Value-Based Health Care Delivery: Implications for Singapore

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Incremental “Solutions” Have Limited Impact

- Evidence-based medicine
- Electronic medical records
- Safety/eliminating errors
- Introducing “lean” process improvements
- Care coordinators
- Programs to address generic high cost areas (e.g. readmissions)
- Telemedicine consults

- **Restructuring health care delivery** will be necessary, not incremental improvements
Solving the Health Care Problem

• The **fundamental goal** of health care is maximizing **value for patients**

\[
\text{Value} = \frac{\text{Health outcomes that matter to patients}}{\text{Costs of delivering the outcomes}}
\]

• Moving from **volume** to **value** is the **only real solution**, and can unite the interests of all system participants

• The question is how to design a health care delivery system that **substantially improves patient value**
Principles of Value Based Health Care Delivery

• Value **cannot be understood** at the level of a hospital, a care site, a specialty, an episode, or an intervention

• Value is created in caring for a patient’s **medical condition** over the **full cycle of care**

\[
\text{Value} = \frac{\text{The set of outcomes that matter for the condition}}{\text{The total costs of delivering these outcomes over the full care cycle}}
\]

• In **primary and preventive care**, value is created in serving **segments of patients** with similar primary and preventive needs, such patients with multiple chronic conditions, frail elderly, or healthy adults

• The most powerful single lever for reducing cost is **improving outcomes**

• The medical condition / patient segment is the proper **unit of value creation** and **value measurement** in health care delivery
Creating a Value-Based Health Care Delivery Organization

The Strategic Agenda

1. Re-organize into **Integrated Practice Units (IPUs)** around **Conditions** and **Patient Segments** for Primary and Preventive care

2. Measure **Outcomes** and **Costs** for Every Patient

3. Move to Value-Based Reimbursement Models, Ultimately to **Bundled Payments** for Conditions and Primary Care Segments

4. Integrate Multi-Site Care Delivery **Systems**

5. Expand **Geographic Reach** to Drive Excellence

6. Build an Enabling **Information Technology Platform**
Organize Care Around Patient Medical Conditions
Headache Care in Germany

Traditional Model:
Organize by Specialty and Discrete Service

Value Based Model:
Organize Around Conditions into Integrated Practice Units

Defining the Medical Condition

• A medical condition is **an interrelated set of patient medical circumstances best addressed in an integrated way**
  – Defined from the patient’s perspective
  – Involving multiple specialties and services
  – Including addressing common co-occurring conditions and complications

  **Examples:** diabetes, breast cancer, knee osteoarthritis

• IPUs organized around medical conditions or **groups of related conditions** involving a similar team and care process

  **Example:** congenital heart defects, joint replacement
Organize Care Around Patient Medical Conditions
Head and Neck Center at MD Anderson

**Traditional Model:**
Organize by Specialty and Discrete Service

- Primary Care Physician
- Dentist
- Speech & Swallow
- Pathologist
- Surgical Oncologist
- Radiation Oncologist
- Radiologist
- Anesthesiologist

**Value Based Model:**
Organize into Integrated Practice Units Around Conditions

- **Shared Ancillary Services**
  - Smoking Cessation
  - Substance Abuse

- **HEAD and NECK CENTER**
  - Medical Oncologist
  - Surgical Oncologist
  - Radiation Oncologist
  - Dental Oncologist
  - Radiologist
  - Pathologist
  - Anesthesiologist
  - Nurse
  - Social Worker
  - Patient Access
  - Nutritionist
  - Patient Advocate

- **Facilities**
  - Operating Rooms
  - Chemotherapy
  - Radiation Therapy
  - Pathology Lab

- **Shared Facilities**
  - Outpatient Clinic
  - Swallowing Lab
  - Hearing Lab
  - Prosthodontic Lab

Source: Porter, Michael E., Jain, Sachin, *The University of Texas MD Anderson Cancer Center: Interdisciplinary Cancer Care*. February 26, 2013.
Organize Care Around Patient Medical Conditions
Joslin Diabetes Center, Boston

Traditional Model:
Organize by Specialty and Discrete Service

Emerging Model:
Organize into Integrated Practice Units (IPUs)

1. Check-in
2. Endocrinologist
3. Nurse Coordinator
4. Eye Exam
5. Laboratory - Blood, Urine
6. Diabetes Education
7. Mental Health
8. Renal
9. Check-out

