Health*), to promote healthy behaviors. The program emphasizes patient wellness by fostering improved self-efficacy and knowledge in disease self-management. A portion of the *+Salud* program is directed for the Complex Care Plan patients and their caregivers to promote self-management. Caregivers receive specialized training to learn how to provide care for complex patients without being overburdened and have ongoing access to support tools and the care team.

*Shift to patient-centered outcomes.* All patients in Ribera Salud's Complex Care Plan create personalized care plans to prioritize outcomes, elect services, and plan end-of-life care. Personalized plans capture individualized indicators to measure the quality of patient care. Depending on the patient's priorities, the team responsible for the patient follows established evidence-based clinical pathways to provide care. Patients can select home care as an option in the health care system, which is a newly prioritized care concept. Given the nature of the Complex Care Plan population, home care is a key setting that is integrated into the overall health system to increase care coordination and improve the patient's health outcome. The standard EHR significantly assists home care aids to provide harmonized care as part of the team.

## Next Steps

Ribera Salud is currently building on the successful experience of the Complex Care Plan to enhance accountability to the patient. The goal is to enhance the patient experience while advancing clinical reforms. In order to better target patients, Ribera Salud plans to develop a predictive model for population segmentation. Clinically, Ribera Salud plans to refine care delivery through introducing clinical pathways in the existing IT system and creating a planning wizard to help organize health care teams' workflow. Lastly, Ribera Salud wants to enhance the patient experience by fostering electronic health through telemonitoring, e-consultations with patients, mobile technology, and other technological development.

## Endnotes

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