

# How to Develop a Comprehensive Integrated Healthcare “net” Strategy

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# Developing a “net” strategy

- “Net” strategies vs. business strategies enabled by the net.
- Business strategies - core competencies around which a series of processes that interact with customers.
- How can those processes (or internal processes that support) be improved using the technology of the net?
- How implement the strategy - create/outsource/partner?
- Gotta start - organization learning curve.

# Where are we ?

- There is tremendous variability in health care - i.e. “poorer” quality and higher costs
- Care is largely not managed for quality or cost
- Cost pressures will escalate - changes in population, drug and devices etc.

# Where are we- Current Strategies?

- Health care insurance is sold at market prices (to employers).
- Operating expenses = medical trend + administration
- Medical trend (loss ratio, % spent on medical care costs) cannot be managed so provider contracts are written in a way that the cost per unit service drops if the total units of service increase.
- Frustrated physicians resent interference with “autonomy” and being paid less and less for more.
- Hospitals see 2-2 1/2% increases in a fixed 3/12% cost increase world (i.e. 10 M behind to start)
- The three components (doctors, health plans, and hospitals) pursue zero sum game survival strategies.
- We will see some changes, sometime.



# Key Business Strategy

- Shape market or,
- The “bear” strategy

*Does closely follows work in the internet world?*

# Shaping the Market - *New Solutions*

- Create new revenue sources
  - 1/2 the health care \$'s are not “traditional” care \$'s.
- Care management
  - ?% of care \$'s are avoidable
- End-to-end overhead redesign
  - 40-50% of health care \$'s in overhead somewhere in the system.

# Managing Care

*Where is the opportunity?*

- How large is the variability?
- Inpatient costs of care vs. preventing care costs?
- Systems of care - What's done vs. where, when, how, and by whom?
- Prompts and reminders

# Rand / UCLA Health Services Utilization Study (HSUS)

- Population
  - Medicare Part B Claims Data
  - 13 Sites: Ark, Co, Iowa, Mass (2), Mo, Pa(3), SC, Northern Ca (3)
- Frequency Statistics
  - Numerator - 123 procedures
  - Denominator - population base

