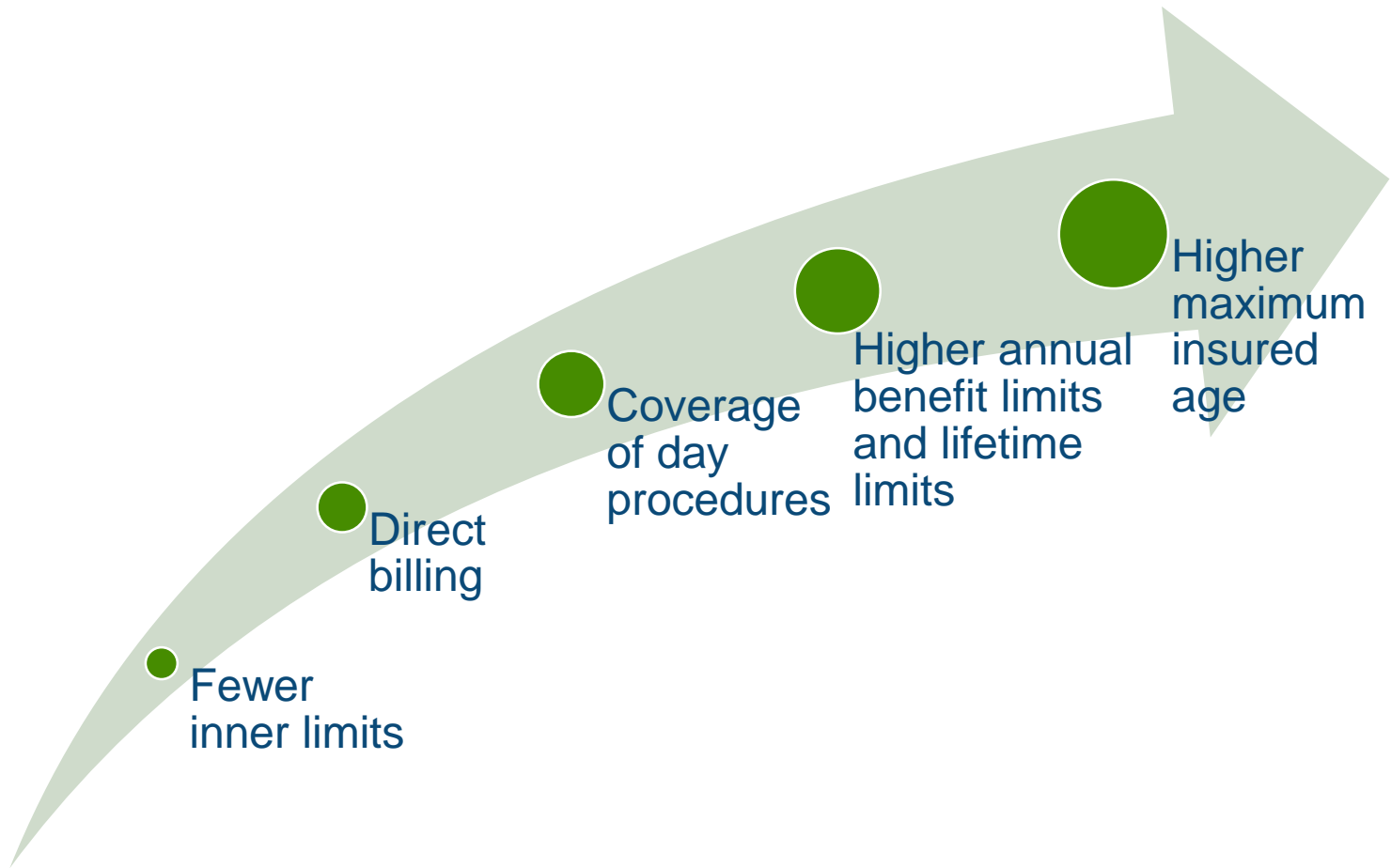




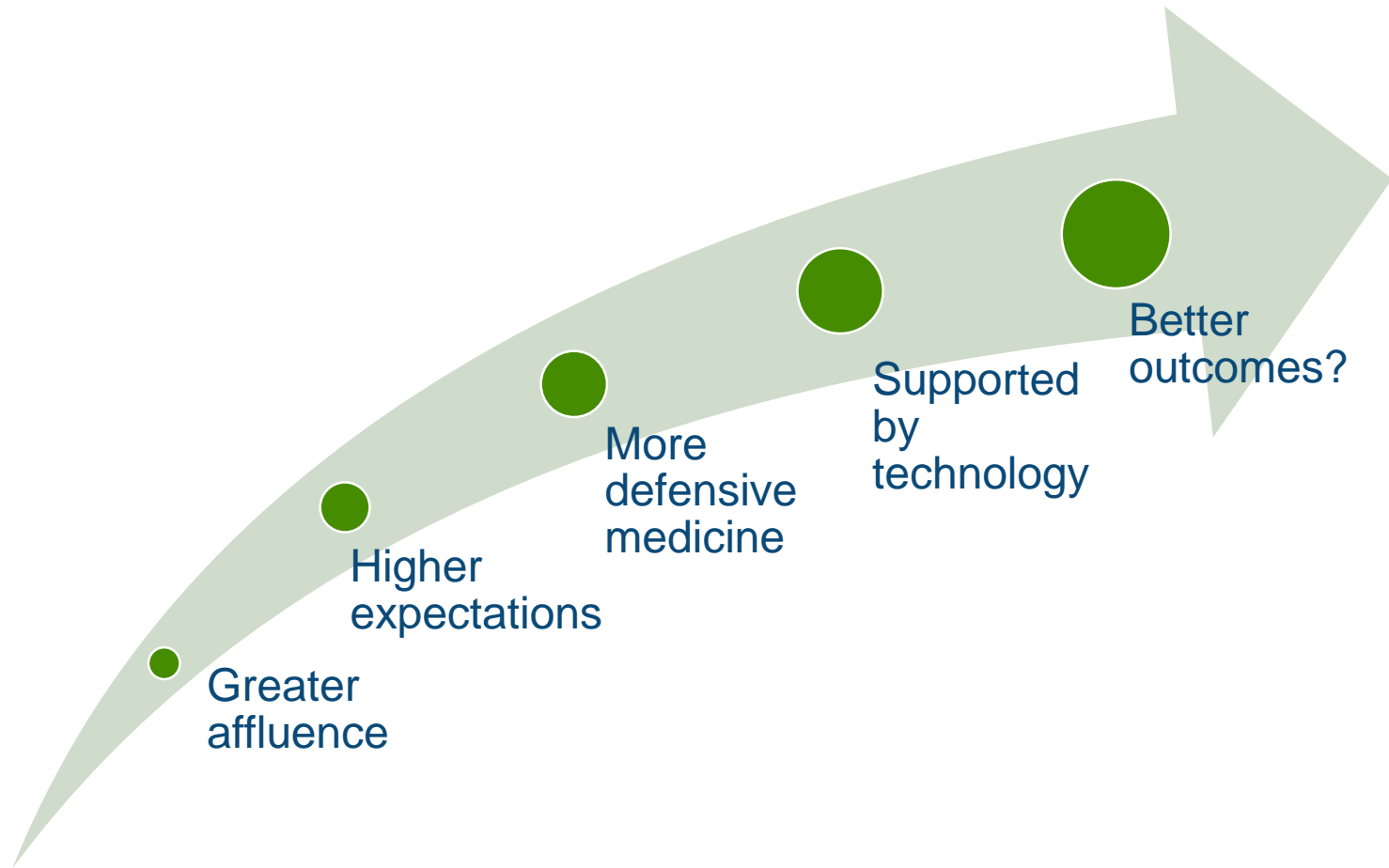
# Sustainable Healthcare for All

October 2017

