

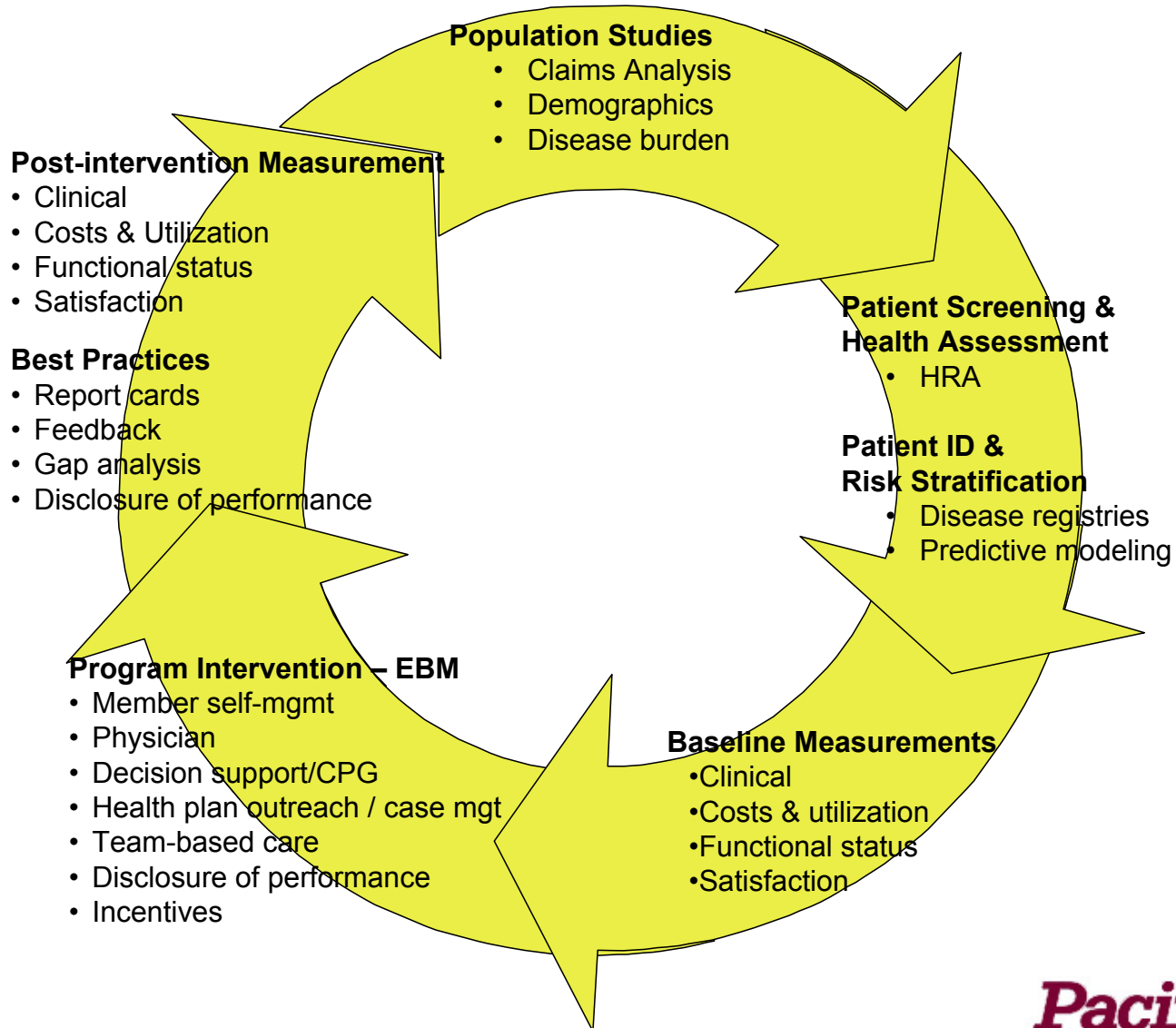
Health Care IT and Disease Management

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SVP, Chief Medical Officer

PacifiCare[®]