Chasin et al. N Engl J Med 1986;314:285

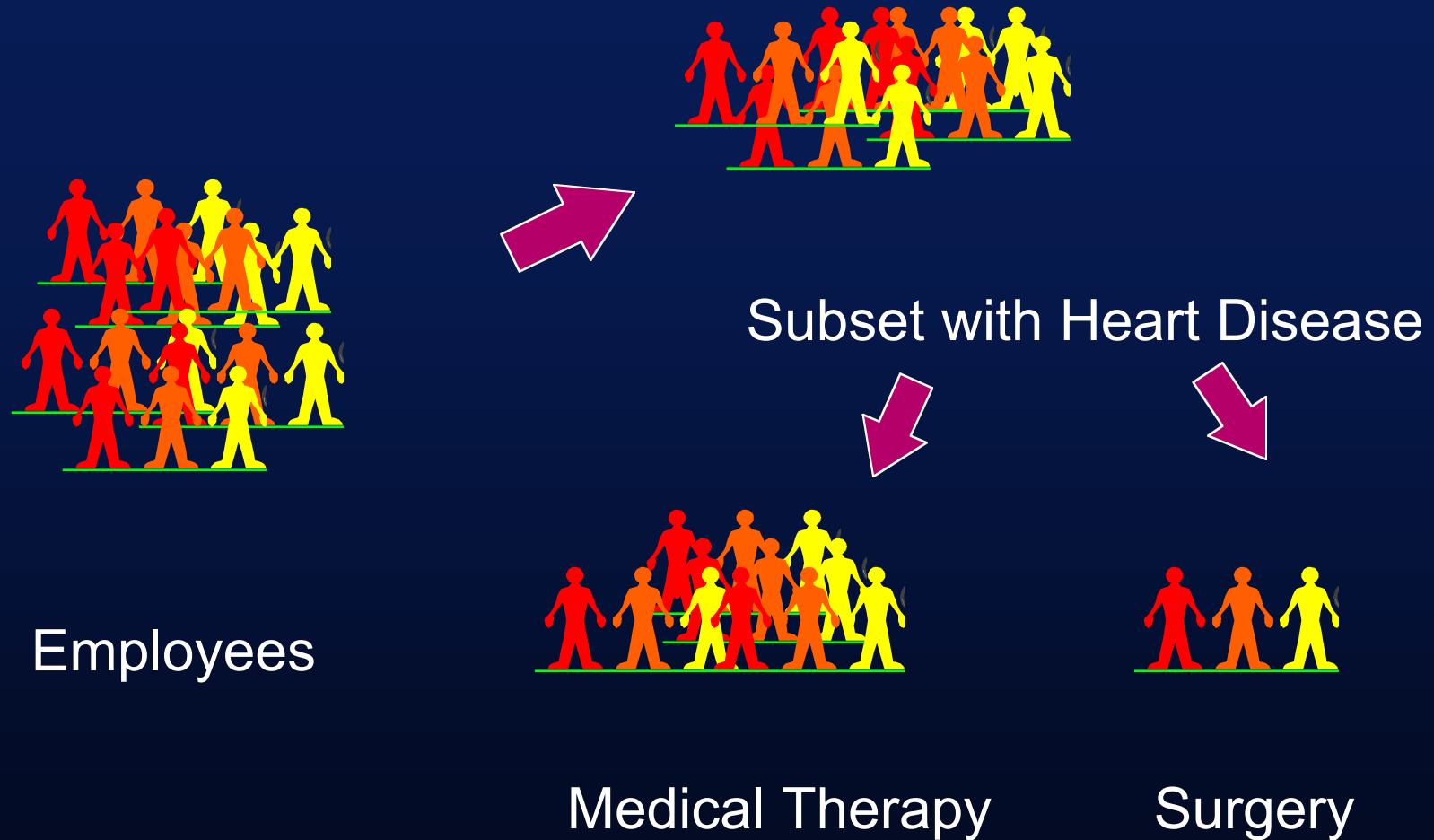


# Rand / UCLA HSUS Study

	Rates of Use (per 10,000)		
	Highest	Mean	Lowest
CABG (“greatest”)	23	13	7
Cath (“moderate”)	51	33	22

Chasin et al. N Engl J Med 1986;314:285

# Employee Health Care Costs

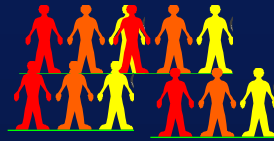
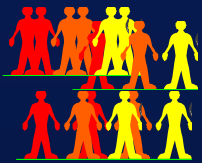


*Costs are due to whether the patient has surgery, and if so, the cost of surgery*

# Impacting on Costs

## Base Case

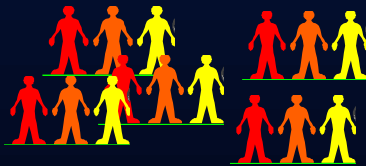
Total Population



10,000 Employees



Subset with Heart Disease

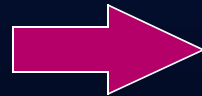


500 with CAD (5%)

493 - Medical Therapy  
\$500 each = \$246,500



Referred for CABG



7 referred to CABG  
\$38,725 each =  
\$271,075

Total Costs

\$246,500  
\$271,075

---

\$517,575



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# Impacting on Costs

Among 500  
Employees  
with CAD:

Change the  
CABG Cost  
(+20% )

