Financing Integration and Payment for Quality

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Agenda

1. Health in Spain
2. Integrated Delivery Systems
   - Kaiser
   - Accountable Care Organizations
3. New Payment Methods
4. P4P in Alzira
5. Key Takeaways
6. Discussion

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1. The Good News and Bad News

- Among EU nations, Spain has one of the longest life expectancies at birth (79 men / 85 women).
- Spain has experienced declines in mortality rates associated with:
  - Diabetes
  - Smoking
  - Low infant birth weights

Source: World Health Organization

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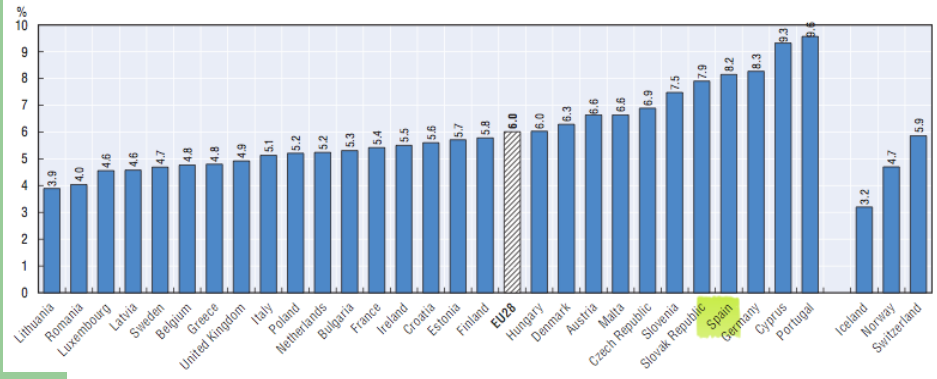
Diabetes: EU and Spain

AEH2

As of 2013, 8.2% of Spanish adults aged 20-79 have diabetes, compared to the OECD average of 6.0%.



Source: IDF (2013), Diabetes Atlas, 6th Edition

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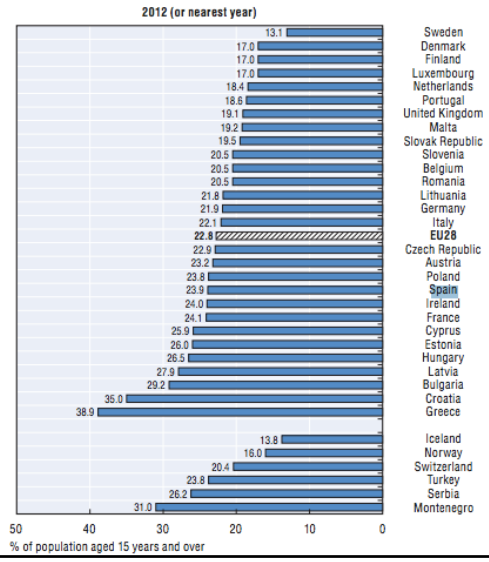
Slide 4

AEH2 I changed to EU since this graph doesn't show all OECD countries and just OECD countires.
Ann Hollingshead; 02/01/2015

Smoking: EU and Spain

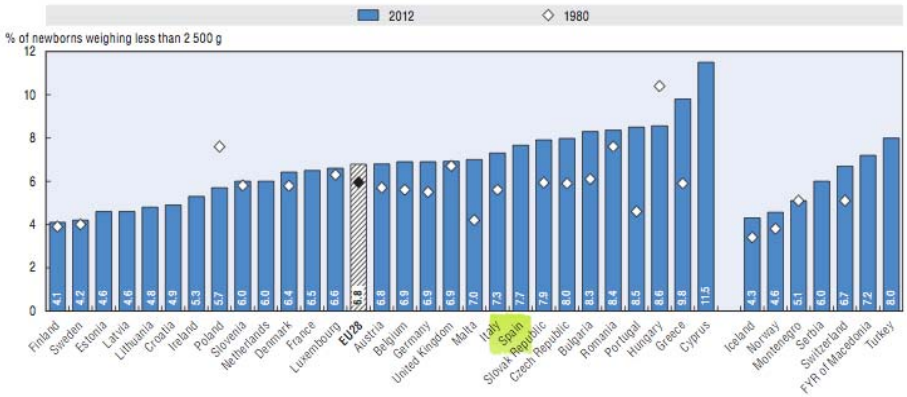


Roughly 24% of Spaniards aged 15 years and older smoke on a daily basis, compared with the EU average of 22.8%.

Source: OCED. *Health at a Glance,* 2014.

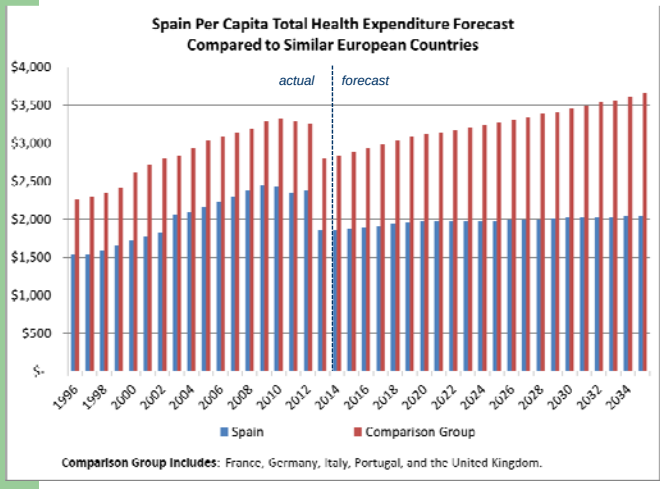
Low Birth Weight: EU and Spain

In Spain, 7.7% of infants are low birth weight, compared to the EU average of 6.8%.



Source: OCED. *Health at a Glance,* 2014.

Health Expenditures Forecast



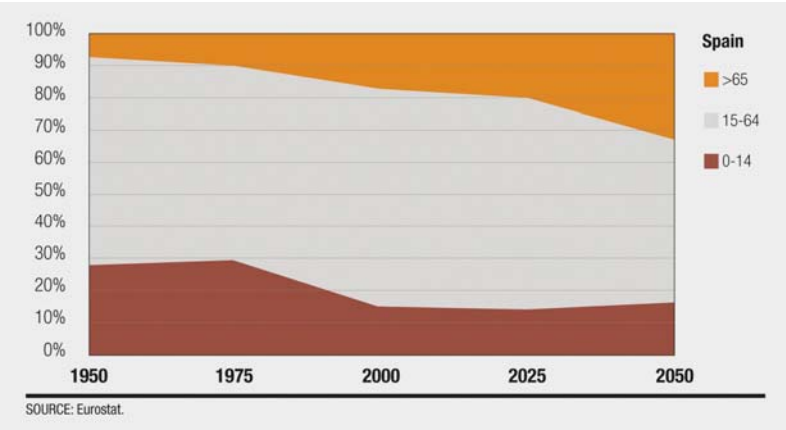
Between 1996 and 2010, Spain's per capita health expenditures grew by 3.4% annually. After 2014, they are projected to rise by 0.5% annually.