Since 1997...Chronic Care Initiatives & CQI



DM & HIT – Current State

- Health Plan
 - Analytics
 - Portal Initiatives
 - Care Management
- Consumer / Member
 - Web-based
- Clinician
 - Workflow management
 - Disease registries
 - Web-based
 - EMR

DM & HIT – Current State

Health Plan

- Analytics
 - Demographics
 - Disease prevalence
 - Pareto groups
 - Episode grouping
 - Severity adjustment
 - Outcome analysis
 - Profiling
 - Exception reports
- Care Management
 - Biometrics
 - Nurse On-line
 - Education
 - POC functions
- Portal
 - HRA
 - Health libraries
 - PHR
 - DM flow sheets
 - Rx Svcs
 - Admin Svcs
 - RACER

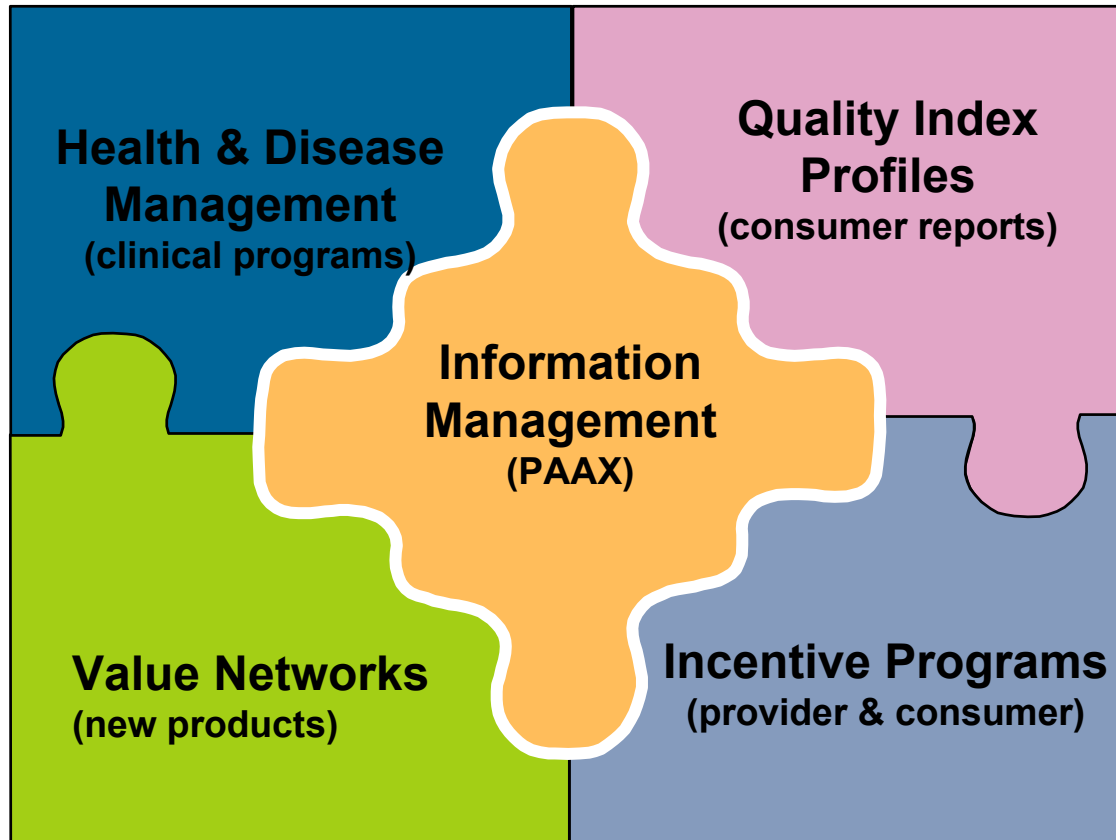
DM & HIT – Current State

- Consumer / Member
 - Plan links
 - HRA
 - Health libraries
 - PHR
 - Self-management
 - MD links
 - Nurse on-line
 - Chat / Support