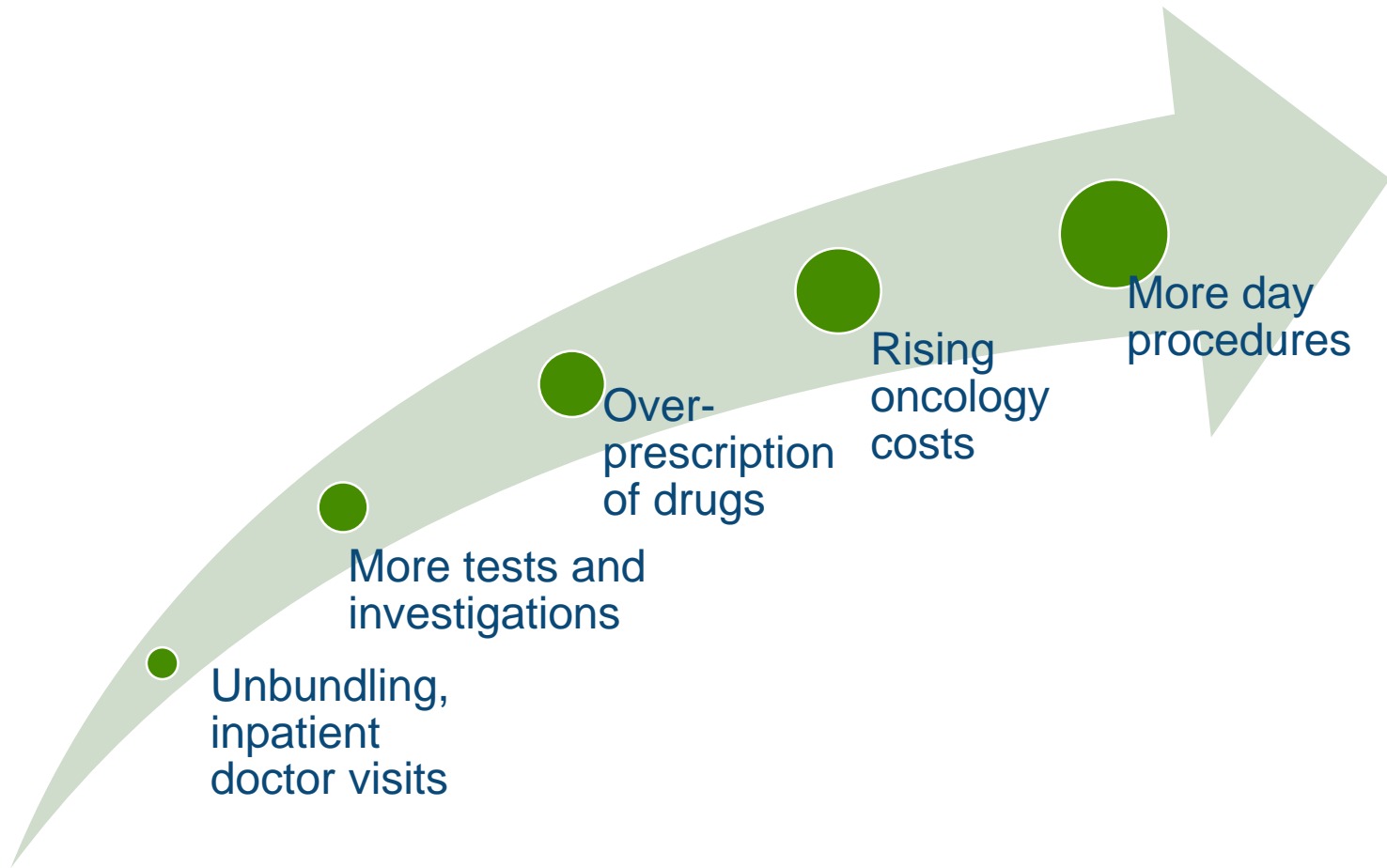
# Evolution of product designs has led to rising medical costs