Among the comparison countries, these figures are 2.8% and 1.2%.

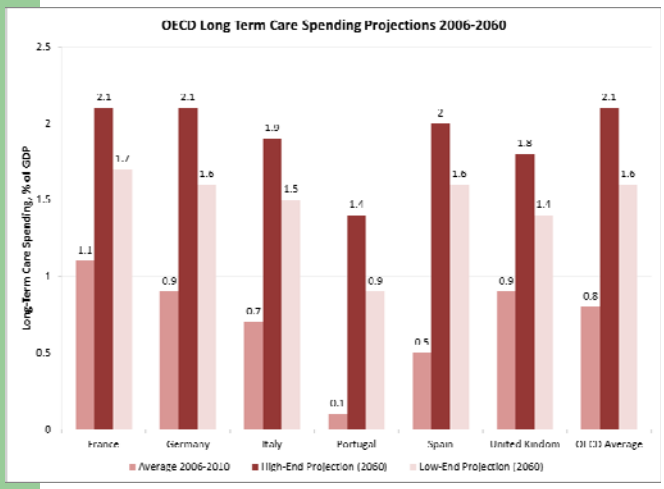
Unofficial and confidential estimates.

Spain's Aging Population

By 2050, roughly 35% of Spain's population will be over 65.



Long-Term Care Forecast



Spain's long-term care spending is expected to rise from 0.5% of GDP to 1.6-2.0% of GDP by 2060.

Among OECD nations, spending on long-term care will rise from 0.8% of GDP to 1.6-2.1% of GDP by 2060.

Source: OECD, 2013, *Public spending on health and long-term care: a new set of projections.*

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Key Takeaways

- How can Spain deal with the impact of aging and new technologies with a flat level of healthcare spending?
- Must become more efficient and effective.
- How? – Integrated healthcare delivery systems

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2. Integrated Healthcare Delivery Systems

- What is integrated care?
- Kaiser
- Accountable Care Organizations
- La Ribera

Meg Kellogg

INTEGRATION

Coordinated Care | Continuity of Care | Comprehensive Coverage

Integrated Care	Primary care through hospitalization and beyond: all levels coordinated
Integration	Methods, processes and models used to achieve this coordinated care

Why Integrate?
To improve the experience and outcomes of patients and to enhance overall efficiency of health systems

Meg Kellogg

Eight Characteristics of Integration

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Kaiser's Operating Model

- Provide one-stop shopping for integrated care (primary, specialty, and hospital).
- Physicians have goals related to quality, access, and service.
- Physicians are salaried and receive bonuses if facility and individual physicians achieve specific specific goals.

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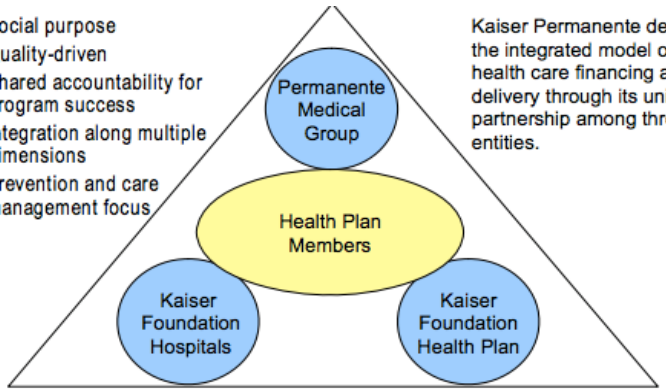
Kaiser's Operating Model

Kaiser owns some of their hospitals and all of their clinics and their medical groups directly employs physicians.

- Social purpose
- Quality-driven
- Shared accountability for program success
- Integration along multiple dimensions
- Prevention and care management focus



Kaiser Permanente defines the integrated model of health care financing and delivery through its unique partnership among three entities.

KAISER PERMANENTE

Source: Porter, M. *An Overview of Kaiser Permanente. Integration and Information Systems in Health* Care. Kaiser Permanente, 2014.

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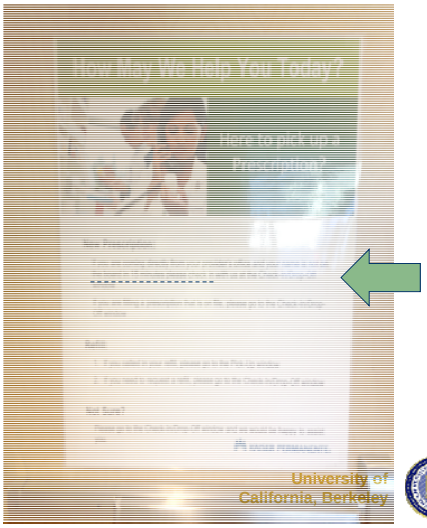
Examples of Kaiser



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Overview of Kaiser

- More than 9.3 million members
- More than 17,000 physicians and 174,000 employees (including 48,000 nurses)
- 38 hospitals (co-located with medical offices)
- 608 medical offices and other outpatient facilities
- 70 years of providing care (opened in 1945)

Source: Porter, M. *An Overview of Kaiser Permanente. Integration and Information Systems in Health* Care. Kaiser Permanente, 2014.

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Kaiser's Quality and Costs

- Ranked highest in member satisfaction (J.D. Power and Associates, 2014).
- All Medicare plans are above 97th percentile and received 5 stars (out of 5) based on 55 measures of quality and service.
- Kaiser plans are 17% more cost-effective than competing plans in their service areas (2014 Hewitt Health Value Initiative).

Source: Porter, M. *An Overview of Kaiser Permanente. Integration and Information Systems in Health Car.e* Kaiser Permanente, 2014.

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Accountable Care Organizations

- Entities that accept accountability for the cost and quality of care provided to a defined population of potential patients.
- ACOs:
  - Coordinate and integrate inpatient and outpatient care.
  - Help avoid duplication and mitigate costs.
  - Share savings among the participating providers.