Change the  
CABG  
Decision

Medically  
Treated  
Costs

N = 493  
\$500 x 493  
=\$246,500

N=493  
\$500 x 493  
=\$246,500

N=477  
\$500 x 477  
=\$238,500

Referred for  
CABG Costs

N = 7  
\$38,725 x 7  
=\$271,075

N = 7  
\$46,470 x 7  
=\$325,290

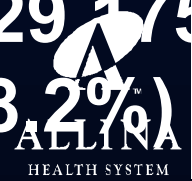
N = 23  
\$38,725 x 23  
=\$890,675

Total Costs

**\$ 517,575**

**\$ 571,790**  
**+10.5%)**

**\$ 1,129,175**  
**(+118.2%)**



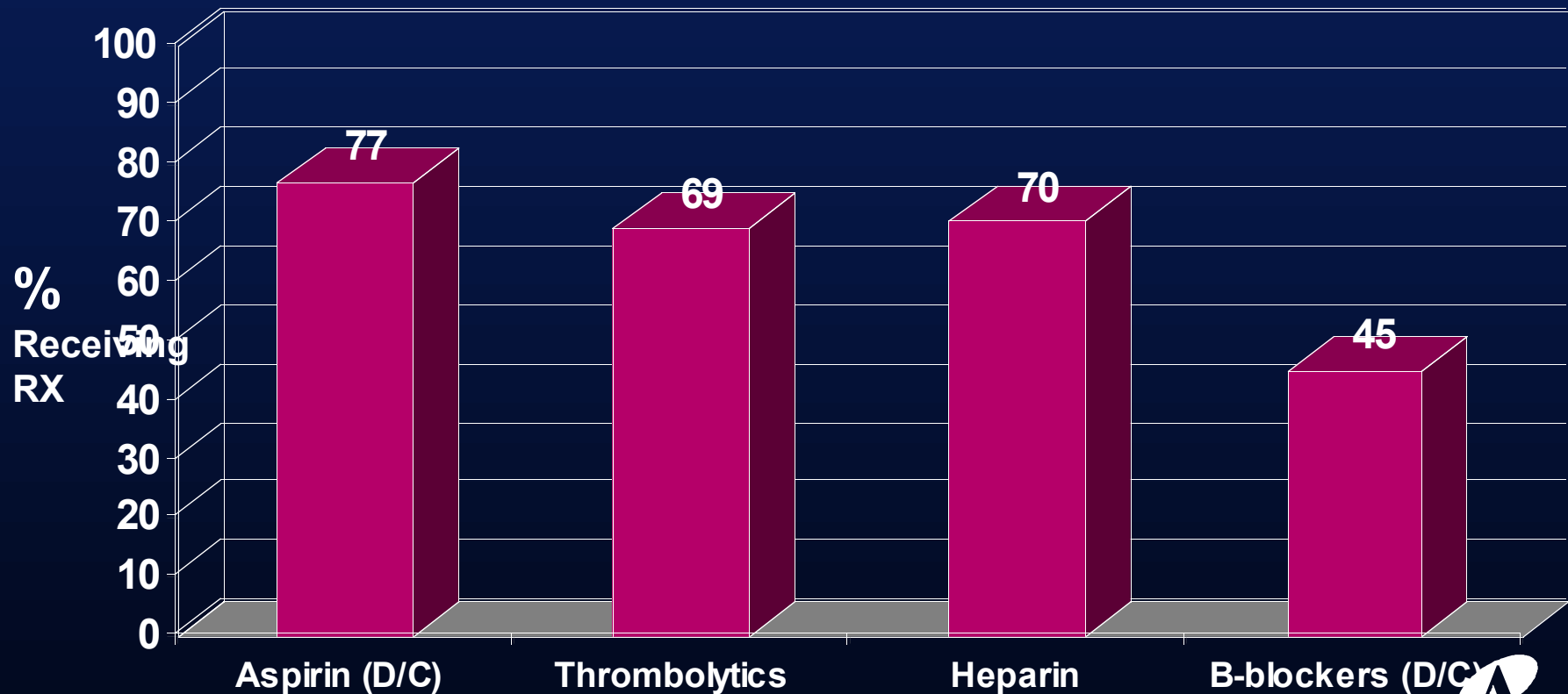
# Knowing what to do is not enough

## The Cooperative Cardiovascular Project

- 4 state HCFA pilot study (Alabama, Connecticut, Iowa, and Wisconsin)
- All Medicare admissions, principle diagnosis for acute MI, 6/92-2/93, N=18869
- All charts abstracted for specific data
- “Ideal” candidates identified without contraindications for recognized Rxs.

# Knowing what to do is not enough

## Variability in Practice - 1993



Cooperative Cardiovascular Project

- JAMA 1996;273:1509-1514



# MD decisions *or* System decisions

- As physicians we tend to focus on the problems of a specific patient as we encounter them in our practice.
- In this setting, knowing what to do is our principal focus.
- Knowing what needs to be done is different than knowing how it should be done.
- The “right” care is more than the “right” intervention.

# The “Right” Care *is*:

The “right” intervention,  
Done in the “right” way,  
By the “right” person,  
In the “right” setting,  
At the “right” time.