DM & HIT – Current State

- Clinician
 - CM on-line
 - Disease registries
 - Clinical decision support
 - Rx POC
 - Gap analysis
 - CPG / EBM
 - Patient education
 - Aggregated & patient-specific reports

Informatics = Platform for Innovation



Disease Management Continuum



1998

- Taking Charge of Diabetes® (1997)
- Taking Charge of Your Heart Health

1999

Taking Charge of Depression

2001

- Case-based CHF
- Case-based CVD/Stroke
- Case-based ESRD
- Case-based COPD

2002

- Taking Charge of Asthma
- Case-based Cancer
- Case-based NICU

2003

Case-based Orthopedics Program

2004

- Health Risk Assessment
- Health Credits
- Taking Charge of Fitness (2005)



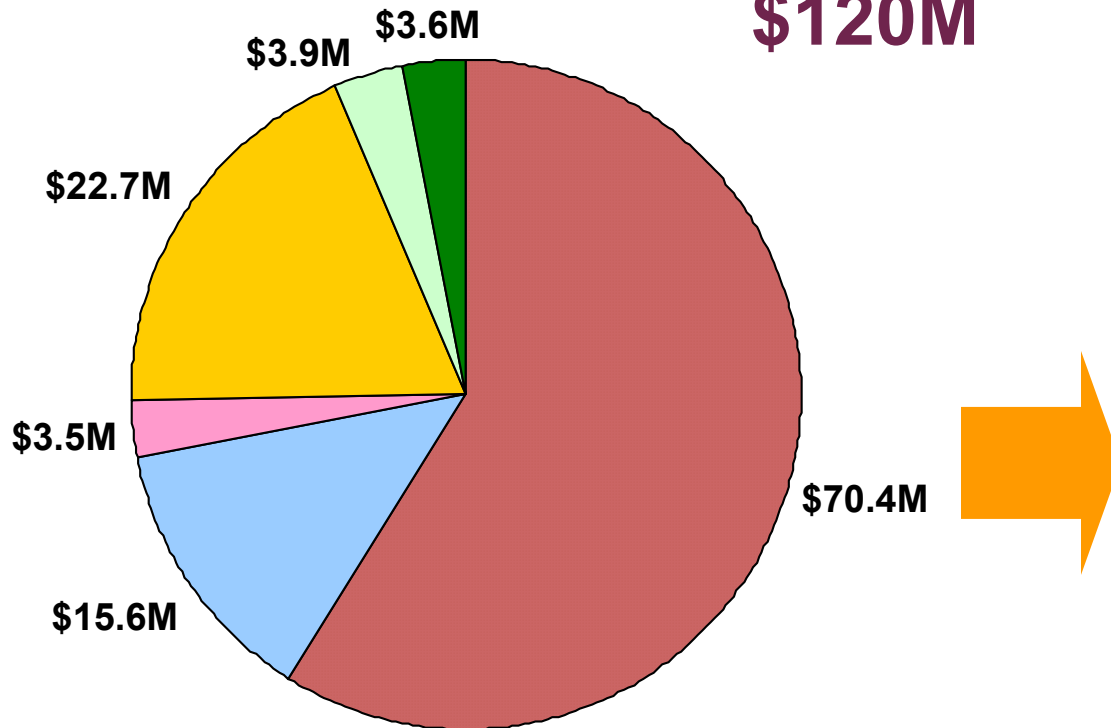
Quality Improvement Highlights

- Congestive Heart Failure
 - Increased appropriate Rx by 26%
 - Reduced hospitalization in enrollees by over 50%, saving \$69M cumulatively
- Coronary Artery Disease / Stroke
 - 30% reduction in rate of heart attack & stroke
 - Appropriate Rx @ 98% vs. RAND study of US avg = 45%
- Chronic Obstructive Pulmonary Disease
 - 12% reduction in hospitalization
 - 32% quit smoking rate
- Cancer
 - 18% reduction in hospitalization
- Diabetes
 - Improved blood sugar & cholesterol control by 25-29%