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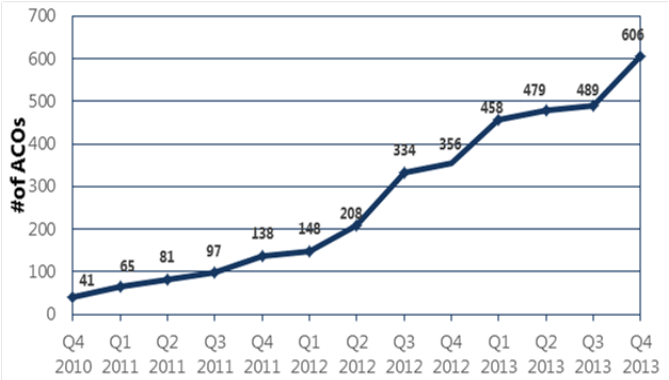
U.S. Growth of ACOs

The number of ACOs in the United States grew from 41 in late 2010 to 606 by the end of 2013. The total number of ACO-covered lives is about 20.5 million.



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Source: Leavitt Partners for Accountable Care Intelligence

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Factors Associated with Success

- Size and scale of operations,
- Care management capabilities,
- Electronic health record functionality,
- Effective partnerships,
- Patient and family engagement, and
- Measurement standardization and transparency.

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UK Models Replicating ACO's

- Better Care Fund
- Integrated Pioneer Programme
- Clinical Commissions Groups

Source: Shortell S., Addicott R., Walsh N., Ham C. Accountable Care in England and the United States: Challenges, Emerging Evidence and Evolving Lessons. BMJ, 2014.

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ALZIRA MODEL: HISTORY

1997 Contract

Tender

- To construct a hospital.
- Manage both clinical and non-clinical services in the hospital.
- Per capita yearly payment

- Only one bid by Ribera Salud Unión Técnica de Empresas (RSUTE)

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ALZIRA MODEL: HISTORY

THE 2003 CONTRACT (ALZIRA MODEL II: 2003–2018)

- Primary as well as specialist/hospital healthcare:
  - 245,000 inhabitants.
  - 30 health centres.
  - two outpatient clinics.
  - the original hospital.
- Capitation fee.
- Annual increase no longer linked to the CPI but to the percentage yearly increase in the Valencian health budget.

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Impact of integrating primary and hospital care

Núria Mas
Miguel Figallo
Jed Friedman

- Can integrated care improve efficiency and also health outcomes?
- We use data from La Ribera looking at the outcomes before and after primary and hospital care were integrated in 2003
- Our preliminary results show that integration had impact in both efficiency and quality measures

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Efficiency Indicator: ER usage efficiency

(via re-directing non-emergency care)

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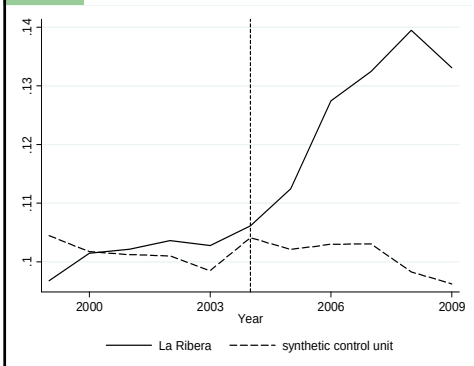
Miguel Figallo
Jed Friedman



Variables	La Ribera		Average of 19 control catchment areas
	Real	Synthetic	
Efficiency indicator	0.101	0.101	0.132
Catchment population	236987	232046	213023
Share of population above 65 years old	0.172	0.170	0.172
Beds	263.8	498.0	454.5
Technology Complexity	5.600	5.412	2.956

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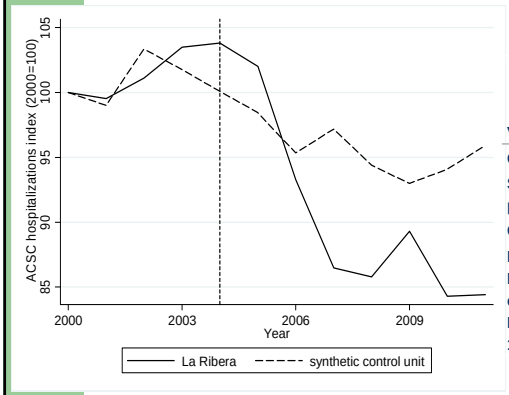
Quality Indicator: Changes on avoidable hospitalizations



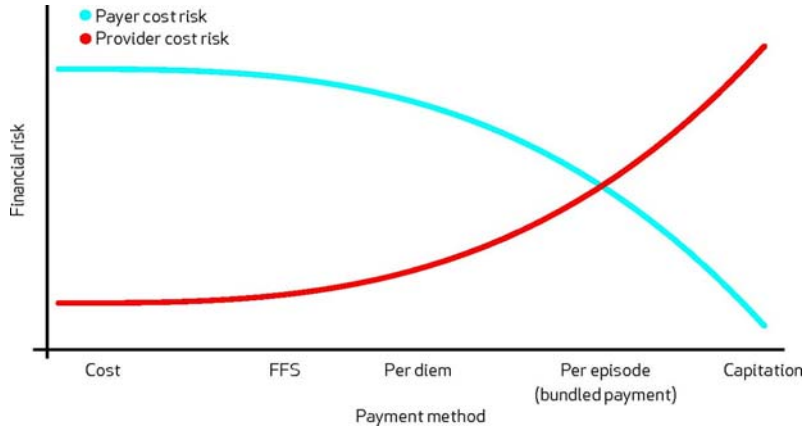
Variables	La Ribera		Average of 52 control provinces
	Real	Synthetic	
Quality indicator	101.0	101.0	101.0
Share of rural population	0.063	0.062	0.063
GDP per capita	16309	16382	16309
Expenditures in Public Health (per capita)	789.4	790.2	789.4
Primary doctors per 1000	0.603	0.674	0.603

3. New Payment Methods

- Fee-for-Service
- Per Diem
- Bundled Payments
- Capitation
- Pay-for-Performance

Risk Shifting

Financial Risk of Care for Provider and Payer, by Payment Method



Source: Frakt, AB., & Mayes R. (2012). Beyond capitation: how new payment experiments seek to find the 'sweet spot'in amount of risk providers and payers bear. *Health Affairs*, *31*(9), 1951-1958.

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Fee for Service

- **Fee-for-service** reimburses providers for the provision of individual services.
- The financial risk sits primarily with the payer.

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Per Diem Payments

- Pay a provider a set amount per patient for each day the patient is in the provider's care.
- The financial risk remains mostly on the payer.
  - For example, a patient arrives at a hospital with a fractured leg. The hospital estimates the cost of fixing a fractured leg is $1,000 and the average stay is usually 5 days. Therefore, the hospital will charge $200 per diem to the insurance provider. If the patient leaves a day early, the hospital will charge the insurance provider only $800.