# A more affluent society has led to higher costs

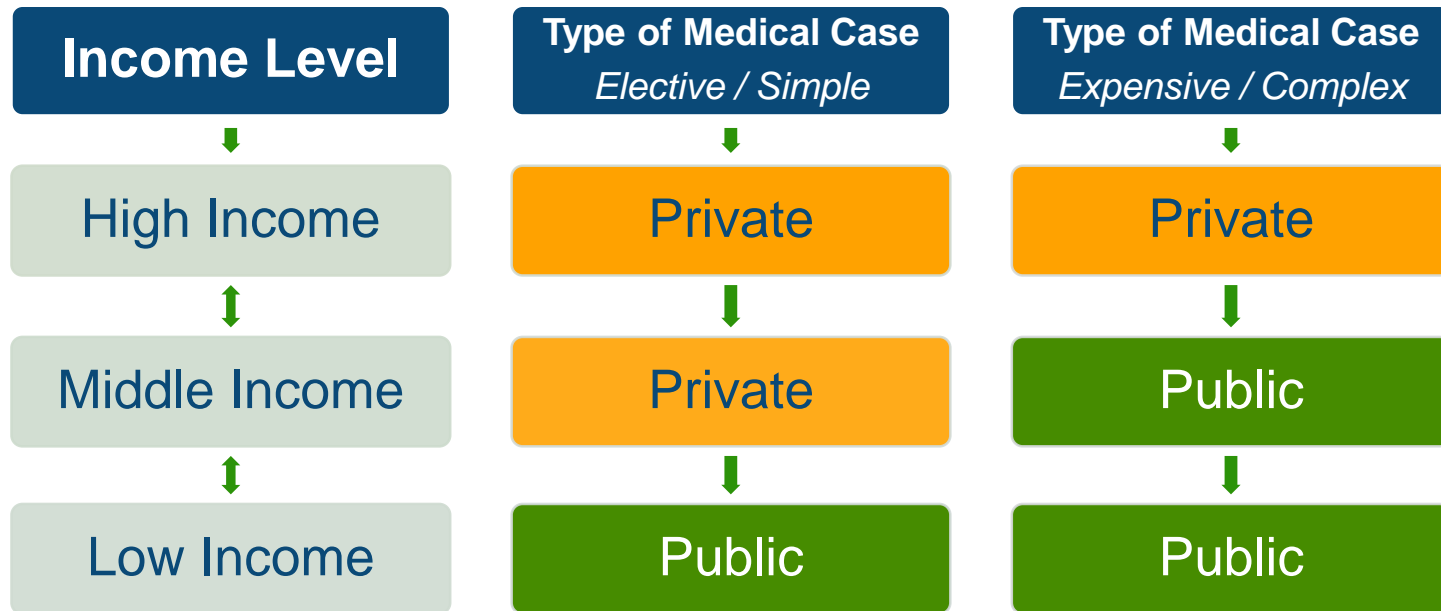


# Medical cost trends in the region



# PMI: Complementary to Public Health Systems

- Patients use public vs. private healthcare services according to their needs and ability to pay



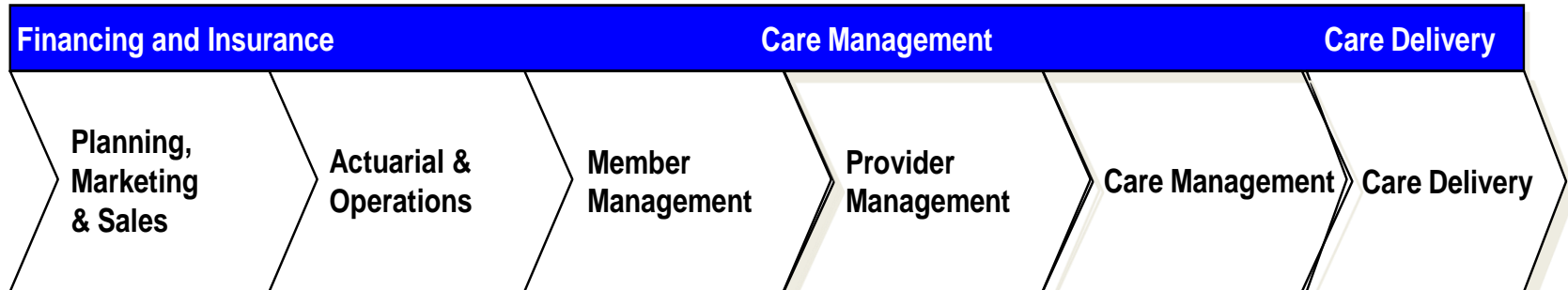
- But some policyholders have purchased more than they want/need.

# Health Insurance Value Chain

## Indemnity Plan

## Managed Care

## Integrated Delivery System



- Branding
- Product development
- Sales channel management

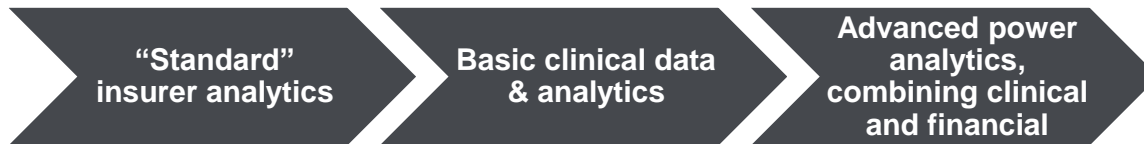
- Pricing & reserving
- Claims
- Enrollment & eligibility
- Billing
- Connectivity
- Management reporting & analysis
- Utilisation & unit cost targets

- Member engagement, education & information
- Appeals/ grievances
- Member services

- Network development & provider contracting
- Provider reimbursement
- Provider relations
- Credentialing
- Provider profiling

- Utilisation management
- Case management
- Demand management
- Disease management
- Clinical outcomes measurement
- Quality measurement & improvement