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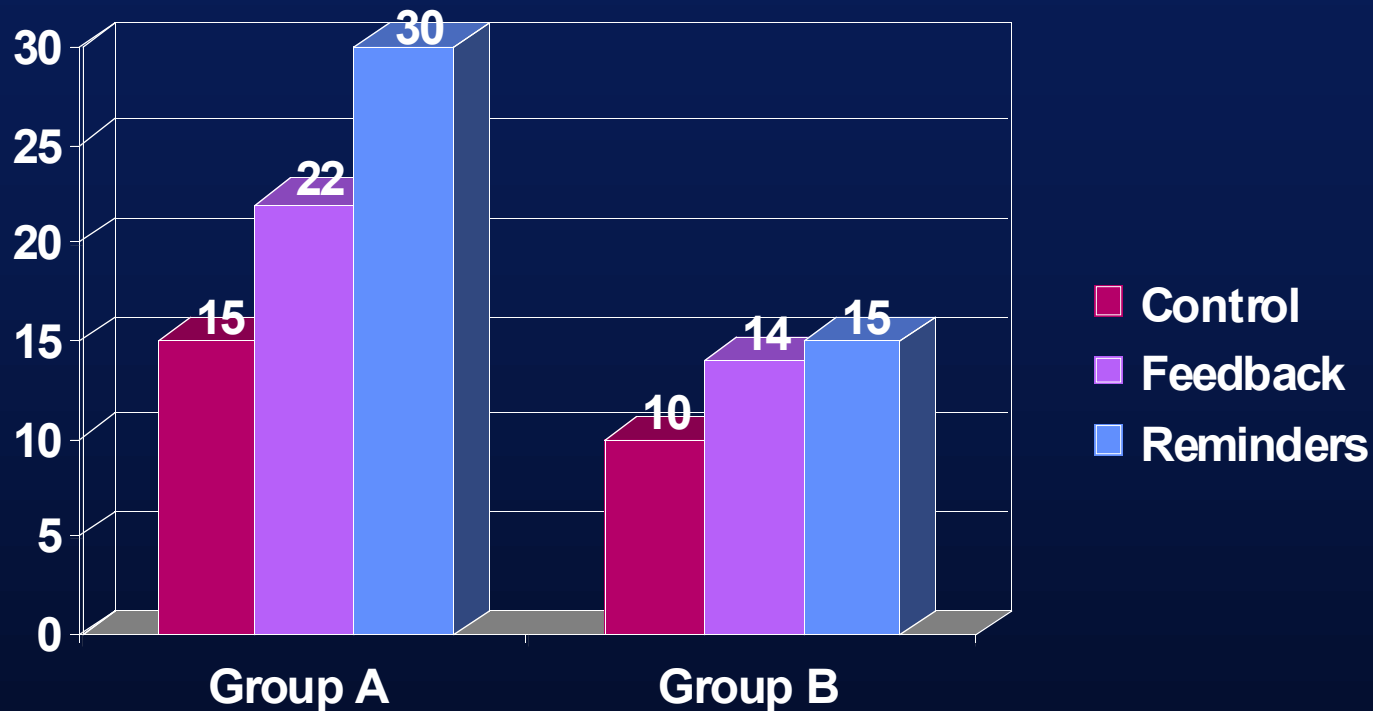
# Systems Thinking

*Treatment decisions often focus on the “right intervention”, but the patient outcome and cost are often more related to the system for delivering care and the environment in which the care is provided.*

*This is a “systems” view for providing care.*



# Feedback and Reminders



*The value of providing information as routine on-line reminders doubles the impact of monthly reminders, which is substantially better than no feedback on performance.*

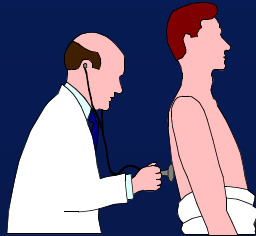
# The Internet in Care Management

- The internet will connect legacy systems throughout the health enterprise.
- The doctor's desktop
- The patient's workstation
  - The internet will connect the patients and the health care system.
  - The internet will make accessible informed patient decision making

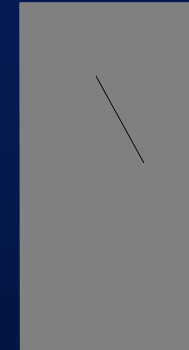
# Overhead redesign

- Supply chain management
- System costs?
- Should claim systems be used to improve care management or will the reverse occur?

# The Patient and the Health Care System



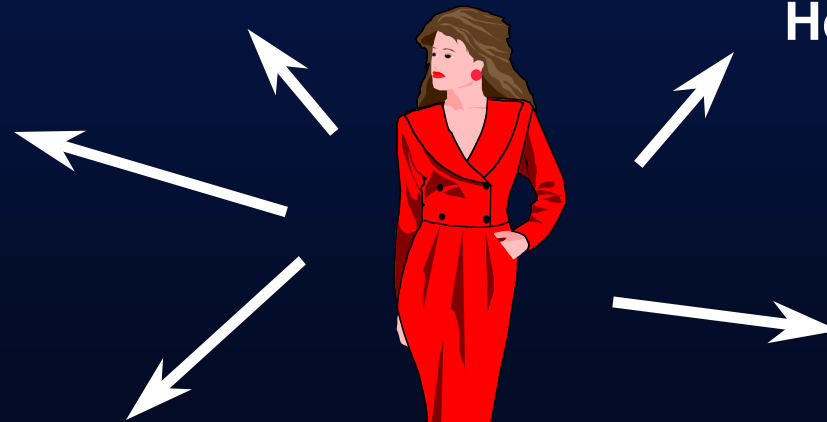
**Hospital**



**Health Plan**



**Pharmacy**



**Providers:**

- Primary Specialist
- Secondary Specialist
- Nurse clinicians
- Nutritionist
- Physical Therapist
- Physician's Asst.
- Alternative provider