Bundled Payments

- Bases payments on episodes of care. If the providers administer care at a lower cost, they share the surplus.
- This method shifts the risk onto the providers.

Bundled Payments

Service	Fee-for-Service Cost	Bundled Payment
Hospital Admission	$4,000	
Chemotherapy	$12,000	Combined total based on 90% of FFS-based costs.
Physician Fees	$5,000	
Follow-up Care	$1,000	
Total Cost	**$22,000**	**$19,800**

Goal is to provide care at or under $19,800. If under $19,800, providers and payers will share savings.

If under cost goal by 10%, provider receives 5% of savings and payer receives 5% of savings.

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Capitation

- Provider receives a fixed payment per member per month.
- The provider is at high financial risk.
  - For example, a doctor is paid $20 per member per month, regardless how often the member visits the doctor. The amount does not change if the member comes in zero times or five times.

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Pay-for-Performance

- Provides reimbursements based on both service and quality.
  - Attempts to redistribute risk with the aim of improving efficiency and quality of care. This system can give providers more financial incentives without added risk.
  - For example, physicians may receive a bonus if the meet or exceed agreed-upon quality or performance indicators. Conversely, the physician does not receive the bonus if the indicators are not met.

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General Framework for P4P Programs

Measures	Basis for Reward	Reward

• **Quality**
  • Structure: *technology, facilities, and equipment*
  • Process: *vaccination rates, cancer screening, disease management, treatment guidelines*
  • Outcomes: *chronic care measures, patient satisfaction*
• **Efficiency**
  • Cost savings or productivity improvements
	• Absolute level of measure: target or continuum
	• Change in measure
	• Relative ranking
	• → *Controls for case mix differences*
		• Financial: bonus payment
		• Non-financial: publicize measures and ranking

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Source: Scheffler R.M. "Pay for Performance (P4P) Programs in Health Services: What is the Evidence? World Health Report (2010) Background Paper, 31. (2010)

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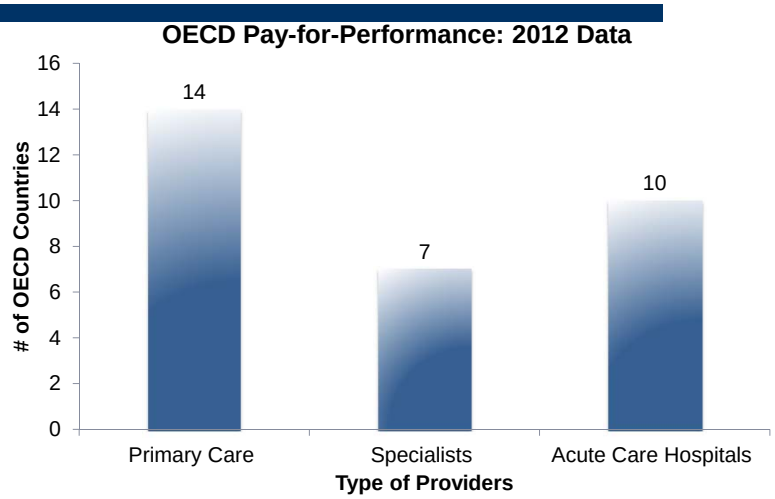
OECD P4P Survey Results



Source: 2012 OECD Health Committee Survey on Health System Characteristics (excluding Estonia and Turkey)

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P4P in OECD

- Number of countries that had bonuses for:
  - Primary care physicians (15 / 34)
  - Specialists (10 / 34)
  - Hospitals (7 / 34)
- Most bonuses paid for quality of care targets, such as:
  - Preventive care
  - Management of chronic diseases

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What are the components of doctors' salaries and their relationship with P4P?

- La Ribera as a case of study
- Information on salary and its distribution:
  - Doctor level data (around 600 each year)
  - Time span 2005-2013
  - Cohort data
  - Includes doctor characteristics (gender, age), proportion of worked days (FTE), fix salary, on-call payments, professional career bonus and P4P.
- Goals:
  - Describe how salaries have changed over time
  - Evaluate impact of P4P on doctors' salaries

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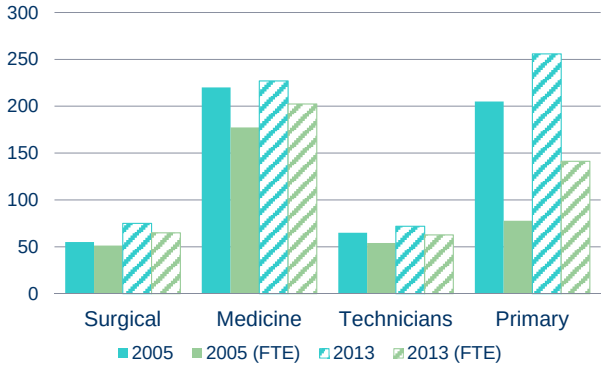
Number of Doctors in 2005 and 2013, by Specialty group



Surgical: Anesthesia, Cardiac surgery, General Surgery, Maxillofacial surgery, Plastic Surgery, Thoracic Surgery, Vascular surgery, Neurosurgery
Medicine: Alergologia, Cardiology, dermatology, Dialysis, Endocrinology, endoscopies, Gynecology, Internal Medicine, Neumologia, Neurology, Odontoestomatolgy, ophthalmology, Oncology, ENT, Pediatrics, Neonatal, Mental Health, Rehabilitation, Rheumatology, traumatology, ER, Urologia, ICU
Technicians: Biological Diagnosis Area pharmacy, Nuclear Medicine, neurophysiology, Radiophysics, Radiology, radiotherapy
Primary: Homecare, Preventive Medicine, Pr. Family orientation office, Pr. Family Medicine, Pr. Continuous healthcare centers, Pr. Pediatrics, Pr. Rehabilitation, Pr. Integrated Health Centers, Pr. Mental Health

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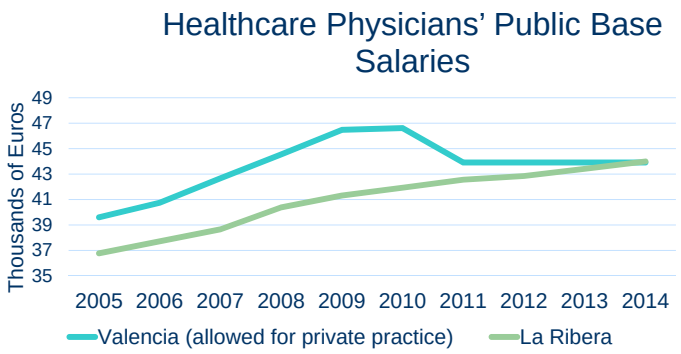
Salaries: La Ribera vs. Valencia region



Source: Tablas Retributivas de la Generalitat de la Comunidad Valenciana. Management Agreements from La Ribera

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Salary components in La Ribera

- Fix: Base salary
- On-call: As part of the agreement, doctors are on-call a number of hours per year. This is paid aside from the fix salary.
- Professional Career: Individual evaluation and Seniority
- P4P: Payment regarding accomplishment and activity (further details ahead)
- Other: payment in kind, travel expenditures, etc.

