An Electronic Dashboard For Improving the Quality of Health Care and for Decreasing the Cost of health Care

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History

Stimulus For Dashboard Development

- Rising Health care expenditures
- Failure of existing methods to stabilize and reduce medical expense
  - Insurance
  - Government programs
  - Doctors and hospitals
  - Limited access provider networks
  - Disease Management Companies
- Lack of available information for precise medical interventions to improve health status improvement

History

Challenge

- Disparate systems
- Outlier management
- Business block management
- Care determined by benefits

- No leveraging of information
- Emphasis on process
- Emphasis on network discounts

Solution

- Single relational database
- Population management
- Individual client management
- Need for care is independent of benefits
- Leveraged information
- Emphasis on outcome
- Emphasis on Care Management

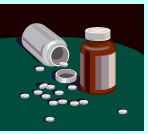
Algorithm Evolution

- Logic derived from medical practice standards
- Published US standards of care (ADA, AHA, other)
- Single flexible software program that allows multiple preventive health and disease states to be managed (“Excel” spreadsheet for Health)
- Technology-Driven “Dashboard”
  - Automated Integration of:
    - Claims data
    - Clinical data
    - Pharmacy data
    - Laboratory data

Care Management
Definition

- Care Management is the convergence of multiple medical tactics properly applied to specific populations including:
  - Stratification of medical risk in each population
  - Clinical guidelines
  - Wellness
  - Preventive
  - Disease management
  - Case management
  - Utilization review
  - Predictive modeling
  - Prescription drug management
  - Plan design