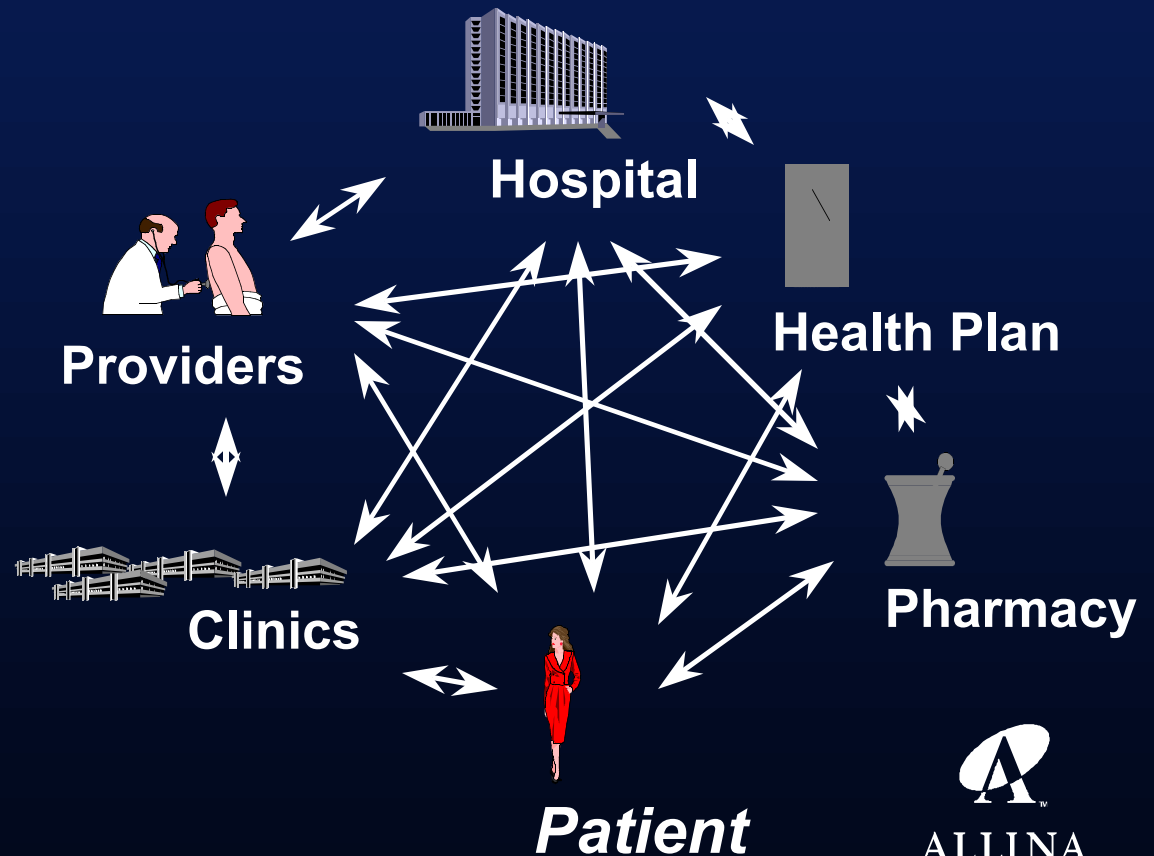


**Clinics**

**Patient**

# Improved Access and Efficiency

- Appointment scheduling
- Billing
- Processing
- Results reporting



# An Example - The Pt. with Diabetes

MW is a 46 year old WM on insulin therapy for Diabetes Mellitus. He goes to his primary MD complaining of blurred vision. The patient's blood sugars are not too bad but not ideal either. The patient is referred to the endocrinologist and ophthalmologist. The endocrinologist suggests home glucose monitoring and refers the patient for nutritional counseling. The ophthalmologist during the eye exam notes a refractive error that when corrected causes the blurred vision to resolve. He recommends that the patient get new eyeglasses or contacts.

# An Example - The Pt. with Diabetes

## What are the patient's concerns?

Is my blurred vision serious?

Does my insulin dose need to be changed?

How do I know my diet is working?

How do you do home glucose monitoring?

Does my insurance cover the doctor visits?

Does my insurance cover the nutrition visit?

Does my insurance cover eyeglasses or contacts? Which types?

What types of eye wear are best for people like me?

Does my insurance cover home monitoring ?

Do other patients with diabetes do the home monitoring?

What's the best way to check my blood sugar?

Are there any tricks to making this easy to do?

What's the real benefit in doing this?