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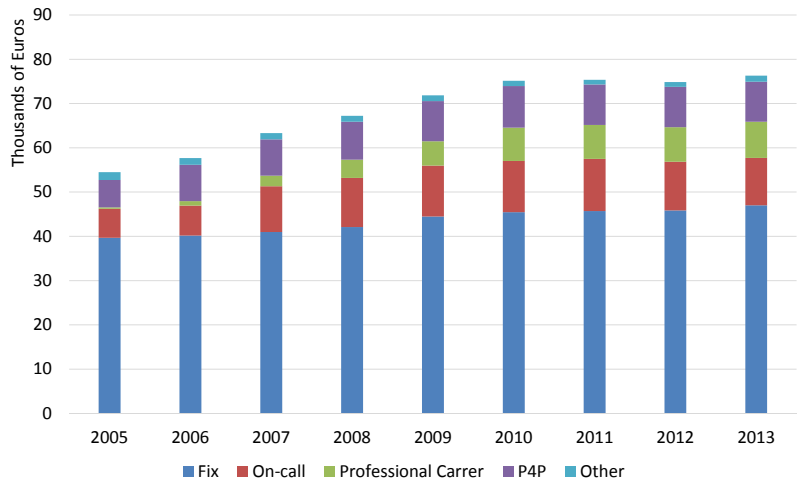
Average FTE Salary per Year



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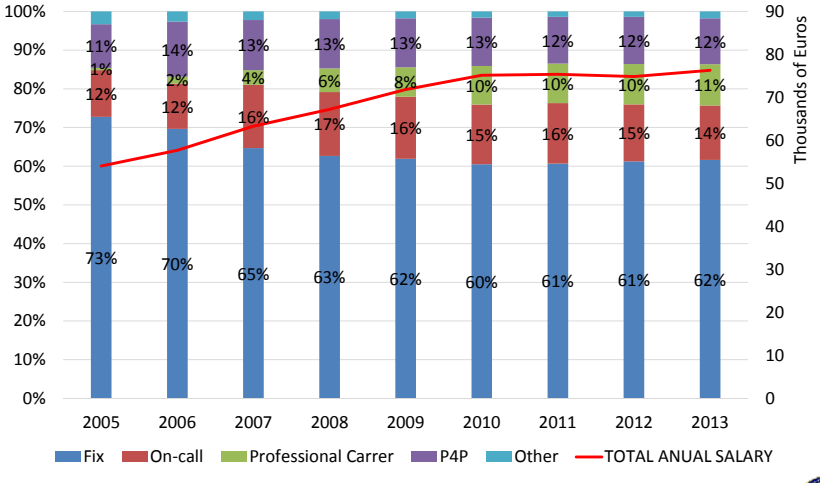
Average FTE Salary Structure per Year



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Setting P4P

Average group score

- Introduced in 2001
- Set of benchamrks per each specialty
- Benchmarks correlated within large specialty groups
- Each benchmark has a weight
- Achievements measured every quarter
- Economic benchmarks since 2011
- Total score goes from 0 to 100%

$$AS_j \times ID_{ij}$$

Individual activity measure

- Since the beginning
- Differs across specialties (j) and individuals (i)
- Since 2004 activity is measured by worked time in every specialty group but surgical
- Surgeons activity depend on fees per DRG

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Example 1 – Internal Medicine

Clinical Incentives		Value %
	Average Stay	15
	Delays in Outpatient Clinic	15
	Coding according ICD (International Classification of Diseases)	15
	Treatment of Hip fracture < 48 h	15
	% of discharges in outpatient	15
Economic Incentives		
	Adjustment to budget of turnover	10
	Pharmaceutical cost of external patients	15
Total		100

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Example 2 – Orthopedic Surgery and Traumatology

Clinical Incentives		Value %
	LEQ<90 = 0	15
	Average delay in Surgery	10
	% Major Outpatient Surgery	10
	Time of entrance of first patient in the operating room	10
	Average Stay	10
	Delays in Outpatient Clinic	10
	Index of subsequent/first treatment in the outpatient	10
Economic Incentives		
	Adjustment to budget of turnover	15
	Adjustment to average cost in operating room	10
Total		100

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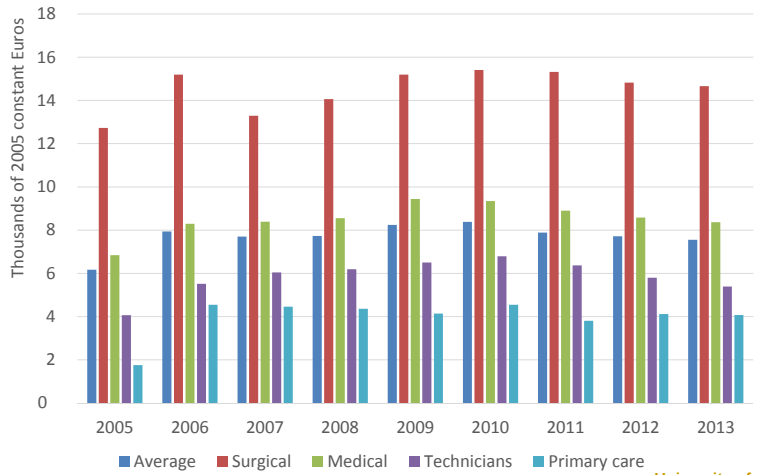
P4P over time in 2005 constant Euros



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Overall P4P Results and Findings

- P4P programs have been used in several OECD countries.
- The impact of P4P schemes is often limited because the size of the incentives are small.
- Paying for quality will require better methods of measuring quality of care.

Key Opportunities and Challenges

- Spain has a long life expectancy.
- However, it also has a dramatically aging population and a forecast of flat healthcare expenditures.
- Spain should consider the global movement towards integrated care delivery system.

Key Solutions

- Develop, expand, and test integrated healthcare delivery systems.
  - Basque Chronicity Strategy
  - Alzira
  - Other examples?
- Develop bundled payments and expand pay-for-performance.
- Expand the supply and effective utilization of nurses.

