How will the Internet Change the Management of Chronic Diseases?

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Consumer-driven healthcare

- design and selection of plans
  - redesign of insurance
- selection of provider
- diagnosis
- decision support
- health and disease management
- communications and support

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Patients and consumers = the real care managers

Employer

Home Care

Physician

Library

Health Plan

Laboratory

Hospital Team

Family and Friends

Case Manager

Affinity Group

Patient

The first three stages of managed care made everyone involved irritable...

1 Discounted Fee-for-Service

2 Fragmented Management of Care

3 Virtual Integration of Delivery Systems

   ...all manage <u>providers</u>, not patients

   The fourth stage of market evolution reintroduces the human element...

4 Supporting patient self-management of care

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"Packy & Marlon" / ClickHealth

"Good Morning, Marcia…"

- *telephones*
- *cable*
- *TVs*
- *home computers*
- *PDAs*
- *cell phones*

…talking walls, satellite receivers on your belt, and other Dick Tracy features

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Patients as problem-solvers:

Stanford Arthritis Clinic Program:

- ◆ 18-20 % decrease in pain

- ◆ increased satisfaction

- ◆ 4 year follow-up:
  - disability   9% greater
  - pain   20% below trend for disability
  - physician visits   42% fewer

Holman et al 1985

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Alere.Com: heart failure program

Sam steps onto scale. "Good Morning, Sam." Scale reports weight, sends over web, reports progress & gives tailored Yes/No survey. Takes ~20 seconds

Sam's nurse reviews symptoms, provides assistance or notifies Sam's MD.

MD receives alert reports, adjusts Rx, revises surveys or initiates a visit.

Events	Monitored	Standard
ER visits	1	10
6 mo hosp	10	17
Total hosp	13	23
Deaths	6	3

*Presented at the 1998 American Heart Association meeting. Reprinted with permission of the authors.

Large cost savings in emergency visits, hospitalizations.

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Resolution Health Strategies - for error reduction and improving medical management

Supplies

Reports

Best Practices

Schedule

Resolution Health combines pharmacy (PBM) and claims/encounter data to generate exception reports

↓

Physicians receive 'yellow stickies' for the medical charts alerting them to recommended changes in medication.

↓

Rx change

Patients access information on **website:** current medications, diagnosis, disease management, and changes they should consider.
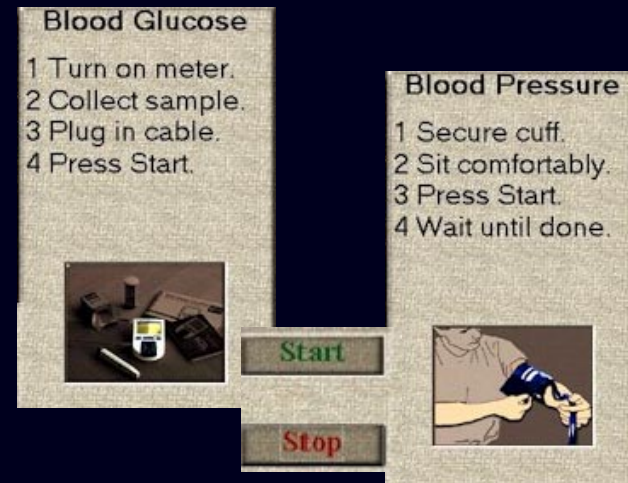
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Cyber-care.Net: electronic house calls

Electronic House Call terminal provides 2–way, interactive video and voice connection with caregivers or patients on demand from home.

Both parties can initiate calls 24x7 by touching phone icon. When provider isn't available, system triages to back–up MD or nurse call center. All providers can access patient record online.

Blood Glucose
1 Turn on meter.
2 Collect sample.
3 Plug in cable.
4 Press Start.

Blood Pressure
1 Secure cuff.
2 Sit comfortably.
3 Press Start.
4 Wait until done.

Start

Stop

A wide range of sensor data can sent over web. Sensors can be controlled by either party. Online tools for tracking patient data and disease management.