Exhibit 12: JoslinCare™ Model
# Integrating Over The Full Cycle of Care

## Acute Knee-Osteoarthritis Requiring Replacement

### CARE DELIVERY

**INFORMING AND ENGAGING**
- Importance of exercise, weight reduction, proper nutrition
- Meaning of diagnosis
- Setting expectations
- Expectations for recovery
- Importance of rehab adherence
- Importance of exercise, maintaining healthy weight

**MEASURING**
- Joint-specific symptoms and function (e.g., WOMAC scale)
- Overall health (e.g., SF-12 scale)
- Loss of cartilage
- Baseline health status
- Blood loss
- Infections
- Joint-specific symptoms and function
- Overall health
- Weight gain or loss
- Overall health

**ACCESSING**
- PCP office
- Health club
- Physical therapy clinic
- Specialty office
- Imaging facility
- Pre-op evaluation center
- Operating room
- Recovery room
- Orthopedic floor at hospital or specialty surgery center
- Nursing facility
- Rehab facility
- Physical therapy clinic
- Home

**MONITORING/PREVENTING**
- Conduct PCP exam
- Refer to specialists, if necessary
- Prevent
- Prescribe anti-inflammatory medicines
- Recommend exercise regimen
- Set weight loss targets

**DIAGNOSING**
- Perform and evaluate MRI and x-ray
- Assess cartilage loss
- Assess bone alterations
- Review history and imaging
- Perform physical exam
- Recommend treatment plan (surgery or other options)

**PREPARING**
- Conduct home assessment
- Monitor weight loss
- Determine approach (e.g., minimally invasive)
- Insert device
- Cement joint

**INTERVENING**
- Administer anesthesia (general, epidural, or regional)
- Perform cardiology, pulmonary evaluations
- Run blood labs
- Conduct pre-op physical exam

**RECOVERING/REHABBING**
- Immediate return to OR for manipulation, if necessary
- Monitor coagulation
- Provide daily living support (showering, dressing)
- Track risk indicators (fever, swelling, other)

**MONITORING/MANAGING**
- Consult regularly with patient
- Prescribe prophylactic antibiotics when needed
- Set long-term exercise plan
- Revise joint, if necessary

### Monitors
- Orthopedic Specialist
- Other Provider Entities

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**Setting expectations**
- Importance of nutrition, weight loss, vaccinations
- Home preparation
- Post-surgery risk factors
- Longitudinal care plan

**Baseline health status**
- Fitness for surgery (e.g., ASA score)
- Operative time
- Complications
- Inpatient length of stay
- Ability to return to normal activities

**Operating room**
- Recovery room
- Orthopedic floor at hospital or specialty surgery center
- Nursing facility
- Rehab facility
- Physical therapy clinic
- Home

---

**Interpreting**
- Conduct home assessment
- Monitor weight loss
- Inpatient length of stay
- Ability to return to normal activities

**Monitoring/Managing**
- Consult regularly with patient
- Prescribe prophylactic antibiotics when needed
- Set long-term exercise plan
- Revise joint, if necessary

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**Monitoring/Preventing**
- Conduct PCP exam
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**Ongoing care**
- Conduct PCP exam
- Refer to specialists, if necessary
- Prevent
- Prescribe anti-inflammatory medicines
- Recommend exercise regimen
- Set weight loss targets

**Diagnosing**
- Perform and evaluate MRI and x-ray
- Assess cartilage loss
- Assess bone alterations
- Review history and imaging
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- Consult regularly with patient
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**Overview**
- Conduct PCP exam
- Refer to specialists, if necessary
- Prevent
- Prescribe anti-inflammatory medicines
- Recommend exercise regimen
- Set weight loss targets

**Diagnosing**
- Perform and evaluate MRI and x-ray
- Assess cartilage loss
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**Preparing**
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**Summary**
- Conduct PCP exam
- Refer to specialists, if necessary
- Prevent
- Prescribe anti-inflammatory medicines
- Recommend exercise regimen
- Set weight loss targets

**Diagnosing**
- Perform and evaluate MRI and x-ray
- Assess cartilage loss
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Segmented Primary and Preventive care for Low Income, Older Adults
Oak Street Health

- Serve **low-income older adults** living in **under-served urban communities**
  - Four severity subgroups