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Discussion

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Additional Sources

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2. Scheffler, R.M. “The Global Shortage of Health Workers and Pay for Performance.” The 4th International Jerusalem Conference on Health Policy Public Accountability: Governance And Stewardship (September 2010): 73-81.
3. Fulton BD, Scheffler RM, “Health Care Professional Shortages and Skill-Mix Options Using Community Health Workers: New Estimates for 2015,” The Performance of National Health Workforce Conference, sponsored by World Health Organization, Neuchatel, Switzerland, October 2009.
4. National Survey of Accountable Care Organizations. Dartmouth-Berkeley. October 2012-May 2013.
5. Evans, M, Zigmond, J. “Complex Coordination.” *Modern Healthcare Magazine*. July 22, 2013.
6. Feachem RG, Sekhri NK, White KL.Getting more for their dollar: acomparison of the NHS with California’sKaiser Permanente. British Medical Journal 2002;324:135–41.

Supplemental Slides

4. Health Workforce Strategies

- Practicing Doctors and Nurses
- Remuneration of Doctors and Nurses

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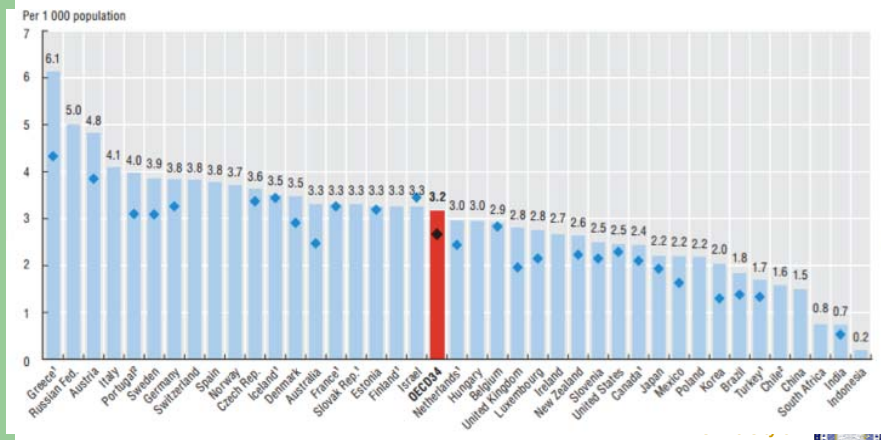
Practicing Doctors

Spain had 3.8 doctors per 1,000 people, above the OECD average of 3.2.



Source: OECD *Health Statistics,* 2013.

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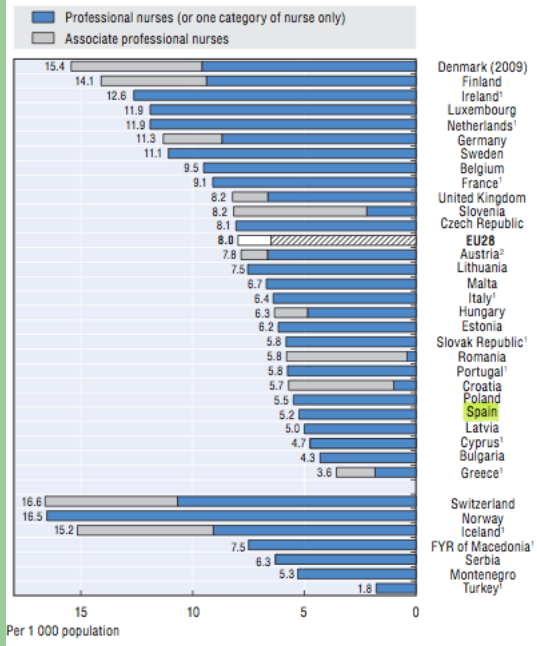


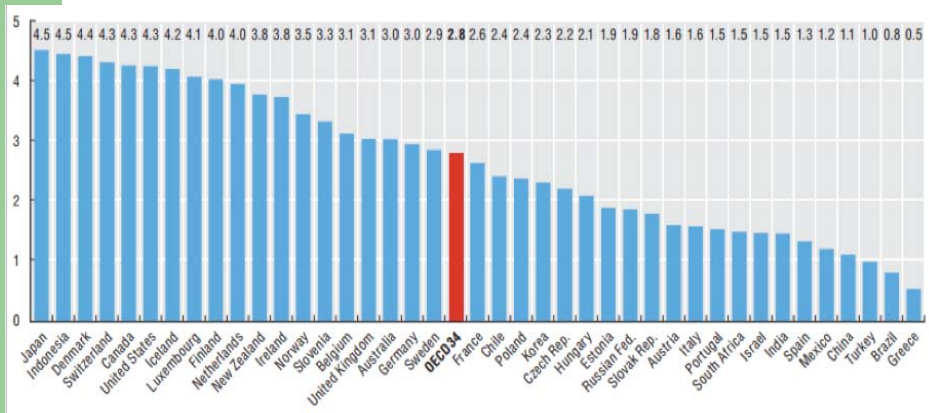
Nurses

Spain has 5.2 nurses per 1,000 people, compared to the EU average of 8.0.

Source: OECD *Health Statistics*, 2014

Ratio of Nurses to Doctors

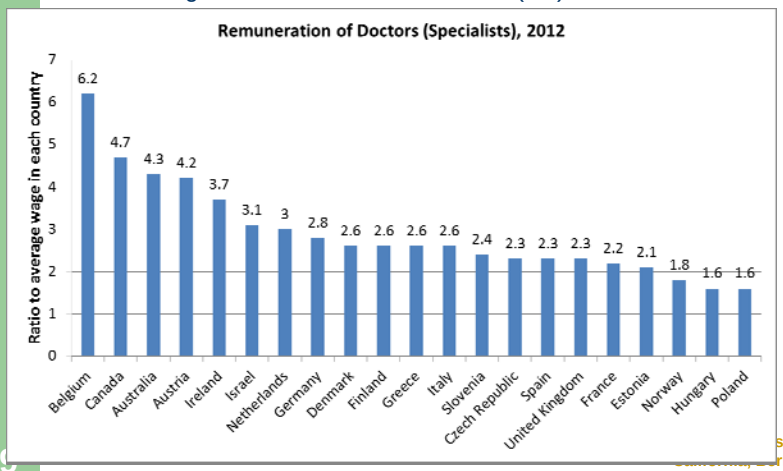
In 2011, Spain had 1.2 nurses for every physician, below the OECD average of 2.8.



Source: OECD *Health Statistics,* 2013.

Remuneration of Doctors

Spain's remuneration of specialist doctors is 2.3 times its average wage, below average for the listed OECD nations (2.9).