- Primary care
- Specialty care
- Hospital Care
- Physician practice management
- Pharmacy
- Ancillary care
- Skilled nursing care
- Long-term care
- Rehabilitation care



# Basic Claims Cost Management

## What Has Worked in the US

Service Area	Process	Cost Impact
All	Network Management & Provider Contracting	Significant
Inpatient (Procedures & Urgent Care)	Prior Authorization & Inpatient Concurrent Review (Case Management)	Significant
Outpatient Procedures (Surgeries etc.)	Prior Authorization	Small to Moderate
High Cost Outpatient Diagnostic Tests	Prior Authorization	Moderate to Major
Drugs	Drug Utilization Review	Moderate
Chronic Disease	Disease Management	None with some exceptions
	Total	~ 30% to 40% reduction

# Claims Cost Management

## What Doesn't Work

Service Area	Process	Cost Impact
All	Ambulatory Case Management (Except for negotiated discounts)	None
Inpatient Hospitals (Procedures & Urgent Care)	Second Surgical Opinion	None with some exceptions
Outpatient Procedures (Surgeries etc.)	Second Surgical Opinion	None with some exceptions
	Total	0%to 5% reduction



# Claims Cost Management in the Region

	HK	Singapore	Malaysia	Indonesia
Provider contracting – fees	N	Y	Y	Y
Provider contracting – protocols	N	N	N	Limited
Prior authorisation	N	N	Y	Y
Concurrent review	N	N	N	Limited
Drug utilisation review	N	N	N	Limited
Disease management	Limited	Limited	Limited	Limited
SSO	V limited	V limited	V limited	N
Meaningful retrospective review	N	N	Limited	Some

**HK and Singapore hamstrung by limited choice of hospitals**

**....and by agents**

# Insurer A

## Provider reimbursement

- Case rates for procedures
- Analytics-based discounted fee schedules

## Prior authorisation

- The only form of “gate-keeping” available for inpatient products
- Move to expert systems to triage admissions for efficient allocation of resource and streamline processes

## Fraud Waste Abuse (FWA) Analytics

- Identify leakage from agents/brokers, policyholders, providers and potential collusion
- Drives product design, distribution management and development of UW and claim guidelines / expert systems

## Rules based systems

- For UW and for claims
- Consistent vigorous checks applied to each claim including clinical necessity and cost/utilisation benchmarking specific to that provider

---

# But we need to invest.....

- More granular data
- Better coding
- More analytics to drive strategic initiatives

# Benchmarking of experience against well management health systems can identify areas of inefficiencies and potential savings.