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## An Example -

### The Pt. with Diabetes --Pt. activity log

- 4/15 realizes his vision is blurred, calls his cousin who's a nurse
- 4/16 calls primary MD for appointment
- 4/17 visits primary MD, blood drawn at office but he just ate
- 4/18 returns for blood drawing early am before eating
- 4/19 calls primary MD for blood sugar results
- 5/1 sees endocrinologist
- 5/4 sees the ophthalmologist
- 5/5 sees the nutritionist
- 5/9 sees the optometrist, likes soft contacts but not sure of cost
- 5/10 calls plan - contacts covered?, calls optometrist orders contacts
- 5/12 calls endocrinologist office, How do I do this home monitoring?
- 5/13 visits drug store for home monitoring equipment

## An Example -

### The Pt. with Diabetes -Pt. activity log (cont)

- 5/14 calls endocrinologists office - do I need the blood sugar machine, blood tape, or is the urine tape good enough?
- 5/15 purchases blood sugar tape strips from drug store
- 5/22 receives co-pay bill from primary MD
- 6/2 receives bill from endocrinologist
- 6/3 calls endo office - what do I have to pay?
- 6/4 calls plan - what do I have to pay?
- 6/8 receives bill from ophthalmologist
- 6/9 calls plan - what do I have to pay?
- 6/10 talks with cousin. Learns about better control reducing complications, learns about pump?
- 6/11 calls primary care doctor's office, what do you think of the home monitors, and the insulin pump, are either of these right for me?

## An Example - The Pt. with Diabetes --Pt. activity log

### Summary-

6 Provider office visits - 4/17, 4/18, 5/1, 5/4, 5/5, 5/9

7 Provider office calls - 4/16, 4/19, 5/10, 5/12, 5/14,  
6/3, 6/11,

3 Plan calls - 5/10, 6/4, 6/9,

2 Cousin calls - 4/15, 6/10,

Missed days from work (all or partial) - 6

Time for problem resolution - 1 month plus ordering time  
for contacts

Overall satisfaction with patient experience?

Administrative processing costs?

Time for copay request - 30-45 days

# An Example - The Pt. with Diabetes

## Pt. activity log - Revised

4/15 realizes his vision is blurred, calls medformation who schedules visit with primary MD on 4/16, tells pt. to hold insulin and fast in am.

4/16 visits primary MD, blood drawn at office, copay collected, referred to endocrinologist, ophthalmologist for same day, copays outlined. Blood sugar results called to patient, nutritionist visit added to time for endocrinologist.

4/24 sees endocrinologist, nutritionist, sees the ophthalmologist, home monitoring discussion started, copays collected.

4/26 sees the optometrist, likes soft contacts, optometrist tells pt. plan covers and orders

4/26 pt . calls medformation for home monitoring advise, plugged into discussion group, starts with blood sugar tape strips, in discussion group learns about pump and impact of tight control

# An Example - The Pt. with Diabetes --Pt. activity log Revised

## Activity Summary

- 3 Provider office visits - 4/16, 4/24, 4/26,
- 0 Provider office calls
- 0 Plan calls
- 2 Medformation calls
- 0 Cousin calls