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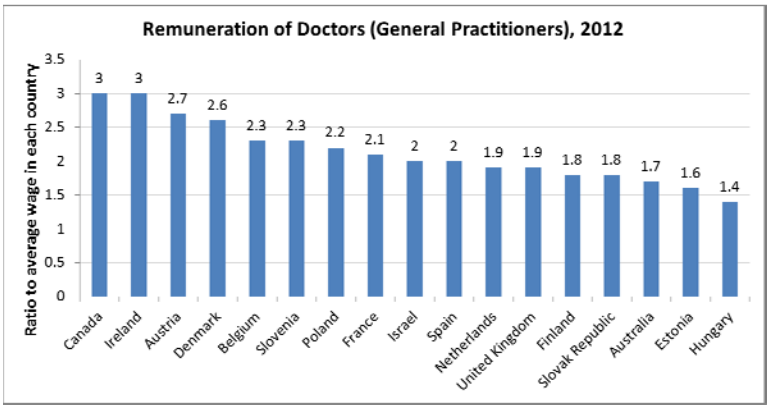
Source: OECD, 2011, *Remuneration of Doctors and Nurses: Progress and Next Steps*

Remuneration of Doctors

Spain's remuneration of general practitioners is 2 times its average wage, below average for the listed OECD nations (2.1).



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Source: OECD, 2011, *Remuneration of Doctors and Nurses: Progress and Next Steps*

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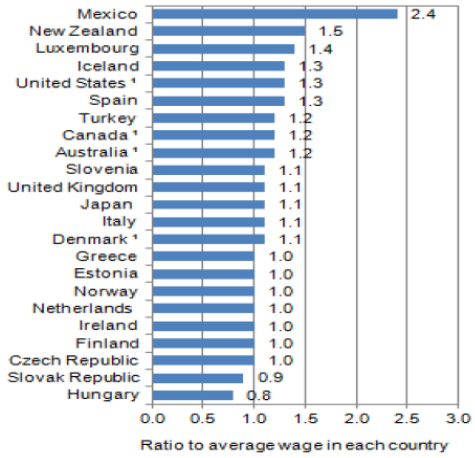
Remuneration of Hospital Nurses: Ratio to Average Wage, 2009

On average, nurses in Spain are paid 1.3 times more than the average wage – a high ratio compared to other OECD nations.



Source: OECD, 2011, *Remuneration of Doctors and Nurses: Progress and Next Steps*

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Spain's Healthcare Workforce

- Spain relies on physicians rather than nurses for healthcare services.
- Spain has fewer nurses than most other EU nations.
- Physicians have a relatively low wages compared to OECD average wages.
- Nurses have relatively high wages compared to OECD average wages.

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Rate of Cocaine Use

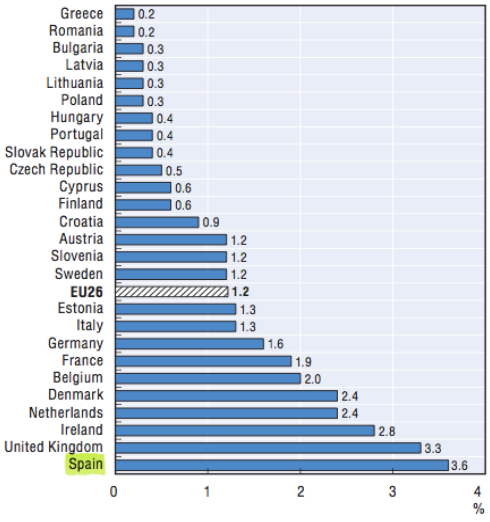
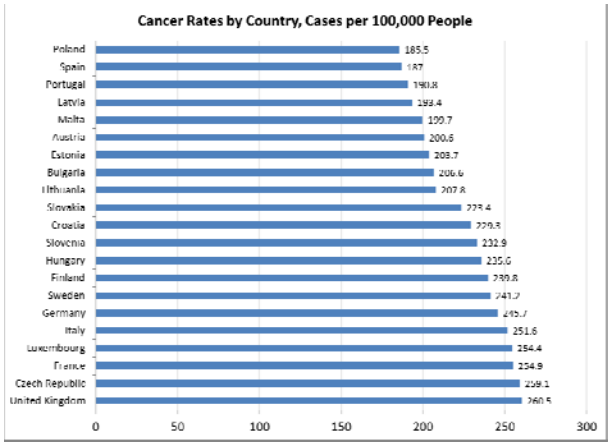


Figure 2: Rate of cocaine use over the last 12 months among people aged 15 to 34, 2013.

Source: European Monitoring Center for Drugs and Drug Addiction, European Drug Report 2014

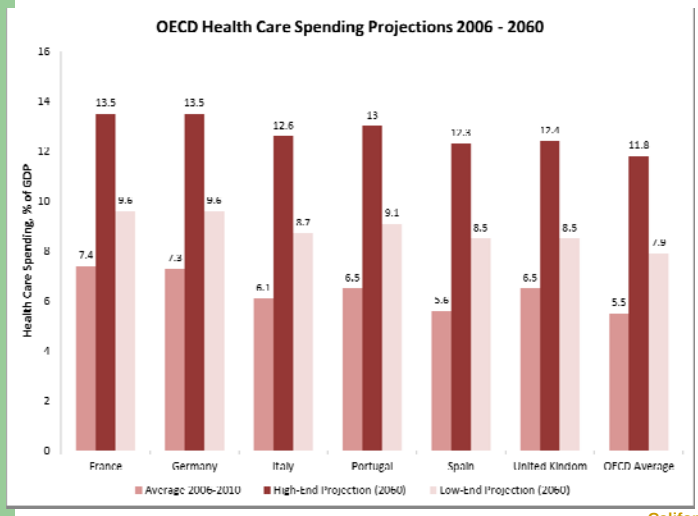
Cancer: EU and Spain

Spain has a rate of 187 total cancer cases per 100,000 people



Source: World Cancer Research Foundation

Health Care Expenditures Forecast



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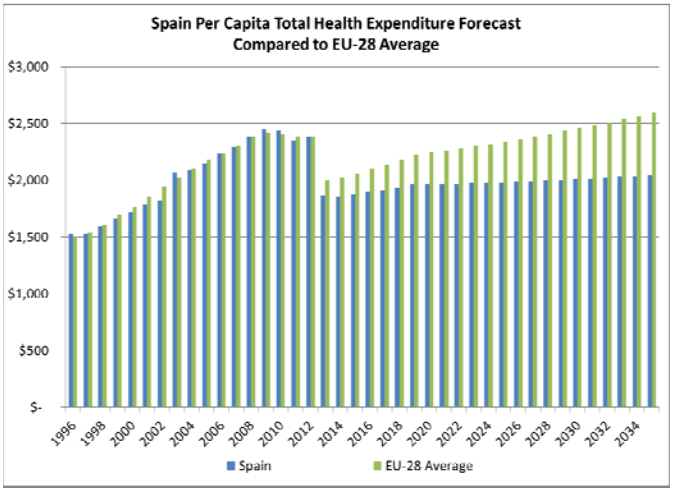
Source: OECD, 2013, *Public spending on health and long-term care: a new set of projections.*

Health Expenditures Forecast



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Unofficial and confidential estimates.

