Towards Value-based Healthcare

Yolima Cossio-Gil MD MPH
Associate Director  Evaluation & Data Management
Vall d’Hebron University Hospital
Barcelona
What is Value in Health care?
It's a fan!

It's a wall!

It's a rope!

It's a snake!

It's a tree!
Important
Worth
Useful
Significant
VALUE
Central goal:

Value for the patient
Value-based Healthcare (VBHC)

Outcomes that matter to patients

VALUE = Cost of delivering the outcomes

How to measure Value?
How to implement VBHC?
Components of the Value-agenda

1. Organize into integrated practice units (IPUs)
2. Measure outcomes and costs for every patient
3. Move to bundled payments for care cycles
4. Integrate care delivery across separate facilities
5. Expand excellent services across geography
6. Build an enabling information technology platform

Improve health outcomes

It requires holistic perspective on system set-up
All stakeholders play a role

- Providers
- Patients
- Supplier
- Payers
- Regulators
Case Study Catalunya
Health Care System in Catalonia

- National Health System
- Universal coverage. Funded by Taxes
- Spending 9.1% of Catalan GDP
- Multi-provider system
- Payment system mainly
  - Primary Care Capita
  - Hospital Discharge + complexity
Organize care around a single medical condition

Welcome to Vall d’Hebron Barcelona Hospital Campus
Provider:
The largest and most complex University Hospital

- 9,000 professionals
- 450,000 reference population
- 1,100 beds
- 58,000 discharges/year
- 42,000 surgical Interventions/year
- 22 buildings
- 47 training specialities
- 531 residents
- 80 research groups
- 900 clinical trials
**Key components of VBHC**

**Integrate Practices**

- Organize around medical conditions and target population
- Better coordinate, avoid silos and lack of accountability in organization
- Increase expertise of the care teams
**Key components of VBHC**

**Measure Outcomes**

- Identify outcomes that matter to patients
- Make data trustworthy
- Track and share results
- Empower
- Learn and Identify best practices
- Improve
How to Choose the Outcomes?

Ask the patients

Ask the clinical team
Outcomes that matter to the patient

- Survival and Disease control
- Disutility of Care
- Quality of Life

Patient Reported Outcomes (PROMs)

Patient Reported Experience (PREMs)
Engage patients

✓ Make it easy
  • Length
  • Collecting form
  • Time

✓ Make it relevant
  • Part of the care
  • Recommended by the staff
  • Use responses in real time to care for the patient
Choosing the measurement tool

International Consortium for Health Outcomes Measurement (ICHOM): Validated questionnaires and Standardized set

http://www.ichom.org
Engage clinicians

- Reduce administrative burden
- Make it easy to interpret
- Provide comparison
- Incorporate the EHR in real time

Example from: ICHOM. What matters most

But his urinary function has improved to “good”.

Quality of Life Score
Engage the team

✓ Feedback to the team
  • Ensure quality of data
  • Risk-adjusted reports

✓ Compare and Benchmarking
✓ Act on data

Health status achieved
Process of recovery
Sustainability of health
Disease Control
Quality of Life
Productivity

PATIENT VALUE

Coordinated Care Pathways
Avoid complications and
non value activities
Increase innovation
✓ Supplier
✓ Payers
✓ Regulators

- 46 million primary care visits per year
- 760,000 hospital discharges per year
- 60 million electronic health record documents
- 100,000 convalescence discharges per year
- 2.7 million visits to emergency units
- 140 million electronic prescriptions per year

- 68 Hospitals
- 369 Primary care teams
- 49 Mental health centers
- 72 Convalescence centers
Risk-sharing arrangements

✓ Schemes of Payments per Results
  (EPR: *Esquema de Pagament basat en Resultats*)
✓ Efficacy, Safety
✓ Quality of life of patients
Changing the procurement model

- Price-based procurement
- No collaboration Hospital-supplier
- In-office visits
- Payment for devices provided
- Value-based procurement
- Risk-sharing approach
- Remote monitoring
- New health-outcomes criteria included for payment system

Innovation in purchase:
Value-Based Procurement
# Applying the VBHC framework to Hospital Agreement

## STEPS TO VALUE-BASED HEALTHCARE

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELECT A DISEASE OR CONDITION</td>
<td>DEVELOP PATIENT COHORTS BASED ON RISK AND PROTOCOLS</td>
<td>DEFINE OUTCOME MEASURES THAT ARE MEANINGFUL FOR PATIENTS</td>
<td>DEFINE TIMEFRAME REQURED TO ACHIEVE OPTIMAL OUTCOME</td>
<td>QUANTIFY BASELINE OUTCOMES AND COSTS FOR EACH PATIENT COHORT</td>
<td>DETERMINE PROSPECTIVE PERFORMANCE AND COST OBJECTIVES – THE VALUE PROPOSITION</td>
<td>DEVELOP BUSINESS MODEL</td>
</tr>
</tbody>
</table>

### CARDIAC ARRHYTHMIAS AND HEART FAILURE.

#### PATIENTS IMPLANTED WITH ICDs AND CRTs.

#### CLINICAL OUTCOMES
- (inappropriate shocks reduction, % AF detected),
- FUNCTIONAL OUTCOMES (in-office visits reduction) & PATIENT REPORTED OUTCOMES (RM adherence).

#### AN ASSESSMENT WILL BE DONE ON A YEARLY BASIS, COMPARING THESE OUTCOMES AGAINST THE BASELINE DATA.
- (Baseline information was collected during one-year experience)

#### COST ANALYSIS BASED ON PREVIOUS YEARS’ ACTIVITY.
- Baseline info hospital collaboration agreement for proof of concept:
  - Remote Monitoring Center.
  - Outcomes analysis based on Pilot Experience

#### EQUAL OR LESS COST WITH BETTER SERVICE AND ALIGNED OBJECTIVES.
- Brand agnostic Remote Monitoring Service Center for device follow up for all ICD/CRT patient population.
- Unified information in one system for every device manufacturer.