- **Multidisciplinary team** covering the full care cycle: physicians, PAs, NPs, RNs, medical assistants, care managers, social workers, clinical informatics specialists, and scribes

- Co-located in **dedicated facilities. 15 sites** across the Midwest

- Explicit processes to **engage** patients and reduce **obstacles to accessing** care such as **free rides/home-visits**, **in-house pharmacy** and selected **commonly needed** specialty services such as **behavioral health**, and **podiatry**

- Close relationships with **preferred outside specialists** and **testing** and **imaging** partners

- **Measure and accountable** for outcomes, cost, and patient experience

- **Meet regularly** to discuss patient care plans and process improvement

- **Single risk-adjusted payment** covering overall care
The Playbook for Integrated Practice Units (IPUs)

1. Organized around a **medical condition** or **group of closely related conditions** (or patient segments for primary care)
2. Care is delivered by a **dedicated, multidisciplinary team** devoting a significant portion of their time to the condition
   - In-house or affiliated staff
3. **Co-located** in **dedicated facilities**, with a **hub and spoke** geographic structure
4. The IPU takes responsibility for the **full cycle of care**
5. **Patient education, engagement, adherence, prevention**, and **follow-up** are integrated into care, as are tools such as telemedicine and patient measurement
6. The unit has a **single leadership, scheduling, and intake** structure, and a single **P + L**
7. A **physician team captain** or a **clinical care manager** (or both) oversees each patient’s care
8. The team **routinely measures** outcomes, costs, processes, and experience using a **common platform**
9. The team **accepts joint accountability** for outcomes and costs
10. The team **meets formally and informally** to discuss individual patient care plans and how to improve results
Coordinating Care Across IPUs
Patients with Multiple Medical Conditions

• The primary organizational structure for specialty care delivery should be around conditions (and IPUs) which integrate the care needed by every patient.

• Segmented primary care should be the focus of coordination across conditions working with IPUs.

• The IPU model will greatly simplify and enhance coordination of care for patients with multiple medical conditions.
Volume in a Medical Condition Enables IPUs and Value

The Virtuous Circle of Value

- Aggregating patient with the same condition has a major impact on the ability to build teams, experience, outcomes, and value.
Moving to IPUs: Specialist Breast Center Certification in Europe

- **Minimum overall volume** (150 new cases annually)
  - Surgeons (50 new cases annually), radiologists, and pathologists meet individual volume minimums

- **Multidisciplinary dedicated teams**
  - Includes surgery, oncology, radiation, pathology, radiology, nursing, psychology, genetics
  - Specialists spend a **minimum % of time** on breast care

- Led by a **Clinical Director**
  - Written protocols for diagnosis, treatment and follow-up
  - Mandatory, weekly multidisciplinary case management meetings including all key team members
  - Discuss care management decisions for **at least 90%** of patients

- Centers **provide (or direct) all services** throughout the patient’s care pathway
  - Affiliations with providers of other needed services – e.g. plastic surgery

- Routinely collect data and analyze **clinical performance**
  - Designated data manager responsible for collecting and analyzing data
  - Benchmarking and annual performance reviews

- Administered by the European Society of Breast Cancer Specialists
Creating a Value-Based Health Care Delivery Organization

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2. Measure **Outcomes** and **Costs** for Every Patient
Measure Outcomes and Costs for Every Patient
The Quality Measurement Landscape

- Patient Initial Conditions
- Risk Factors
- Processes
  - Protocols/Guidelines
- Indicators
  - E.g. PSA, Gleason score, surgical margin
- Outcomes
- Structure
  - E.g. Staff certification, facilities standards

Patient Experience/Engagement/Adherence
Principles of Outcome Measurement

• Outcomes should be measured by **condition**
  – **Not** just around specialties, procedures, or interventions

• Outcomes are **always multi-dimensional** and include what matters most to the **patient**
  – **Not** just to clinicians
The Outcome Measures Hierarchy

Tier 1
- Survival
  - Degree of health/recovery

Tier 2
- Time to recovery and return to normal activities
  - Disutility of the care or treatment process (e.g., diagnostic errors and ineffective care, treatment-related discomfort, complications, or adverse effects, treatment errors and their consequences in terms of additional treatment)