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Creating new roles

Manager
- *useful 'segmentation'*
- *behavior change*
- *tools and platforms*
- *expectations, measurement*

Coach
- *identify leaders, groups, bring them together*
- *introduce tools, support implementation*
- *coach for individual needs*

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New communications →
new competencies

- Physicians in a bind:
  - 700 million doctor visits / year
  - 50 - 80% concern problems the physician can't remedy

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Diabetic patients report their needs - work/life support

- Peer support
- Record-keeping
- Continuous education and *reinforcement*
- Menu planning
- Monitoring of medical advances
- Education of family, co-workers, friends
- Juvenile diabetes: children's activities
- *Clinical advice and questions answered*

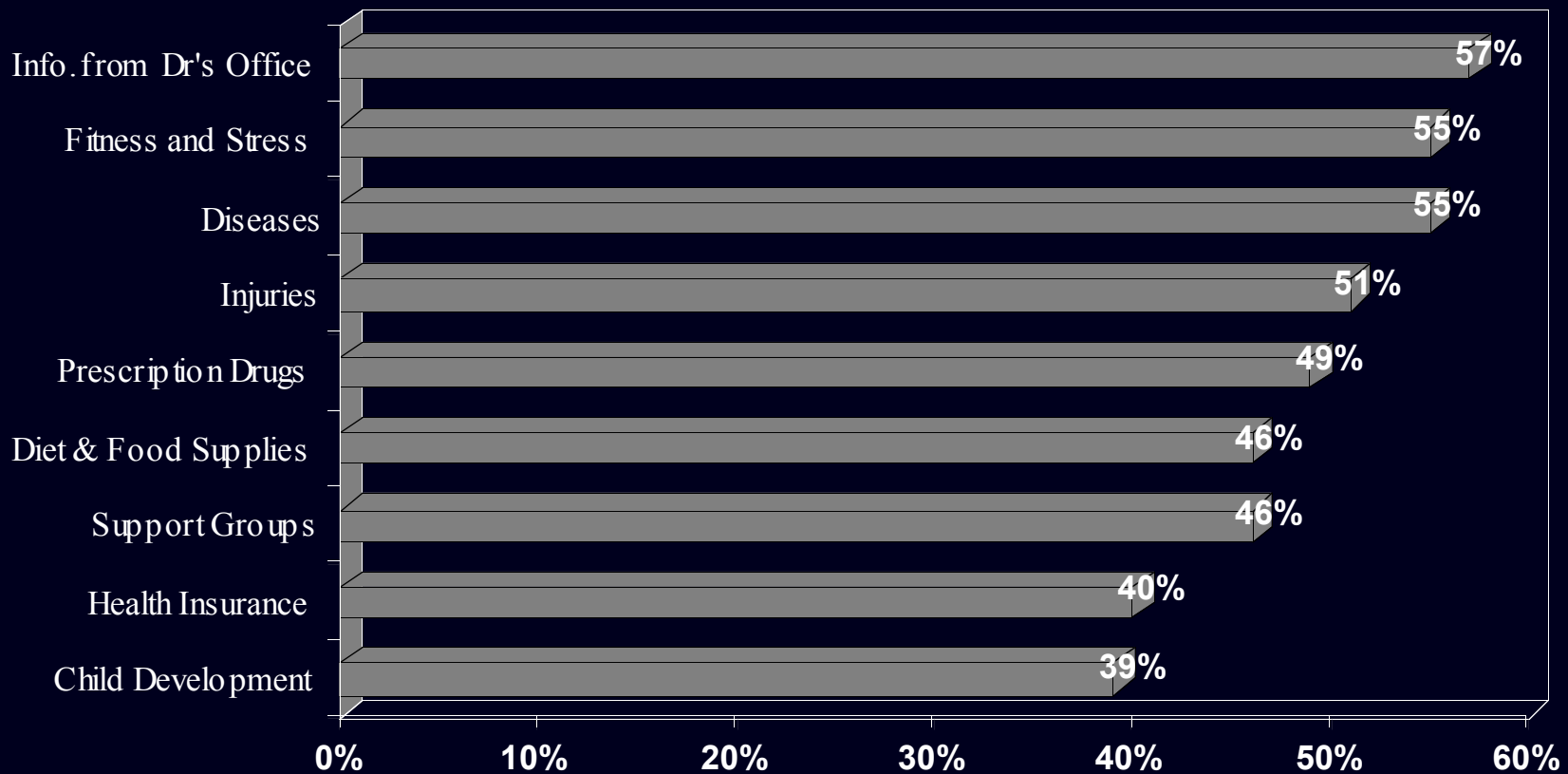Institute for the Future

Consumers worry, hope ...

- 61% of consumers and 52% of employers say electronic services could depersonalize health care,

  yet

- 44% of consumers say that *electronic information may be a satisfactory replacement for face-to-face contact*

BCBS Minnesota Survey

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But they can't get what they want…yet.