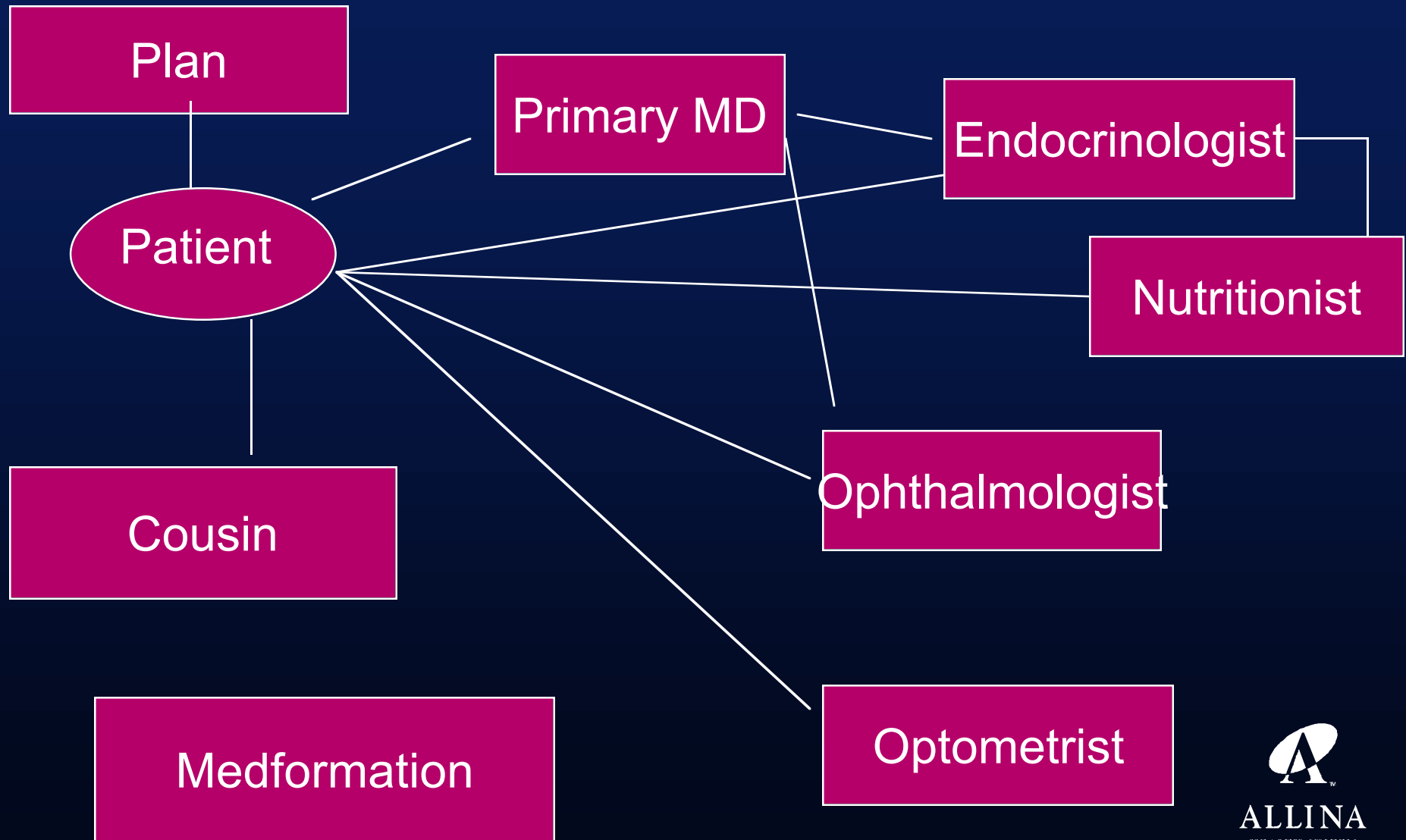
Missed days from work - 3 (all or partial)