## Remedies will depend on the stage of the health insurance value chain.

### HCG Benchmark Compare

Complete

Incurred 2012-09 to 2013-08

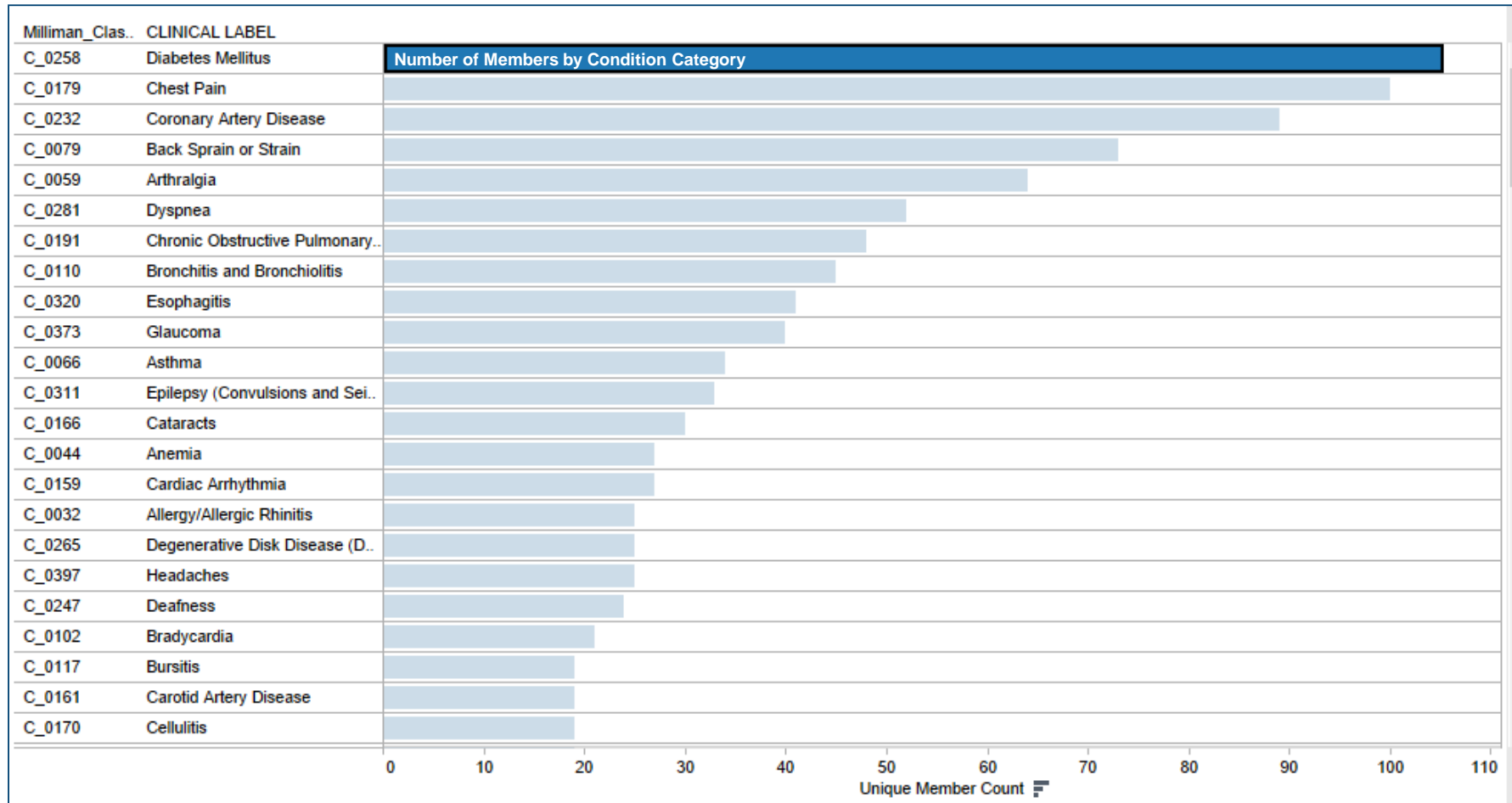
HCG Setting All

Gender All Age Band All

Unfiltered Group Name, Medical Plan, Plans, Products, Networks, Markets, Pharmacy Vendor, Sub Population

HCG Heading	Admits per 1,000		Avg LOS		Utilization per 1,000		Allowed per Util		Allowed PMPM	
	Actual	50% Managed	Actual	50% Managed	Actual	50% Managed	Actual	50% Managed	Actual	50% Managed
<b>1. Facility Inpatient</b>	<b>77.8</b>	<b>104.0</b>	<b>5.57</b>	<b>5.89</b>	<b>433.9</b>	<b>625.6</b>	<b>\$2,876</b>	<b>\$2,412</b>	<b>\$104.00</b>	<b>\$122.29</b>
<i>111a - HIP Medical - General</i>	33.7	39.2	4.53	3.97	152.6	158.9	\$3,168	\$2,859	\$40.30	\$37.31
<i>111b - HIP Medical - Rehabilitation</i>	1.0	1.6	16.57	11.58	16.8	19.3	\$1,002	\$1,284	\$1.40	\$2.04
<i>112 - HIP Surgical</i>	19.5	24.1	4.34	4.47	84.8	109.3	\$6,366	\$6,532	\$44.99	\$58.48
<i>113a - HIP Psychiatric - Hospital</i>	1.9	2.0	8.16	7.37	15.4	15.1	\$1,294	\$1,107	\$1.66	\$1.38
<i>113b - HIP Psychiatric - Residential</i>		0.1		33.38		3.8		\$424		\$0.13
<i>114a - HIP Alcohol and Drug Abuse - Hospital</i>	1.1	0.6	8.91	6.74	10.1	4.8	\$817	\$1,229	\$0.69	\$0.38
<i>114b - HIP Alcohol and Drug Abuse - Residential</i>	0.0	0.8	13.67	15.85	0.6	13.9	\$444	\$653	\$0.02	\$0.63
<i>121a - HIP Mat Norm Delivery</i>	0.0	4.0	1.78	2.17	0.0	8.7	\$3,440	\$2,587	\$0.01	\$1.88
<i>121b - HIP Mat Norm Delivery - Mom/Baby Ombnd</i>	6.8	3.0	2.28	2.22	15.5	6.7	\$3,814	\$3,435	\$4.92	\$1.90
<i>122a - HIP Mat Csect Delivery</i>	0.0	1.8	2.50	3.46	0.0	6.2	\$5,282	\$2,760	\$0.01	\$1.41
<i>122b - HIP Mat Csect Delivery - Mom/Baby Ombnd</i>	1.9	1.3	3.26	3.36	6.2	4.4	\$3,965	\$3,561	\$2.04	\$1.29
<i>123 - HIP Well Newborn</i>	3.2	6.6	1.77	1.90	5.7	12.5	\$1,039	\$1,008	\$0.49	\$1.05
<i>124 - HIP Other Newborn</i>	1.7	1.9	4.59	6.12	7.9	11.5	\$3,482	\$2,483	\$2.30	\$2.39
<i>125 - HIP Maternity Non-Delivery</i>	0.7	0.8	3.44	2.84	2.3	2.2	\$3,029	\$3,042	\$0.57	\$0.56
<i>131 - HIP SNF</i>	6.2	16.1	18.68	15.17	116.0	248.4	\$474	\$562	\$4.59	\$11.46
<b>2. Facility Outpatient</b>					<b>1,286.0</b>	<b>2,168.9</b>	<b>\$837</b>	<b>\$565</b>	<b>\$89.72</b>	<b>\$103.85</b>
<b>3. Professional</b>					<b>17,525.7</b>	<b>17,463.6</b>	<b>\$124</b>	<b>\$99</b>	<b>\$181.38</b>	<b>\$145.47</b>
<b>4. Prescription Drug</b>					<b>12,468.9</b>	<b>13,981.9</b>	<b>\$64</b>	<b>\$78</b>	<b>\$66.58</b>	<b>\$91.62</b>
<b>5. Ancillary</b>					<b>843.0</b>	<b>1,080.8</b>	<b>\$174</b>	<b>\$203</b>	<b>\$12.20</b>	<b>\$18.13</b>
<b>Grand Total</b>	<b>77.8</b>	<b>104.0</b>	<b>5.57</b>	<b>5.89</b>	<b>32,557.5</b>	<b>35,320.9</b>	<b>\$167</b>	<b>\$162</b>	<b>\$453.87</b>	<b>\$481.36</b>

## Diagnostic Groupers to look at the clinical distribution of populations. The use case depends on the health system in each country, but stratifying members into mutually exclusive groups can help with targeted services, risk adjustment and new proposition design



# Chronic Condition Hierarchical Groups (CCHGs) to support baseline, trends and risk adjustment to identify members contributing to high trends