Tier 3
- Sustainability of health/recovery and nature of recurrences

Process of Recovery
- Long-term consequences of therapy (e.g., care-induced illnesses)

Health Status
- Achieved or Retained
  - Achieved clinical status
  - Achieved functional status
  - Time to diagnosis & treatment plan
  - Time to treatment
  - Time to return to normal activities

Sustainability of Health
- Long-term clinical status
- Long-term functional status

Source: NEJM Dec 2010
Principles of Outcome Measurement

• Outcomes should be measured by **condition**
  – **Not** just around specialties, procedures, or interventions

• Outcomes are **always multi-dimensional** and include what matters most to the **patient**
  – **Not** just to clinicians

• **Patient reported outcomes** are needed for every condition

• Outcome should cover the **full cycle of care** for the condition

• Outcome measurement includes **initial conditions/risk factors** to allow adjustment for patient differences

• Outcomes by condition should be **standardized** across providers and sites to maximize the ability to compare, learn, and improve
The Outcome Measures Hierarchy
Dementia Standard Set

- **Survival**
  - All-cause mortality

- **Degree of recovery / health**
  - Functional status (disease progression, symptom burden)
  - Neuro-psychiatric Inventory
  - Cognition (Montreal Cognitive Assessment)

- **Time to recovery or return to normal activities**
  - Time to full-time care

- **Disutility of care or treatment process (e.g., treatment-related discomfort, complications, adverse effects, diagnostic errors, treatment errors)**
  - Falls
  - Hospital Admissions

- **Sustainability of recovery or health over time**
  - Quality of Life and Wellbeing (QOL-AD)
  - Activities of Daily Living (Bristol ADL scale)
  - Caregiver quality of life (EuroQol-5D-5L (EQ5D))

- **Long-term consequences of therapy (e.g., care-induced illnesses)**

Source: ICHOM

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The Power of Outcome Measurement

Adult Kidney Transplant Outcomes

1987-1989

Number of programs: 219
Number of transplants: 19,588
One year graft survival: 79.6%

- 16 greater than predicted survival (7%)
- 20 worse than predicted survival (10%)

The Power of Outcome Measurement
Adult Kidney Transplant Outcomes
2011-2013

Number of programs included: 209
Number of transplants: 38,370
1 Year Graft Survival: 94.7%

- 4 greater than expected graft survival (1.9%)
- 5 worse than expected graft survival (2.4%)
Measuring the Cost of Care Delivery: Principles

- Cost is the **actual expense** of patient care, not the **sum of charges** billed or collected.
- Cost must be measured around by **patient** and **by condition**, aggregating costs aggregated over the **full cycle of care**.
- Understanding costs requires **mapping the care process**.

Mapping Resource Utilization
MD Anderson Cancer Center – New Patient Visit

Registration and Verification
- Receptionist, Patient Access Specialist, Interpreter

Intake
- Nurse, Receptionist
- Assess patient information; assemble paperwork; place patient in room

Clinician Visit
- MD, mid-level provider, medical assistant, patient service coordinator, RN
- Initiate patient workup; review patient history; conduct physical exam

Plan of Care Discussion
- RN/LVN, MD, mid-level provider, patient service coordinator
- Review plan of care; introduce team; review schedule for return visit

Plan of Care Scheduling
- Patient Service Coordinator
- Schedule tests and consults; communicate schedule to patient

- Patient arrives
- Check in patient; communicate arrival
- RCFT
- Verify patient information; complete consent forms
- PAS

- Interpreter needed? RCFT
- Y 5%
- Add language translation time for each process NT, RCFT
- N 95%

- Laryngoscopy needed?
  - Y 90%
  - Perform laryngoscopy MD, MA, PSC
  - N 10%
Measuring the Cost of Care Delivery: Principles

- Cost is the **actual expense** of patient care, not the **sum of charges** billed or collected.

- Cost must be measured around by **patient** and **by condition**, aggregating costs aggregated over the **full cycle of care**.

- Understanding costs requires **mapping the care process**.

- Cost is driven by the **actual use of resources** involved in a patient’s care (personnel, facilities, supplies, and support services).

- Proper cost measurement requires a **different cost accounting approach** than prevailing approaches, such as departmental costing and RVU based costing.