Computer System Integration of Claims Payment & Care Management



PHARMACY CLAIM

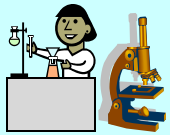
Drug
Dose
Doctor
Date
Cost

CLINICAL DATA

BP
Height
Weight

MEDICAL CLAIM

Diagnosis
Procedure
Date
Cost



LABORATORY DATA

Hgba1-c
Urine Protein
Electrolytes
Cost

TRIVERIS

DOCTORS
NURSES
STATISTICIANS
EPIDEMIIOLOGISTS
ADVOCATES

PLAN MEMBERS

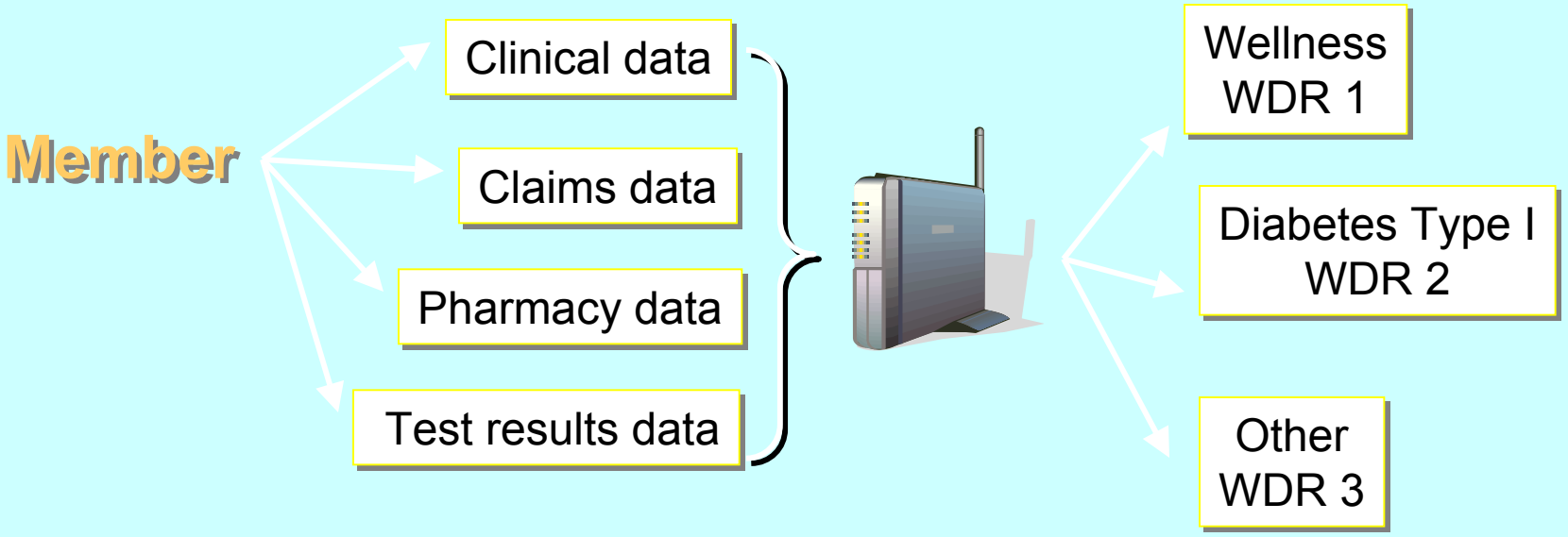
HEALTH CARE PROVIDERS

EMPLOYERS / INSURERS

Care Management

Health Improvement Tracking System

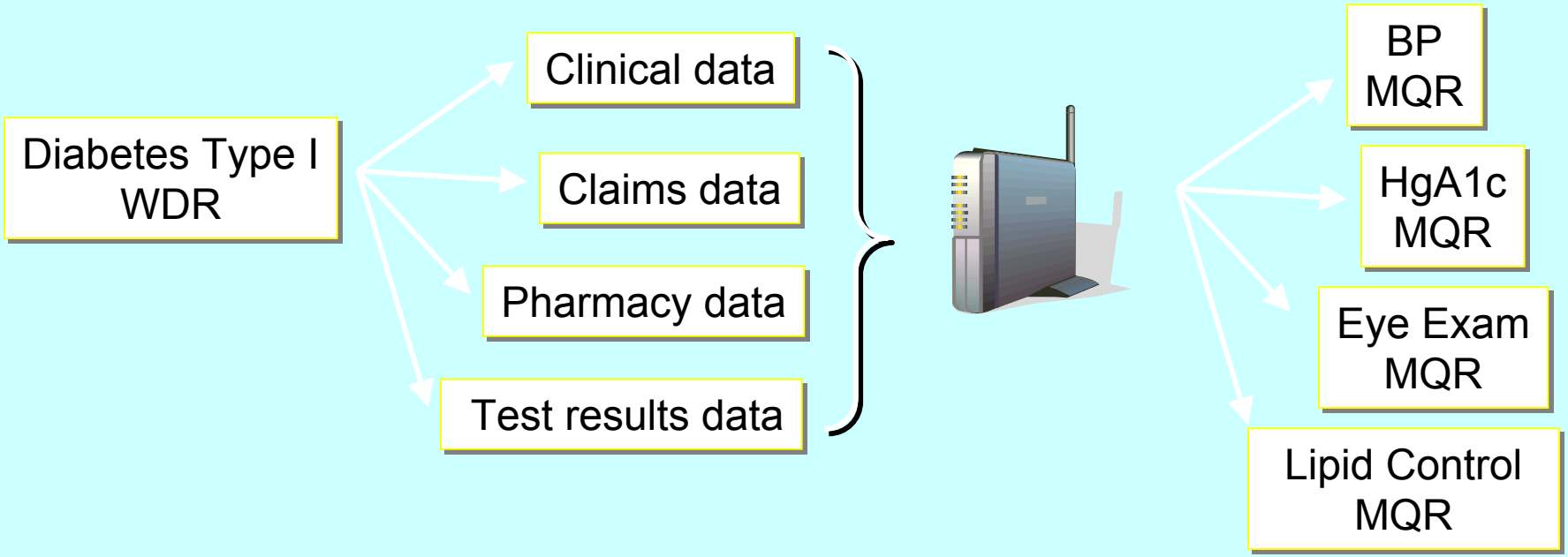
Step 1 Derivation of Wellness Disease Records (WDR)