CCHG	Description	Members Equivalent			PPPM			PMPM			Contribution to Trends
		2013-2014	2014-2015	Trend	2013-2014	2014-2015	Trend	2013-2014	2014-2015	Trend	
105	Liver disease (Hepatitis, Cirrhosis) – post transplant	314	482	54% ↑	£189	£193	2% ↑	£0.6	£0.8	39% ↑	-23%
102	Severe dementia	948	1,213	28% ↑	£330	£295	-11% ↓	£2.5	£2.7	6% ↑	-17%
118	Chronic musculoskeletal/osteo arthritis/osteporosis	2,223	2,933	32% ↑	£118	£116	-2% ↓	£2.2	£2.3	6% ↑	-15%
120	Gastrointestinal disorders	952	1,266	33% ↑	£84	£87	4% ↑	£0.7	£0.8	14% ↑	-10%
114	COPD	662	856	29% ↑	£127	£120	-6% ↓	£0.7	£0.8	13% ↑	-9%
107	Severe rheumatic & other connective tissue disease	793	1,046	32% ↑	£229	£216	-6% ↓	£1.5	£1.6	5% ↑	-9%
104	Renal failure - post transplant	793	970	22% ↑	£394	£352	-11% ↓	£2.4	£2.5	3% ↑	-7%
140	Healthy Female (70-74)	3,045	2,708	-11% ↓	£28	£30	8% ↑	£0.4	£0.4	11% ↑	-4%
110	Both CAD & diabetes	298	429	44% ↑	£215	£213	-1% ↓	£0.6	£0.6	3% ↑	-2%
124	Unhealthy newborns and preemies	37	46	24% ↑	£44	£56	28% ↑	£0.0	£0.0	45% ↑	-1%
142	Healthy Female (80-84)	1,886	1,485	-21% ↓	£31	£32	4% ↑	£0.2	£0.2	2% ↑	-1%
106	HIV	-	-	0% →	£0	£0	0% →	£0.0	£0.0	0% →	0%
128	Healthy Male (6-15)	-	-	0% →	£0	£0	0% →	£0.0	£0.0	0% →	0%
136	Healthy Female (6-15)	-	-	0% →	£0	£0	0% →	£0.0	£0.0	0% →	0%
144	Other Healthy (Unknown Age or Gender)	(10)	(20)	100% ↓	£0	£0	0% →	£0.0	£0.0	0% →	0%
127	Healthy Child (2-5)	1	6	500% ↑	£11	£0	-100% ↓	£0.0	£0.0	-100% ↓	0%
126	Healthy Infant (0-1)	6	27	350% ↑	£21	£14	-35% ↓	£0.0	£0.0	-71% ↓	0%
123	Dermatologic disorders	296	328	11% ↑	£52	£45	-13% ↓	£0.1	£0.1	-5% ↓	1%
109	Hemophilia & sickle cell & chronic blood disorders	106	114	8% ↑	£201	£205	2% ↑	£0.1	£0.1	-5% ↓	1%
117	Mental retardation/disability congenita anomaly	230	382	66% ↑	£81	£65	-19% ↓	£0.2	£0.2	-6% ↓	1%
131	Healthy Male (65-69)	4,233	3,920	-7% ↓	£27	£26	-2% ↓	£0.5	£0.4	-3% ↓	1%
135	Healthy Male (85+)	878	614	-30% ↓	£35	£32	-9% ↓	£0.1	£0.1	-10% ↓	1%
132	Healthy Male (70-74)	2,605	2,246	-14% ↓	£27	£26	-3% ↓	£0.3	£0.3	-4% ↓	1%
139	Healthy Female (65-69)	4,632	4,251	-8% ↓	£30	£29	-4% ↓	£0.6	£0.5	-3% ↓	2%

## Use of evidence based measures and waste indicators can identify poor quality and profile providers to uncover fraud waste and abuse. Combined to calculate potential system waste

Id #	Waste Headline	Waste Short Description	Waste Mnemonic
1	Pap smear under 21	Don't perform Pap smears on women younger than 21	FP01
2	PSA	The USPSTF recommends against PSA-based screening for prostate cancer. This recommendation applies to men in the general U.S. population, regardless of age.	CG01
3	Colonoscopy	The USPSTF recommends against screening for colorectal cancer in adults older than age 85 years.	CG02
4	Sinus CT	Don't order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhinosinusitis.	AI01a, AI01b
5	Lower back pain image	Don't do imaging for low back pain within the first six weeks, unless red flags are present.	FP02
6	Dexa	Don't use dual-energy x-ray absorptiometry (DEXA) screening for osteoporosis in women younger than 65 or men younger than 70 with no risk factors.	FP03
7	Headache Image	Don't do imaging for uncomplicated headache.	RO01
8	Syncope Image	In the evaluation of simple syncope and a normal neurological examination, don't obtain brain imaging studies (CT or MRI).	PY01
9	Breast cancer scan	Don't perform PET, CT, and radionuclide bone scans in the staging of early breast cancer at low risk for metastasis.	CO03