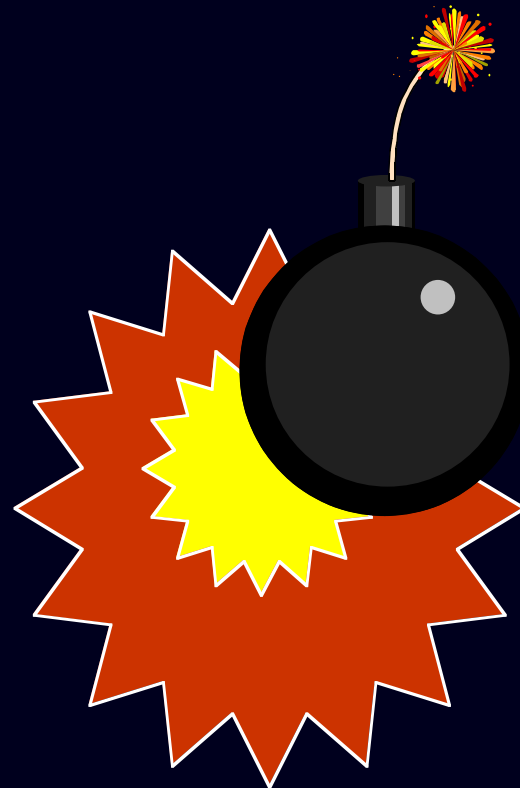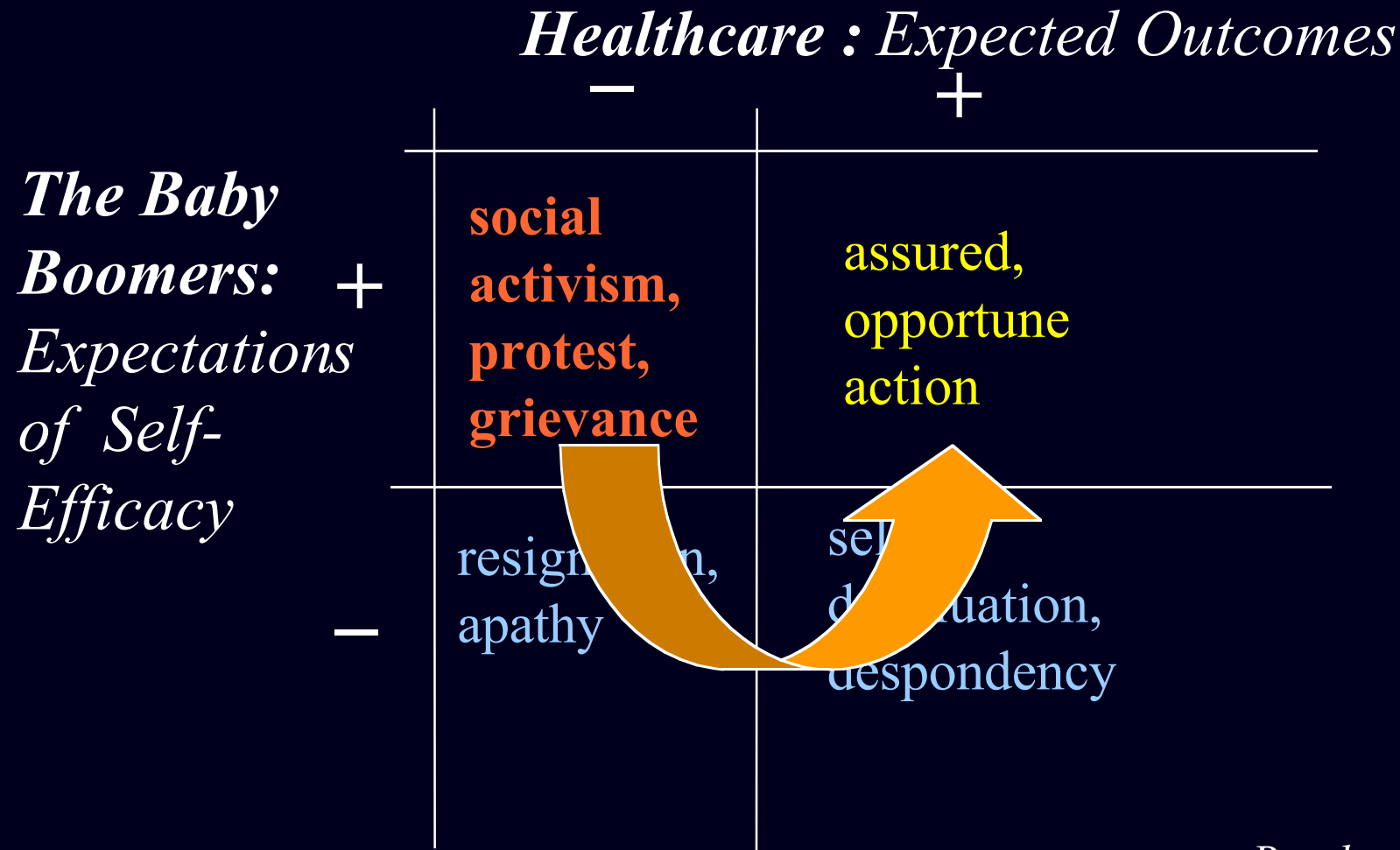| Category	Percentage
Info. from Dr's Office	57%
Fitness and Stress	55%
Diseases	55%
Injuries	51%
Prescription Drugs	49%
Diet & Food Supplies	46%
Support Groups	46%
Health Insurance	40%
Child Development	39%