Care Management

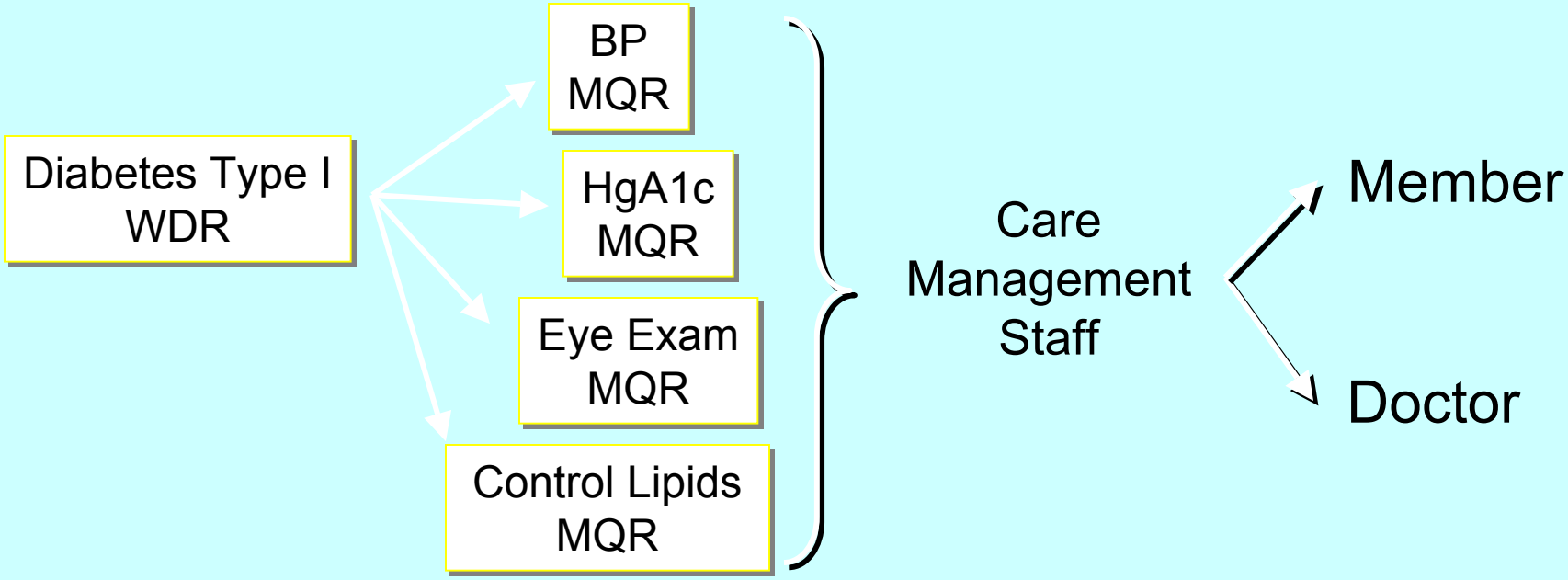
Health Improvement Tracking System

Step 2 Current medical care management compared to Minimum Quality Requirement (MQR)



Care Management

Step 3 Sharing information for action



Care Management

Dashboard Activities

- Preventive care
- Chronic disease management
- Acute and catastrophic case management
- Triveris communication to member and doctor

Dashboard Demonstration Slides

Results

Case Study

FEHBP Diabetic Patients
(01/98-09/2004)

	1998	1999	2000	2001	2002*	2003	2004
Patients	2,947	3,090	3,155	2,869	2,990	3,078	2,979
Claim PMPM	2.9	3.3	3.6	3.5	3.6	4.2	6.3
Median Age	68.6	68.8	69.4	70.3	71.1	71.3	71.6
HgbA1c Testing	30.4%	47.8%	48.2%	51.2%	61.1%	65.9%	81.0%
Hospital admissions per 1000 member yr	816	759	706	597	712	602	604
Bed days per 1000 member yr	5,594	5,135	4,571	3,932	4,838	4,509	4,984

* Un-immunized Influenza Epidemic

Improved Quality-Less Hospital Use-Lower Expense

Case Study

FEHBP Hypertension Patients
(01/98-09/2004)

	1998	1999	2000	2001	2002*	2003	2004
Patients	8,024	8,099	8,214	7,290	7,426	7,808	7,433
Median Age	68.1	68.8	69.6	70.6	71.3	71.4	72.0
Office Visits PMPM	0.54	0.59	0.64	0.56	0.57	0.56	0.62
ER visits per 1000 member yr	37	35	40	35	30	37	35
Hospital admissions per 1000 member yr	41	47	39	23	24	26	22
Bed days per 1000 member yr	220	238	167	119	127	157	140