# Quality can be measured with power analytics and used as part of an engagement program with providers.

Back to My Reports  
Go Back One Screen

Practitioner: AGUILAR, JAMES Z

View Report

1 of 1 100% Find | Next Select a format Export

## Confidential Practitioner Results

Your Quality Scores Compared to Clinic, Group, State and Top Performers



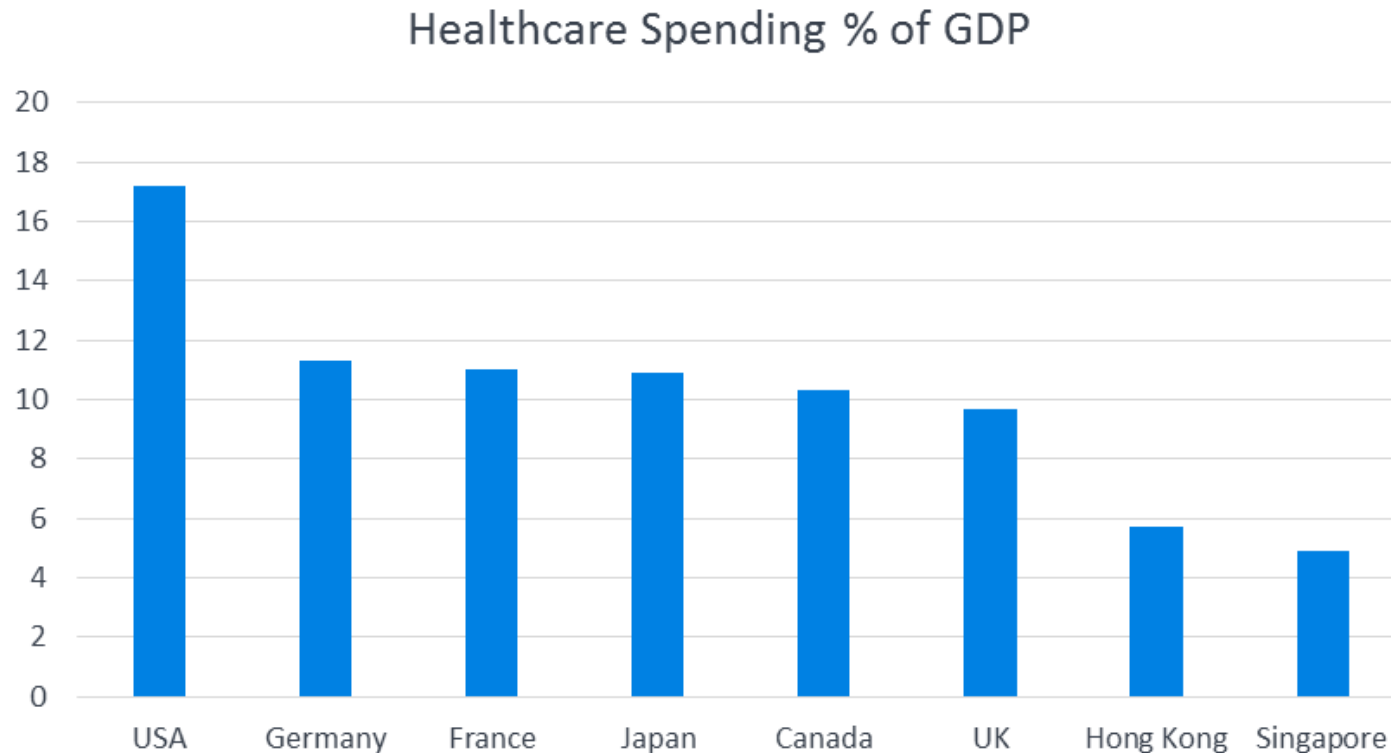
Practitioner: JAMES Z AGUILAR (QCP22020)

Clinic: LAKESIDE CARE CENTER (62)

Measure	Number of Patients	Your Quality Scores	95% Confidence Interval	Clinic Score	Your Medical Group Average	Median Quality Score for State	State ABC Benchmark	HEDIS 2008 Benchmark Rates 90th Percentile
<a href="#">Breast Cancer Screening - TOTAL</a>	32	50.0 %	34% - 66%	51.7 %	68.1 %	72.5 %	85.3 %	71.3 %
<a href="#">Breast Cancer Screening (age 40-51)</a>	9	55.6 %	27% - 81%	50.8 %	63.1 %	69.2 %	81.2 %	
<a href="#">Breast Cancer Screening (age 52-69)</a>	23	47.8 %	29% - 67%	52.3 %	71.5 %	76.7 %	87.7 %	
<a href="#">Cervical Cancer Screening (age 21-64)</a>	61	67.2 %	55% - 78%	66.5 %	74.6 %	73.2 %	83.6 %	78.5 %
<a href="#">Chlamydia Screening in Women - TOTAL</a>	10	60.0 %	31% - 83%	65.3 %	38.2 %	28.6 %	52.5 %	44.5 %
<a href="#">Chlamydia Screening in Women (age 16-20)</a>	2	100.0 %	34% - 100%	68.2 %	41.1 %	30.0 %	57.7 %	
<a href="#">Chlamydia Screening in Women (age 21-25)</a>	8	50.0 %	22% - 78%	63.0 %	36.5 %	25.0 %	53.5 %	
<a href="#">Diabetes Care, HbA1c Testing (age 18-75)</a>	14	100.0 %	78% - 100%	71.6 %	81.5 %	85.2 %	93.5 %	84.7 %
<a href="#">Diabetes Care, LDL-C Screening (age 18-75)</a>	14	100.0 %	78% - 100%	71.6 %	76.1 %	78.8 %	90.3 %	80.0 %
<a href="#">Diabetes Care, Eye Exam (age 18-75)</a>	14	92.9 %	69% - 99%	83.8 %	67.1 %	60.0 %	78.2 %	45.9 %
<a href="#">Diabetes Care, Diabetic Nephropathy (age 18-75)</a>	14	100.0 %	78% - 100%	83.8 %	80.1 %	83.3 %	94.3 %	79.6 %