Source: Find/SVP

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Healthcare will be up-ended as new technologies:

- unleash knowledge

- form communities

- influence behavior

Baby boomers expect a *LOT* ...

Healthcare : Expected Outcomes

$-$ $+$

The Baby Boomers: $+$
Expectations of Self-Efficacy

$-$

	$-$	$+$
$+$	**social activism, protest, grievance**	assured, opportune action
$-$	resignation, apathy	self-devaluation, despondency

Bandura 1982

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The great gamble for employers:

Under defined contribution

- will consumer chose wisely?

- will costs and productivity suffer?

- the rise of consumerism seems inevitable -

- how can we best prepare for this?

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# So what are the levers? How do we move consumers *faster* ?

- encourage disruptive technologies for *CARE --*
  - cheaper and/or more convenient
  - address consumer wants
  - target peripheral markets
  - leave the leviathans sleeping....
- *examples:*
  - ClickHealth, Health Hero
  - Resolution Health Strategies, Alere

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So…
encourage disruptive technologies

- cost-conscious demand
  - defined contribution
  - performance-based competition
  - *Paradigm Stall* conclusion and support
- individual co-design of benefits packages
  - re-structuring of insurance
  - consumer shared risk
- individual co-design of care itself

catastrophic

chronic disease

maintenance

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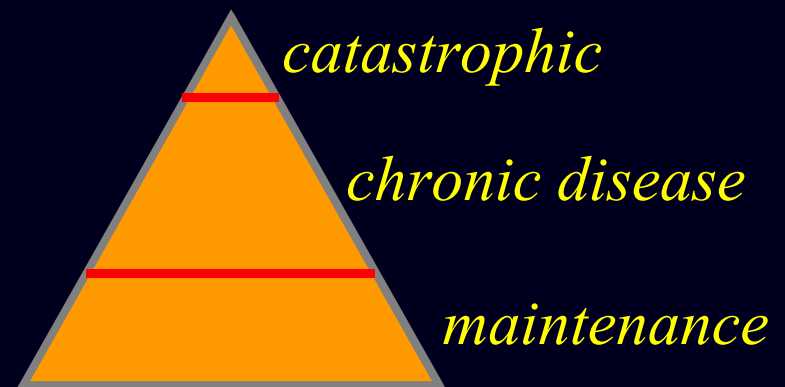
Why? Because disruptive technologies empower consumers, and ...

- consumers want it

- medical evidence supports it

- it's cheaper and easier

- it can even help address the digital divide - and the health care divide

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And prevent 'mural dyslexia'...

No room for the faint-hearted ...

The only things in the center of the road are yellow stripes ... and dead armadillos.

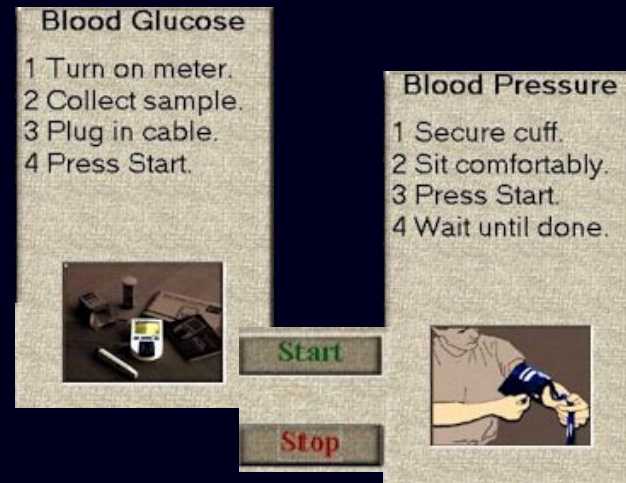*Jim Hightower*

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- Blood Oxygen
- Blood Pressure
- ECG
- Spirometry
- Stethoscope
- Temperature
- Weight

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