* Un-immunized Influenza Epidemic

Improved Quality-Less Hospital Use-Lower Expense

Case Study

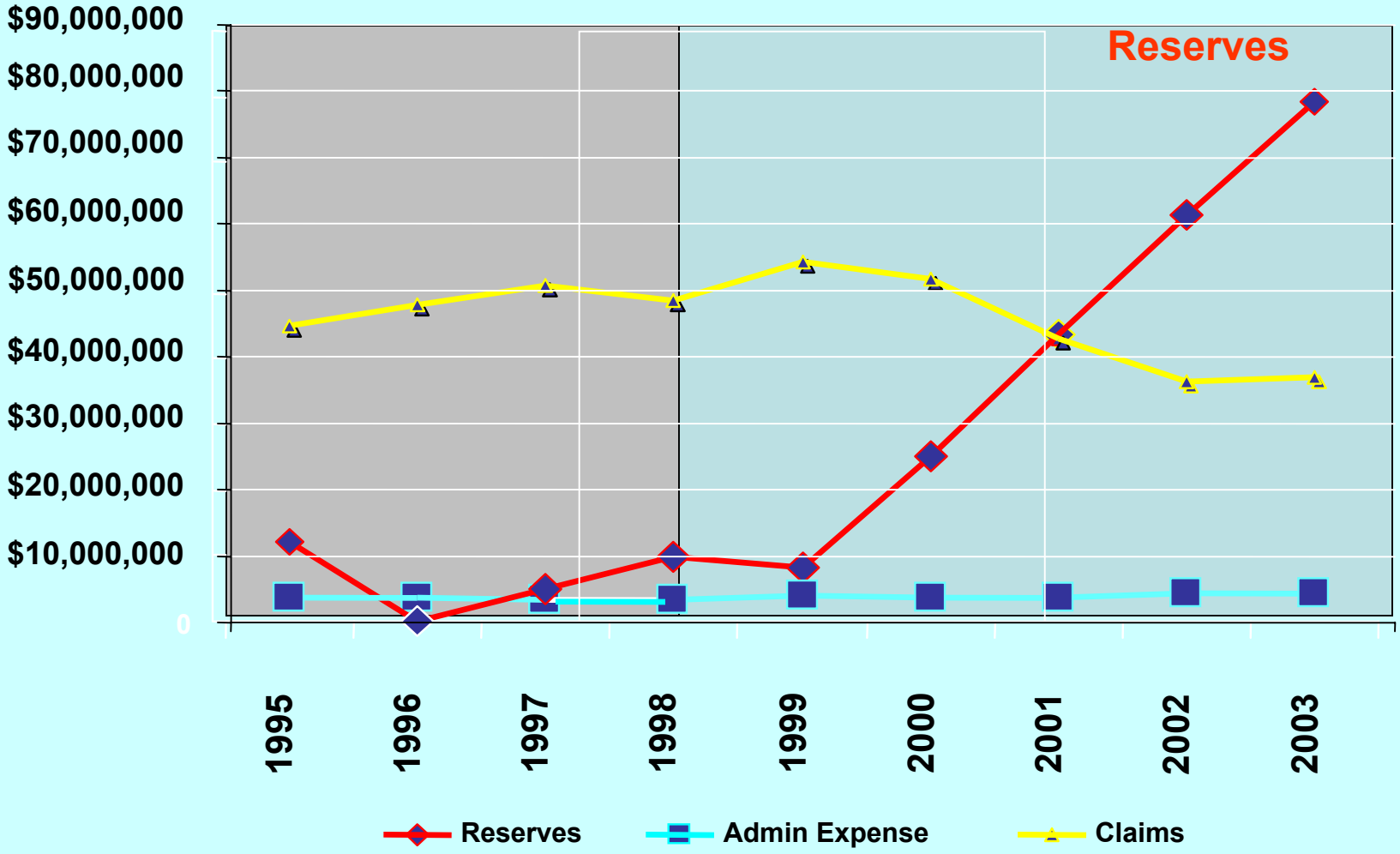
Chronic Renal Failure Patients
(01/98-09/2004)

	1998	1999	2000	2001	2002*	2003	2004
Patients	288	331	370	419	507	522	502
Claim PMPM	6.8	8.6	8.2	9.0	9.1	13.0	12.0
Median Age	74.4	75.5	75.6	76.4	77.6	77.5	77.4
Hospital admissions per 1000 members/ yr	2,063	2,058	1,732	1,626	1,963	1,507	1,548
Bed days per 1000 members/yr	22,559	19,329	14,004	13,797	15,830	14,461	9714

*** Un-immunized Influenza Epidemic**

Improved Quality-Less Hospital Use-Lower Expense

A Federal Employee Health Benefit Plan
1998-2003



Dashboard

Conclusion

- Makes care management possible
- Efficient
- Bonds doctors and patients and plan sponsors
- Improves health status
- Lowers plan expense