Major Cost Reduction Opportunities in Health Care

• Utilize **physicians and skilled staff** at the top of their licenses
• Eliminate **low- or non-value added** services or tests
• Reduce **process variation** that increases complexity and raises cost
• **Reduce cycle times** across the care cycle
• Move uncomplicated services **out of highly-resourced** facilities
• Reduce **service duplication and fragmentation** across sites
• Rationalize redundant **administrative** and **scheduling** units
• Invest in additional services that will **lower the overall care cycle cost**
• Increase **cost awareness** in clinical teams

• Our work reveals typical **cost reduction opportunities of 20-30%**
• Many cost reduction opportunities will often **improve outcomes**
Combining Outcomes and Cost
Comparing Overall Value in Localized Prostate Cancer Care

Source: HBS, MD Anderson Cancer Center

* Collected on Expanded Prostate Cancer Index Composite
Creating a Value-Based Health Care Delivery Organization

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### Competing Value-Based Reimbursement Models

#### Capitation (Population-Based)
- A single risk-adjusted payment for the overall care for a **life**
- Responsible for **all needed care** in the covered population
- Accountable for **population level quality metrics**
- At risk for the difference between the **sum of payments** for the population and overall spending
- Accountable for **overall cost** and population level quality measures

#### Bundled Payment
- A single risk adjusted payment for the overall care for a **condition**
  - **Not** a specialty, procedure, or short episode
- Covers the **full set** of services needed **over the care cycle** or a **defined time period** for chronic or segment based primary care
- Contingent on **condition-specific outcomes**
  - Including complications
- At risk for the difference between the **bundled price** and the **actual cost** of all included services
  - **Limits of responsibility** for unrelated care and outliers
- Accountable for **outcomes** and **cost**, patient by patient and condition by condition
# Aligning Reimbursement with Value

## Capitation (Population-Based)
- **Little or no accountability** at the patient level
  - Decouples payment from patients’ problems

- Accurate **risk adjustment** is **highly challenging**

- Often reduces **patient choice**

- Leads to focus on generic **high cost areas** across the population

- Provider organizations **offered every service** to capture revenue (“leakage”)

- Threatens **competition** by encouraging health system **consolidation**

- Risk of competition at the **wrong level** (the system) and on the **wrong things**

## Bundled Payment
- **Accountability** condition by condition

- **Risk factors** by condition are usually **well understood**

- Expands and informs **patient choice**

- Drives **multidisciplinary care** (IPUs)

- Directly rewards **good outcomes**

- Strong incentives to **improve efficiency**, but not at expense of quality

- Creates **competition** and **transparency** by condition

- Encourages provider organization to focus on **areas of excellence**

- **Competition on value** condition by condition

- **Accurate risk adjustment** is **highly challenging**

- Often reduces **patient choice**

- Leads to focus on generic **high cost areas** across the population

- Provider organizations **offered every service** to capture revenue (“leakage”)

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- Risk of competition at the **wrong level** (the system) and on the **wrong things**
Bundled Payment in Practice
Hip and Knee Replacement in Stockholm, Sweden

• **Components** of the OrthoChoice bundle

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-op evaluation</td>
<td>All physician and staff fees and costs</td>
</tr>
<tr>
<td>Lab tests</td>
<td>1 follow-up visit within 3 months</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>Responsible for complications and any additional surgery to the joint within 2 years</td>
</tr>
<tr>
<td>All radiology</td>
<td>If post-op deep infection requiring antibiotics occurs, guarantee extends to 5 years</td>
</tr>
<tr>
<td>Surgery &amp; related admissions</td>
<td></td>
</tr>
<tr>
<td>Prosthesis</td>
<td></td>
</tr>
<tr>
<td>Drugs</td>
<td></td>
</tr>
<tr>
<td>Inpatient rehab</td>
<td></td>
</tr>
</tbody>
</table>

• First stage applied only to **relatively healthy patients** (i.e. ASA scores of 1 or 2)
• **Mandatory reporting** by providers to the joint registry plus supplementary reporting
• The Stockholm bundled price for a knee or hip replacement is about **US $8,300**

Results:
- Complications fell 16% after 1\textsuperscript{st} year; 25% after 2\textsuperscript{nd} year
- Functional outcomes remained constant
- Length of stay fell 16%, cost fell by 17%
- Volume shifted toward specialty hospitals and away from full service acute hospitals
- Standardization and improvement of care processes and efficiency took place
- Patients were exceptionally satisfied
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4. Integrate Multi-Site Care Delivery \textbf{Systems}
Four Levels of Provider System Integration