DM Program Savings

Current Rolling 12 Month
DM Program Savings

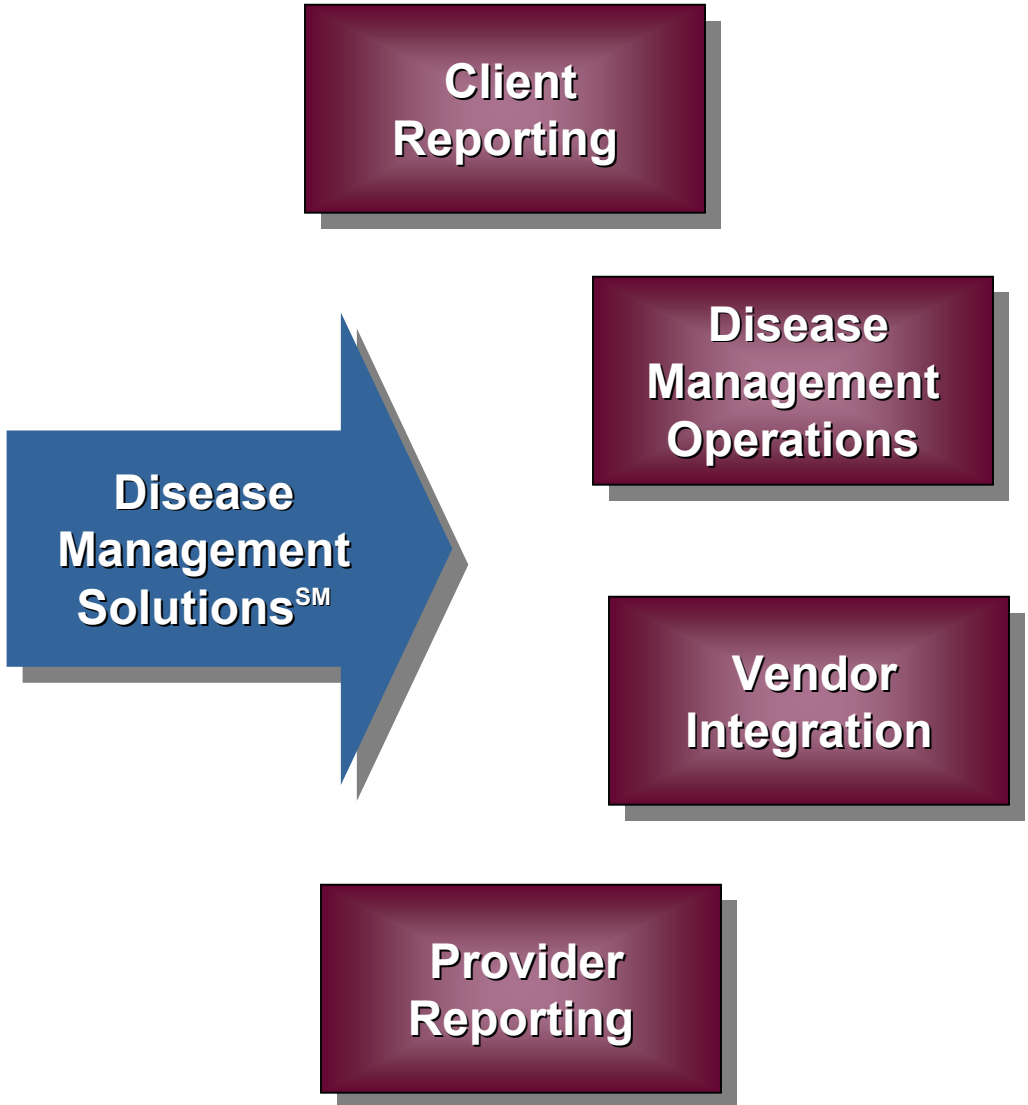
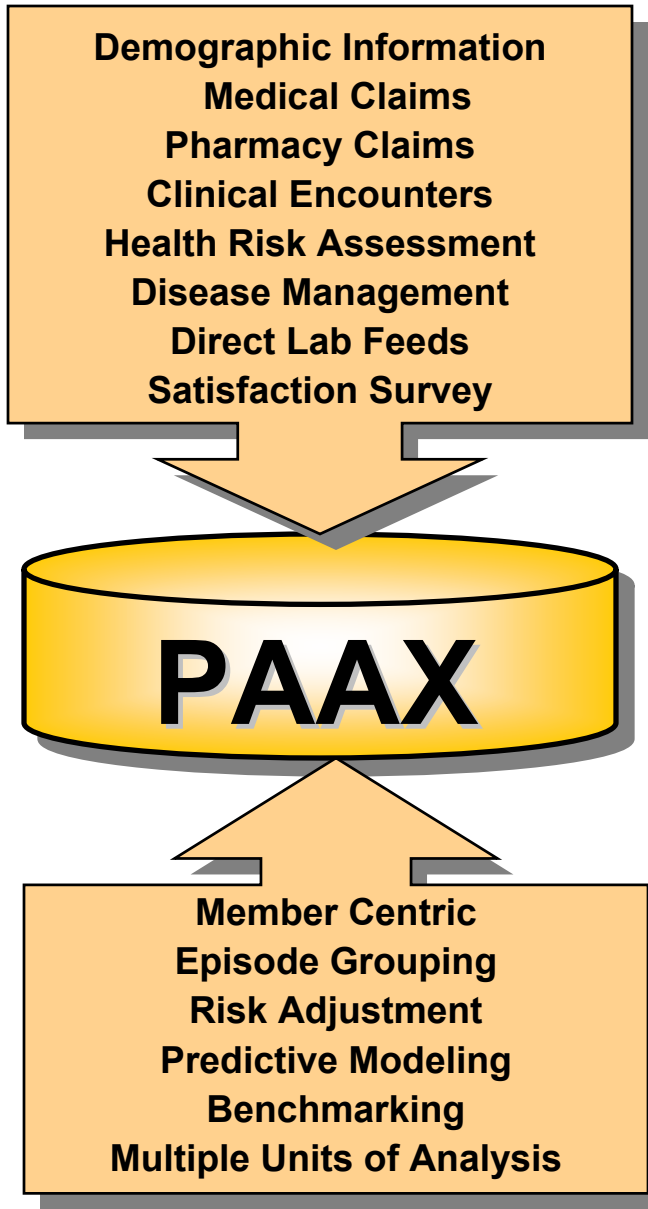
\$120M