Time for problem resolution - 11 days

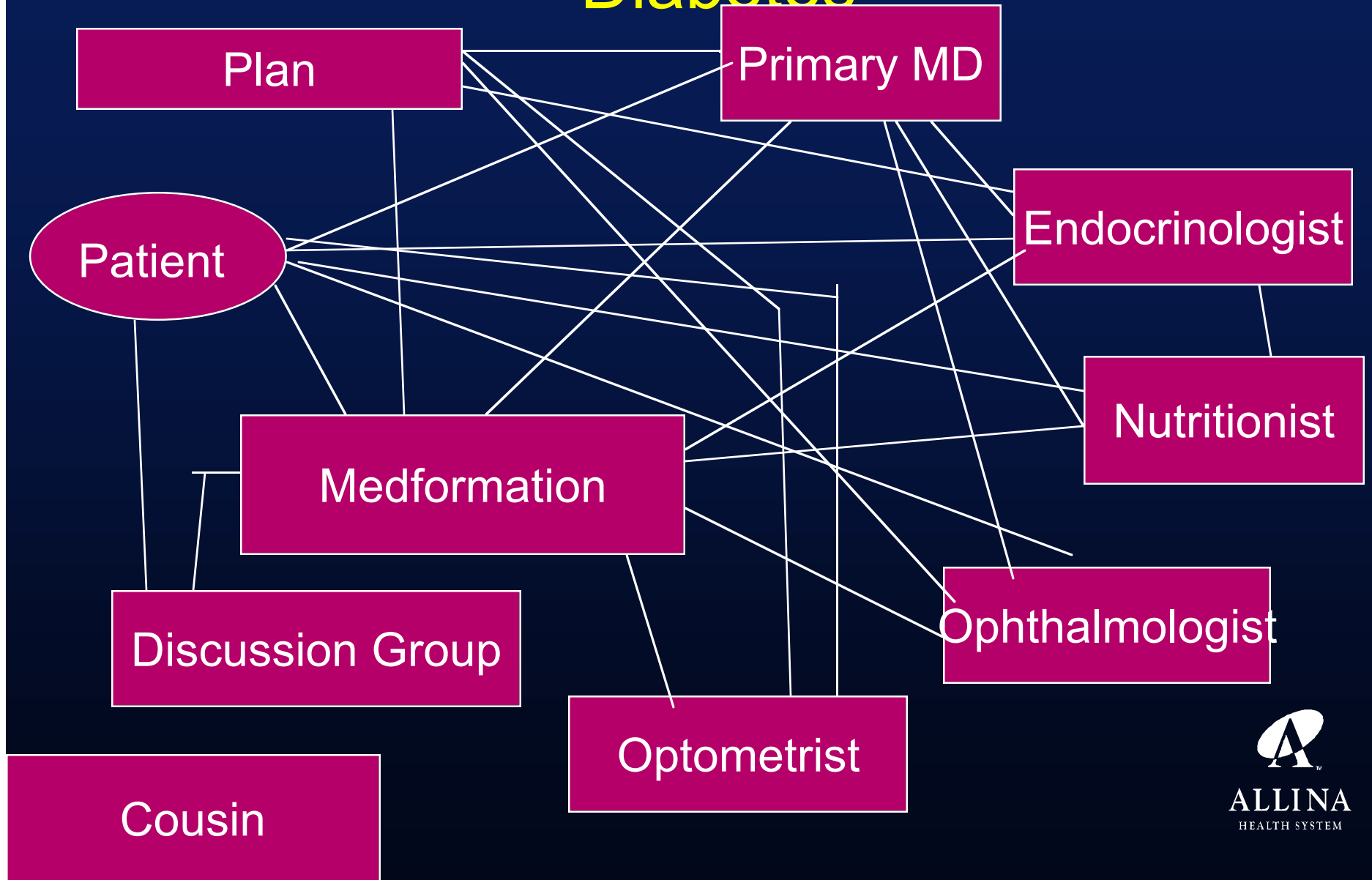
Copay billing request time - 0 days

Overall satisfaction? Administrative costs

# An Example - The Pt. with Diabetes



# An Example - The Pt. with Diabetes



# The Internet - What's new

- Speed -
  - Bandwidth continues to increase
  - T1 speeds (50x 28.8 modem) at home by year 2000  
(adsl, vdsl, cable modem, satellite)
- Security -
  - VPN (virtual private network)
  - Digital certificates
- Convergence
  - PC, telephone, TV, palm pilot

# Internet Strategic Business Competencies

- Member/Patient informed decision-making
- Physician decision-making and clinical information access
- Strengthening the patient/physician interaction
- Operational efficiency

# Allina Internet Uses - Intranet

- Uses internet technologies to more cost effectively support business processes
- Examples
  - Materials management
  - The Knowledge Network
  - Desktop management

# Allina Internet Uses - Supporting the Member/Patient at Home

- Improving access and efficiency and improved decision making by members and patients at home
- Examples
  - Allina.com
  - Medica.com
  - Medformation.com

# Allina.com

## Target Audience

- Patients
- Health care professionals
- Key influencer's
- Media

## Key Purpose

- Show Allina Health System's scope of services
- Provide information and transactions unique to Allina Health System constituents



# Medica.com

## Target Audience

- Members
- Employers
- Brokers
- Network Physicians

## Key Purpose

- Provide information and transactions unique to Medica constituents
- Value-add services to support retention strategies

# Medformation.com

## Target Audience

- General health care consumers – primary focus on women

## Key Purpose

- Provide health and medical information, support and service for consumers here in their community
- Revenue generating



## A Walk Through the Web

Symptoms & Conditions | Stay Healthy | Pharmacy | Doctors | Shop  
News | eMagazines | Interact | My Health | Hospitals & Clinics | Links

For a Medical Emergency Call 911

Wednesday May 19, 1999

Help

  **Medformation.com**  
your community health resource

Search  [Go](#)

### Cooking Lite Has Heavy Impact

Chef Georgio Malichiem has received high praise for his extensive collection of specialized recipes for diabetics. [more](#)



### Twin Cities Weather

42°F  
51% relative humidity  
Chilly, Passing Clouds  
High Pollen Count  
*(Pollen Content sponsored by Allerga)*  
[Your Local Conditions](#)

### Health Headlines

[Weather Creates Additional Emergencies](#)  
[Hillcrest Science Fair Includes Scholarship](#)  
[Flu Vaccine Really Works in Saint Cloud](#)  
[Germs cause disease in Grand Rapids](#)

### Healthy Tip

#### Wash Fruit & Vegetables

Wash all fresh fruits and vegetables at least 20 seconds under running water. Even if they are sold as 'pre-washed', you want to be sure you are removing any residual fertilizers, pesticides and herbicides which may have remained on the items.

### Featured Tab **My Health**

My Health tells you about your health and how you can improve it. We ask you a bunch of questions and then tell you to stop smoking, exercise more and eat more fruits and vegetables.

### Low Back Pain

got you down?  
**Free Consultation**  
Low Back Care Center  
Abbott Northwestern  
Hospital

### Children With Diabetes

On-line Chat with  
**Dr. Helen Gillium**  
Pediatric Endocrinologist  
Wed, Oct. 6, 7 p.m. CDT  
For Parents & Children

## HEADtalk<sup>SM</sup>

help with your migraine

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*One more story*