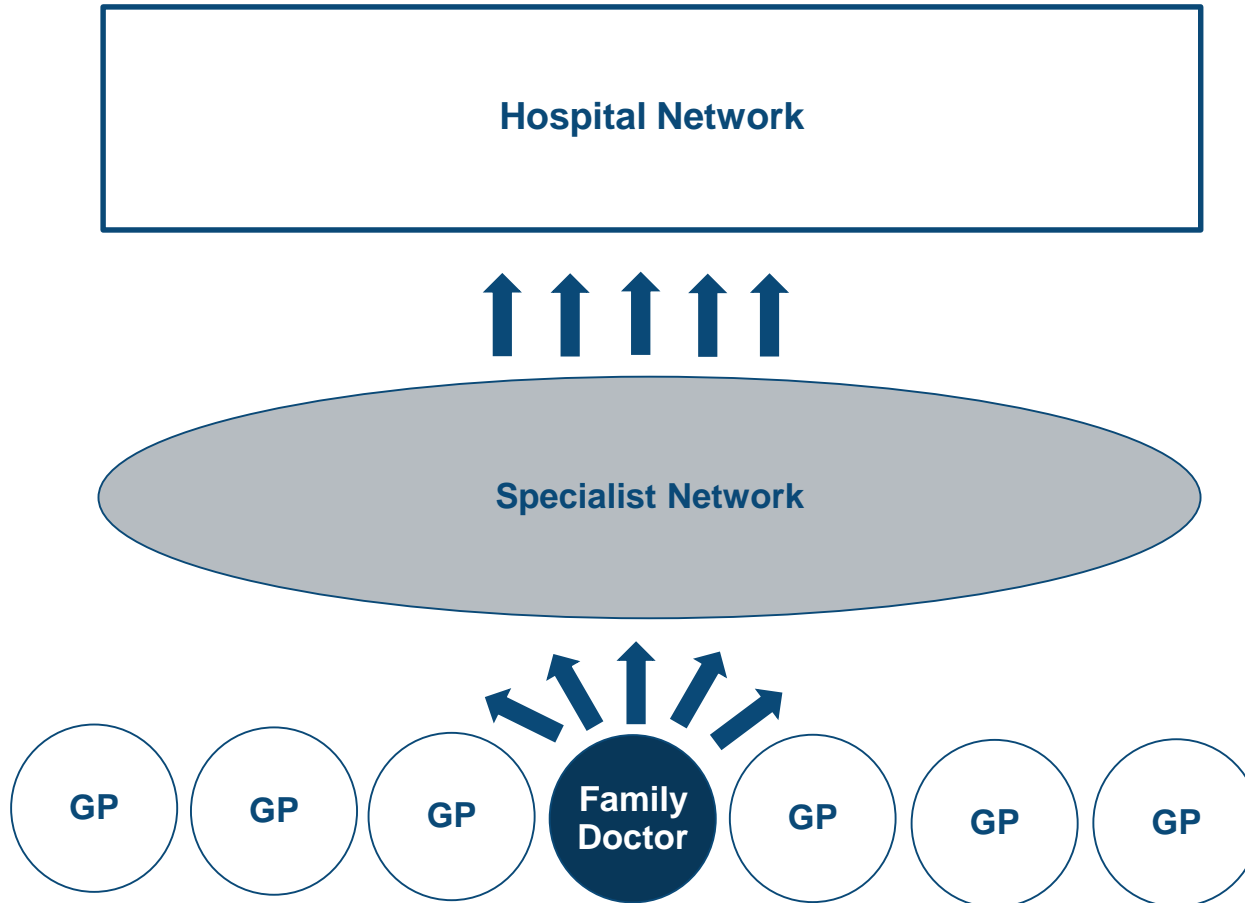


# National healthcare spending in developed Asian countries remains low



.....due to dominant healthcare systems with centralised rationing, providing a safety net and alternative to private care

# HMO in Asia



- Hospitals paid discounted fee for service
- Moving towards bundled payments / DRGs

- Specialists paid discounted fee for service

- Select Family Doctor from network of GPs
- Family Doctor paid monthly capitation

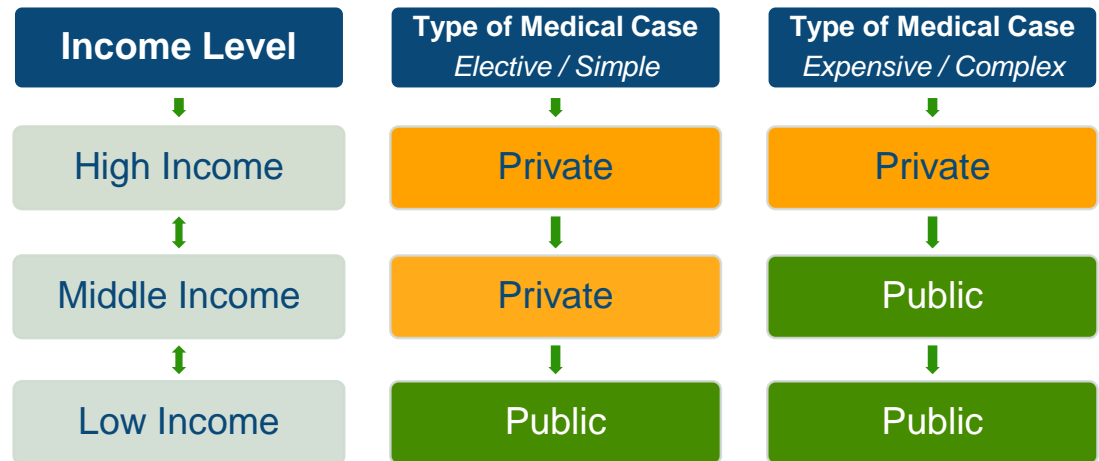
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# HMO in Asia – a different approach to rationing and offering choice to customers

- Comprehensive benefits with no benefit limits!
- Includes maternity, rehabilitation, dental and even vision benefits
- Heavy reliance on Family Doctor as a gate keeper to manage utilisation and wellness of the member
- Profiling of specialists and hospitals
- Contracts in place with all providers; providers graded according to effectiveness of care
- Bronze, Silver and Gold networks corresponding to Bronze, Silver and Gold plans.
- Lower plans exclude specific catastrophic illnesses; member expected to revert public health system for these conditions
- Drug formulary put in place; more restrictive formularies (generic vs. branded) for lower plans

# Taking a Step Back

- Do we know our customer well enough? How do customers want to access healthcare services? What type of cover do customers want?
- Are we pushing products?
- Are we in the business of writing cheques? Or are we in the business of managing health and purchasing services?
- How do we truly manage healthcare spending?
- To what extent can we align incentives?



**Thank you!**