Cumulative DM Savings from 12/00 Program Inception
\$294.6

CHF COPD ESRD Cancer CAD NICU Slice 7

Source: DM Mgt Outcome Report August 2004 (Incurred claims through Feb 2004; paid through July 2004)



Pareto Group Analysis

Top 5% M+C Members Condition	1999 Members	1999 Total Paid
Congestive Heart Failure	1,404	\$ 47,132,359
End Stage Renal Disease	365	\$ 13,803,889
Chronic Obstructive Pulmonary Disease	329	\$ 10,891,398
Cancer	660	\$ 17,885,215
CAD and Stroke	1,114	\$ 32,028,719
Orthopedic	26	\$ 801,883
Diabetes	314	\$ 8,689,616
Rare Diseases	231	\$ 6,090,595
Other	769	\$ 18,287,072
Asthma	78	\$ 1,801,407
Depression	194	\$ 4,726,350
Total - Top 5%		\$162,138,503
		\$244,354,983
Top 5% Cost as % of Total Institutional Cost		66.4%

Top 5% Comm. Members Condition	1999 Members	1999 Total Paid
Neonatal Intensive Care	119	\$ 9,401,406
Congestive Heart Failure	242	\$ 5,178,253
End Stage Renal Disease	81	\$ 2,823,448
Chronic Obstructive Pulmonary Disease	83	\$ 2,092,288
Cancer	909	\$ 16,415,878
CAD and Stroke	866	\$ 12,455,147
Orthopedic	58	\$ 1,252,481
Diabetes	664	\$ 4,703,505
Rare Diseases	685	\$ 5,825,854
Other	10,131	\$ 42,879,443
Asthma	585	\$ 2,951,761
Depression	1,242	\$ 5,897,629
Maternity	3,592	\$ 14,643,986
Total - Top 5%		\$126,521,078
		\$137,109,299
Top 5% Cost as % of Total Institutional Cost		92.3%

Power of PAAX

*Individual, Aggregate
Demographic
Data*

*Current
Severity
Score/Var.*

*Predictive
Severity
Score/Var.*

*Individual, Aggregate
Cost
Data*

Person ID	Gender	Member Months Med	Member Age Avg	Relative Risk Score Concurrent	%Diff from Plan Avg	Relative Risk Score Prospective Explanatory	%Diff from Plan Avg	Net Pay Med	Net Pay Fac Med	Net Pay Prof Med	Net Pay Rx
Total	Female	8,200	48.8	766	1142%	598	710%	\$14,725,798	\$10,188,531	\$4,537,266	\$1,512,629
	Male	7,249	51.8	705	1043%	577	682%	\$11,183,769	\$7,066,940	\$4,116,829	\$2,094,131
630340101	Male	9	53.9	4,351	6953%	3,279	4345%	\$51,605	\$36,563	\$15,042	\$1,676
620653402	Male	10	45.9	4,942	7911%	3,182	4213%	\$27,602	\$24,274	\$3,328	\$1,671
484904801	Male	1	154.0	8,032	12920%	3,128	4140%	\$21,726	\$12,261	\$9,465	\$612
485129201	Female	12	56.2	6,361	10211%	3,037	4017%	\$476,936	\$436,496	\$40,440	\$13,823
604903802	Female	8	69.0	3,182	5058%	3,002	3969%	\$968,369	\$908,267	\$60,103	\$2,035