#### RISK SHARING BUSINESS MODEL CONSIDERING A FIX COST FOR INTEGRAL MANAGEMENT OF ALL PATIENTS TREATED.

#### BUNDLE PAYMENT INCLUDING SERVICES AND SUPPLIES.
- Same price during the life of the contract (4 years).
- If the hospital activity increases beyond than 10%, the contract will be expanded accordingly.
From the hospital:

- barriers from the Tender’s department. “change? why?”
- Reducing the prices even more than last year?
- Fears regarding legal issues

From the industry:

- HARD resistance. Not willing to be involved in follow-up and complications of their devices
- HARD resistance to collaborate between different providers
- The whole industry fought against the Hospital tender
Lessons learned (I)

Procuring entities

• Co-creation process requiring a Cultural Change.
• Top-down engagement
• Provider – Procurer interaction
• Multidimensional procurement Team
• Functional analysis of Needs
• Develop outcome-based service specifications: identification of key performance indicators (KPIs) for innovative service is difficult
• Evaluating impact requires a long term plan with assessment at different stages:
  • *Ex-ante (previous)*
  • *During deployment (pay on results)*
  • *Post (after implementation)*

• New schemes of payment
Lessons learned (II)

Companies

• In all cases the lead customer had an active interest in new solutions to solve immediate or long term problems
• From selling products to provide solutions
• Provider – Procurer interaction
• Build and coordinate a strong consortia is key
• New schemes of payment
AQuAS – Key Experience & Strengths – Some PCP, PPI and Value-Based projects

Knowledge sharing

Next generation Sequencing
+ 19 New PPI (Catalan Ministry of Health call)

Sexually Transmitted Diseases (STDs)

Pediatric Diabetes

Dialysis treatment

TAVIs

Digital pathology

Clinical Decision Support System

Intensive Care Unit

Anti-SUPERBUGS

3D Implants

Blood Donor Track System

Adults diapers

Cervical Cancer Pharmacogenetics markers

Ear Plug Cleaning Device

Mental Health Pharmacogenetics markers

Needs Assessment & Open Technical Dialogue & Business Case Modelling

ITT definition - Legal

ITT Issued

Bids Assessment

Design & Prototyping

Evaluation

Definition

Execution

Generalitat de Catalunya

Departament de Salut

Agència de Qualitat i Avaluació Sanitàries de Catalunya

20 anys
### Central de Resultats

<table>
<thead>
<tr>
<th>Dades generals</th>
<th>Satisfacció de les persones usuàries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequació</td>
<td>Efectivitat</td>
</tr>
<tr>
<td>Seguretat</td>
<td>Eficiència</td>
</tr>
<tr>
<td>Dades econòmiques</td>
<td></td>
</tr>
</tbody>
</table>


**[Transparency in public health decision-making].**

[Article in Spanish]
García-Altés A¹, Argimon JM².

**Author information**

**Abstract**
Improving the quality and transparency of governmental healthcare decision-making has an impact on the health of the population through policies, organisational management and clinical practice. Moreover, the comparison between healthcare centres and the transparent feedback of results to professionals and to the wider public contribute directly to improved results. The "Results Centre" of the Catalan healthcare system measures and disseminates the results achieved by the different healthcare centres in order to facilitate a shared decision-making process, thereby enhancing the quality of healthcare provided to the population of Catalonia (Spain). This is a pioneering initiative in Spain and is aligned with the most advanced countries in terms of policies of transparency and accountability.
The European University Hospital Alliance (EUHA)
Learning In ValuE (LIVE)

Blueprint for Implementing Value Driven Health Care in hospitals

Learning In ValuE working group

Components

Care pathways (IPU)
- Outcomes set
- Information platform

Provider’s coordination
- Bundle payments/value-purchasing

Preparation
CST
- Ensure leadership and multidisciplinary team
- Create IPU culture
- Train and provide tools
- Evaluate baseline situation
- Include surveys of culture of care

Design
CST+ clinical team
- Map ideal pathway
- Co-design pathway and outcome with patients and team
- Select actions for improving the pathway
- Use standardized tools for outcome set

Building
IT + clinical team
- Promote digital collection of data
- Integrate into EMR in real time
- Facilitate dashboard for outcomes and lever indicators
- Start actions for ideal pathway

Implementation
Clinical team
- Communicate start date
- Start and follow implementation: adherence to the questionnaires and to new standard of work
- Periodically make PDCA cycles

Evaluation & Improvement
- Make PDCA with team and patients
- Communicate results
- Follow up outcomes, level indicators, costs and culture of care
- Compare results to learn, innovate and research best practices

For the whole organization

Institutional Strategy
- Align board members
- Map situation and gaps
- Establish Strategic and Communication plans
- Create a Central support team (CST)
- Prioritize the clinical conditions/pathways
- Follow up and evaluate
- Advocate for VBHC

Phases

Enablers

Organisational engagement & governance
- Professionals: leadership & engagement
- Patient engagement

Health informatics & Data as facilitator
- Training, Research & Innovation

Communication, Evaluation and Change management

Platform for Innovation of Procurement and Measurement of Innovation

CC BY NC ND
If the patient wins, we all win!

Facilities staff
Caregivers
Patients
Health Educators
Pharmaceutical Suppliers
Providers
Payers
Policymakers
Government

Thanks
ycossio@vhebron.net
@yolimacossio