1. Focus on those **conditions, primary care segments, and services** where the organization can deliver high value
   - Do more of what you **do well**
   - Be open to **partner or affiliate** in other service lines

2. **Aggregate volume by condition** in fewer locations

3. Perform the right services in the **right location(s)** based on the condition, acuity level, resource intensity, and need for convenience
   - E.g., move **routine surgeries** out of tertiary hospitals to smaller, more specialized facilities and outpatient surgery centers

4. Integrate the care cycle **across locations** via an IPU structure
Delivering the Right Care at the Right Location
Rothman Institute, Philadelphia

Patient Risk Factors: Age, Weight, Expected Activity, General Health, and Bone Quality

Cost of Total Hip Replacement:
- Ambulatory Surgery Center: ~$12,000 USD
- Rothman Orthopaedic Specialty Hospital: ~$45,000 USD

Facility Capability:
- Lowest Complexity
- Low
- Medium
- Highest Complexity

Location of Hospitals:
- Ambulatory Surgery Center
- Bryn Mawr Community Hospital
- Jefferson University Academic Medical Center
- Rothman Orthopaedic Specialty Hospital
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5. Expand **Geographic Reach** to Drive Excellence
Expand Geographic Reach
The Cleveland Clinic Cardiac Affiliate Program

Central DuPage Hospital, IL
Cardiac Surgery

Chester County Hospital, PA
Cardiac Surgery

Cleveland Clinic Florida Weston, FL
Cardiac Surgery

Cape Fear Valley Medical Center, NC
Cardiac Surgery

Fisher-Titus Medical Center, OH
Cardiac Surgery

McLeod Heart & Vascular Institute, SC
Cardiac Surgery

Pikeville Medical Center, KY
Cardiac Surgery

Rochester General Hospital, NY
Cardiac Surgery

The Bellevue Hospital, OH
Cardiac Surgery
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6. Build an Enabling Information Technology Platform
Build an Enabling IT Platform

Utilize information technology to enable restructuring of care delivery and measuring results, rather than treating IT as a solution unto itself.

Attributes of a Value-Based IT Platform

- Combines all types of data (e.g. notes, tests, and images) for each patient
- Uses common data definitions
- Data encompasses the full care cycle
- Allows access and communication among all involved parties, including patients, other care sites, and referring entities
- Enables data exchange and aggregation across all the sites and provider organizations involved with the patient
- Provides medical condition-specific templates and views to enhance the user interface and support IPU teams
- Create searchable “structured” data vs. free text to facilitate measurement
- The architecture allows easy capture and extraction of outcome measures, process measures, and activity-based costing metrics for each patient by condition and over time
Implications for Singapore

- Move to the **IPU model for acute and chronic care**
  - Across the full care cycle and supporting services
  - Hub and spoke model
  - Interface with PPC practices
  - IPUs

- Move to **segmented primary and preventive care** in multi-clinician, team-based settings
  - Shared prevention hubs for complex prevention (e.g. addiction, smoking, and weight-reduction)
  - Center geriatric care in dedicated primary care practices

- Rollout **standardized outcome measurement** by condition across all providers
  - Including both clinical outcomes and PROMs
  - Goal of full transparency to patients
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<tbody>
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<td>10. Depression and Anxiety</td>
<td>18. Colorectal Cancer</td>
<td>27. Burns</td>
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<td>20. Craniofacial Microsomia</td>
<td>29. Head and Neck Cancer</td>
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<td>21. Inflammatory Bowel Disease</td>
<td>30. Pediatric Oncology (Condition(s) TBD)</td>
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</table>

* Published Thus Far in Peer-Reviewed Journals

Burden of Disease Covered

- 18%
- 35%
- 45%

To learn more about ICHOM please visit us at [www.ichom.org](http://www.ichom.org)
Implications for Singapore

• Define **activity-based cost accounting standards** for cost reporting

• Move to **bundled payments** for acute condition, chronic conditions, and primary care segments
  - Start with high-volume and less complex conditions and populations

• **Reduce duplication** of hospitals/service lines
  - Increase volume
  - IPU-based certification

• **Open competition** across geography to encourage specialization

• Mandate and support **value based** EMR adoption over time