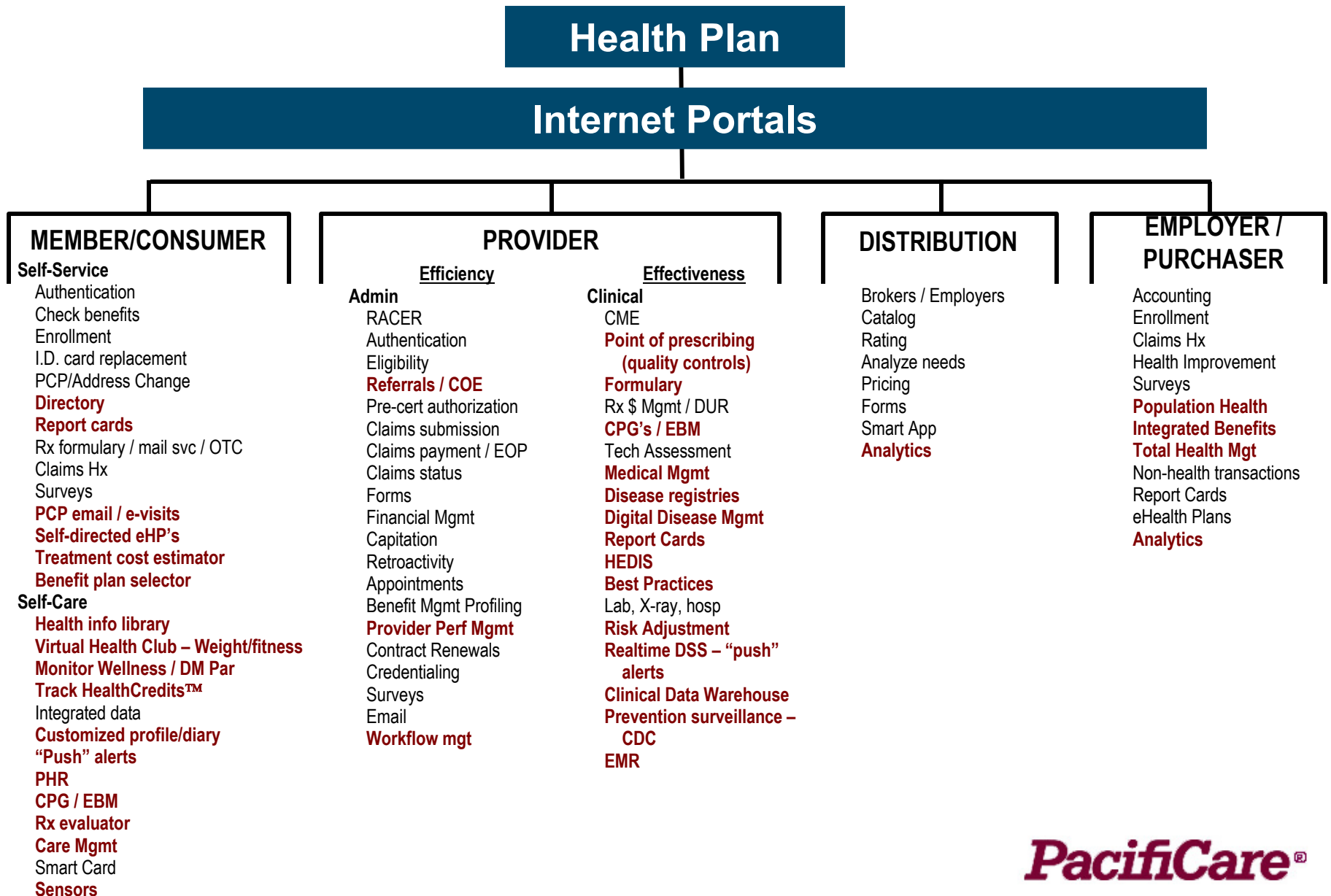
Power of PAAX

Utilization Summary Data

Condition/Disease Registry Data

Admits Acute	Days Admit Acute	Readmissions	Visits ER	Visits Office Med	Episodes	Deliveries	Deliveries CSection	Deliveries Complicated	Patients Diabetes	Patients Asthma	Patients COPD	Patients CHF	Patients Coronary Artery Disease	Patients Hypertension	PATIENTS CANCER	Patients Breast Cancer	Patients Arthritis	Patients Low Back Disorder	Patients Ulcers	Patients Affective Disord	Patients Depress Ex Major	Patients Epis Hysterectomy
465	2,526	75	711	18,723	7,229	6	2	2	217	57	45	72	84	203	234	75	102	107	7	37	84	14
331	1,504	34	408	13,092	5,212	0	0	0	248	28	65	85	148	197	195	0	75	70	10	16	33	0
2	41	0	4	6	24	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0
3	9	1	0	0	16	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1	1	0	1	4	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
13	132	6	6	6	19	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5	78	1	3	28	14	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0

e-Health Schema



“Between now and the holy grail of electronic medical records, we need to bridge that with as much useful, credible, relevant data derived from administrative data sets as possible. Self-reported data, chart-abstracted data is cumbersome, is subject quite frankly to gaming and manipulation, and requires a phenomenal amount of infrastructure, not just to collect the data, but to report the data, to assure inter-reader reliability from the data, and to audit the data. I think that the sooner we get to administrative data as the bridge to EMR, the better off we’ll be.”

*Sam, Ho, M.D., SVP, CMO
PacifiCare Health Systems
Aug 2004 World Congress
Boston, MA*

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