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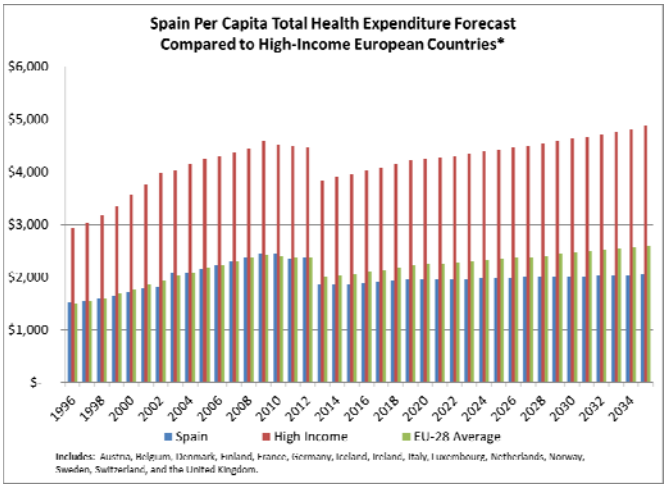
Health Expenditures Forecast



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Unofficial and confidential estimates.

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P4P Limitations

- Measures of quality of care are difficulty to assess because quality is multidimensional.
- Quality includes clinical effectiveness, but also patient experience.
- Outcomes are also difficult to measure, particularly for individuals, and often do not appear for a long time.
- Given these constraints, paying for quality will continue to require better methods of measuring quality of care.

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P4P Common Measure Set

2012 P4P Common Measure Set	Number of Measures	Weighting
Clinical Domain		
Prevention	7	50%
Cardiovascular	5	
Diabetes	10	
Maternity	0	
Musculoskeletal	1	
Respiratory	4	
Meaningful Use of Health Information Technology Domain	22	30%
Patient Experience Domain	8	20%
Appropriate Resource Use Domain	21	Shared savings
Total	**78**	**100%**

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Source: Integrated Healthcare Association. *Measure Set Strategy: 2012-2015.*

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Integration: Alzira Model

Hospital de la Ribera opened in 1999 in Alzira health district, Valencia region

- Contracted with consortium (UTE) led by a private insurer (Adeslas) to build and run a hospital
- Highly integrated delivery system
- Focuses on primary care and avoiding unnecessary hospital admissions
- Relies heavily on nurses to manage care

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Alzira Model Results

- Compared to other hospitals in Valencia region, La Ribera has:
  - Shorter delays for consults, surgeries, other services
  - Lower 3-day readmission rates
  - Shorter average hospital stay
- Patient satisfaction is 9.1 out of 10
- Due to success, model is being tested elsewhere
- Still a need for further study
  - Independent evaluation to be conducted by UC Berkeley; IESE Business School; Universidad Carlos III, Madrid

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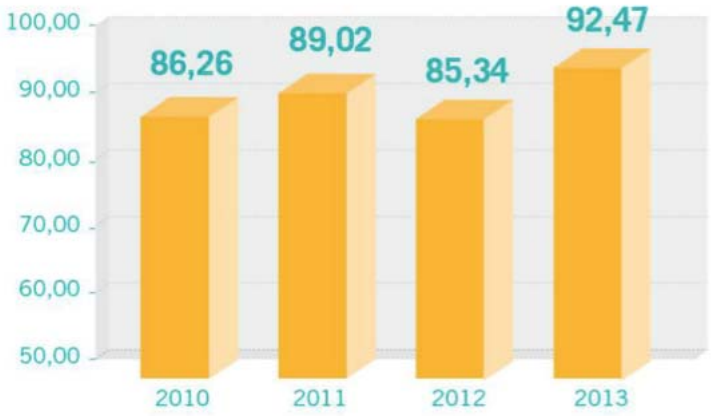
La Ribera Patient Satisfaction

Percent of patients surveyed that responded “very satisfied” and “satisfied”



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Alzira Model Success and Replication

- Gross total health expenditure of La Ribera from 2004 - 2012 was **31.8% lower** than the per capita expenditure of the departments of direct public management.
- The Alzira Model has been adopted by the following:
  - Torrevieja,
  - Denia Marina Salud,
  - Manises, and
  - Vinalopo

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Basque Chronicity Strategy

Challenges:

1. Population Aging
2. Chronic Illness prevalence
3. Increased healthcare expenditures
4. Declining tax revenue

Key Healthcare Objectives:

1. Focus on stratified population
2. Increase prevention
3. Transfer autonomy to patients
4. Continuity of care
5. Innovation

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Basque Chronicity Strategy

- Key results:
  - Medical DRG's admissions have reduced and surgical DRG's stabilized.
  - This is a result of an encompassing Chronic Care transformation Strategy that includes the multi channel health services.
  - This has lead to cost savings in Acute hospitals but also shifted work to less cost health services like chronic hospitals, home or ambulatory care

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Basque Chronicity Strategy

- External research from UK NHS confirm these findings:

– Other external research report 15% reduction in face-to-face visits

– 20% reduction in emergency admissions

– 14% reduction in elective admissions

– 14% reduction in bed days

– 8%reduction in tariff costs.

– 45% reduction in mortality rates

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Source: UK Department of Health 2011, Bower, P., et al.- BMC Health Services Research 2011

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Healthcare Performance

Hospital Average Length of Stay for All Causes (Number of Days)

- France: 5.6
- Portugal: 5.9
- **Spain: 6.7**
- United Kingdom: 7.0
- OECD Average: 7.6
- Italy: 7.7
- Germany: 9.2

Source: OECD Stat Extracts

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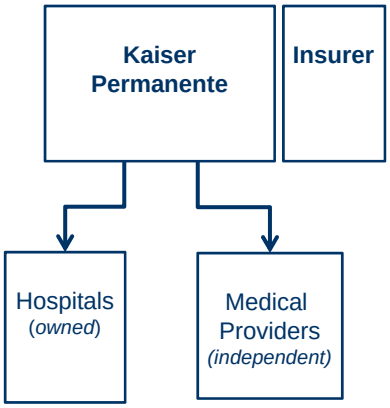
Kaiser's Operating Model



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