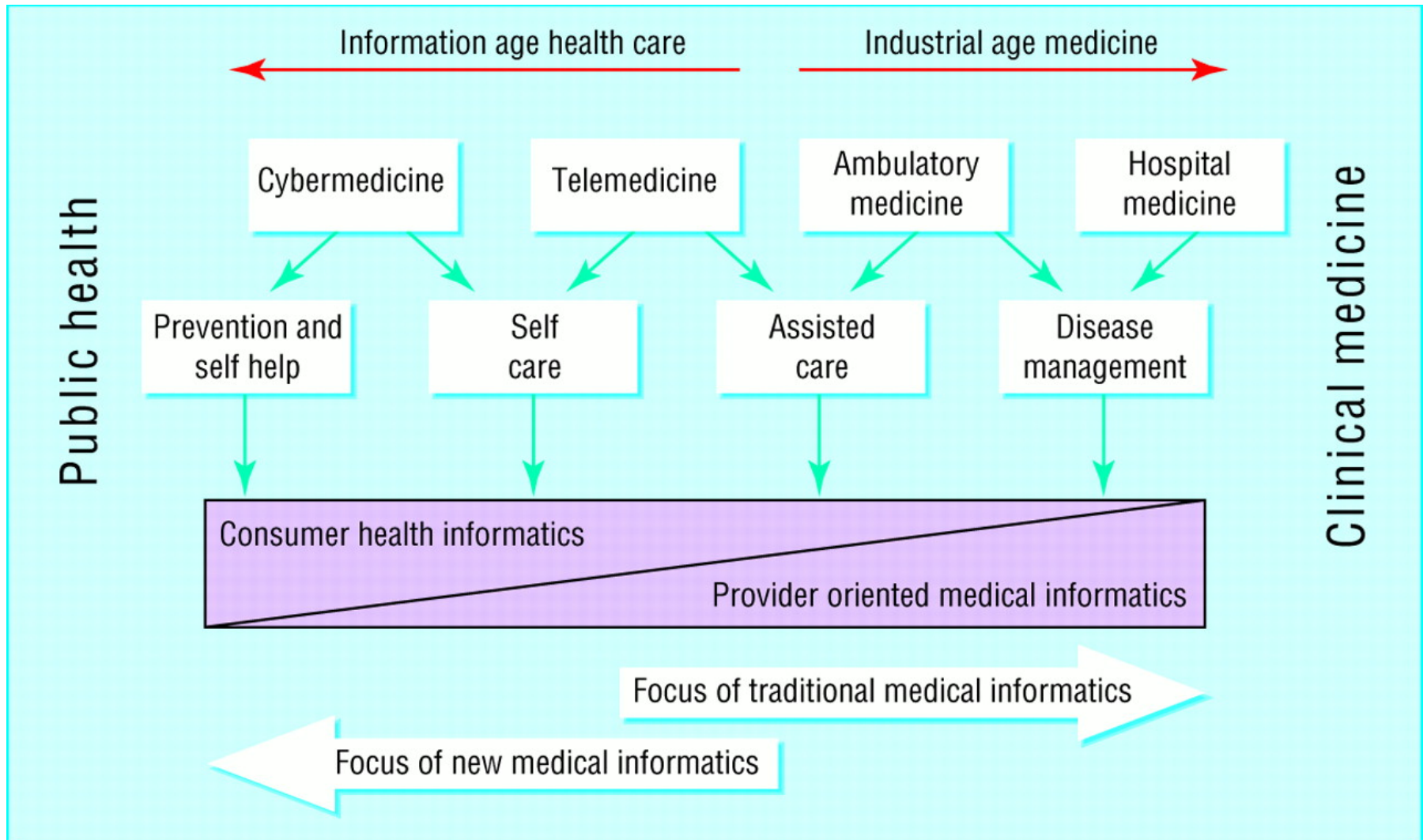


CONSUMER HEALTH INFORMATICS (CHI)

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The focus of traditional medical informatics is shifting from health professionals to consumers



Consumer Health Informatics

- Branch of health informatics that:
 - ✓ Analyzes information needs of consumers
 - ✓ Studies and implements methods of making health information accessible to consumers
 - ✓ Integrates consumer preferences into health care information systems

- ✓ Integration of consumer health information and information technology in an environment of shared healthcare decision-making that supports effective self-health action.

Lewis, D. & Friedman, C. (2002). Consumer health informatics. In M.J. Ball, K.J. Hannah, S.K. Newbold, & J.V. Douglas (Eds.). *Nursing informatics: Where caring and technology meet (3rd ed.)*. New York; Springer-Verlag.

Consumers?

- All persons, sick or well, who seek information and take action in accord with personal preferences, life situations and individual health goals.
- Broader than “patient “ – includes the well and caregivers
- Very diverse group

Empowered Consumers

- Empowerment: Granting of power to a dependent group or enhancing an individual's ability for self determination
- “a social process of recognizing, promoting and enhancing people’ abilities to meet their own needs, to solve their own problems, and mobilize the necessary resources in order to feel in control of their lives” (Gibson, 1991)

Brennan&Safran.Chapter 2 Empowered consumers.
In: Lewis, Eysenbach, Kukafka, Stavri, Jimison. Consumer Health Informatics
Springer, 2005

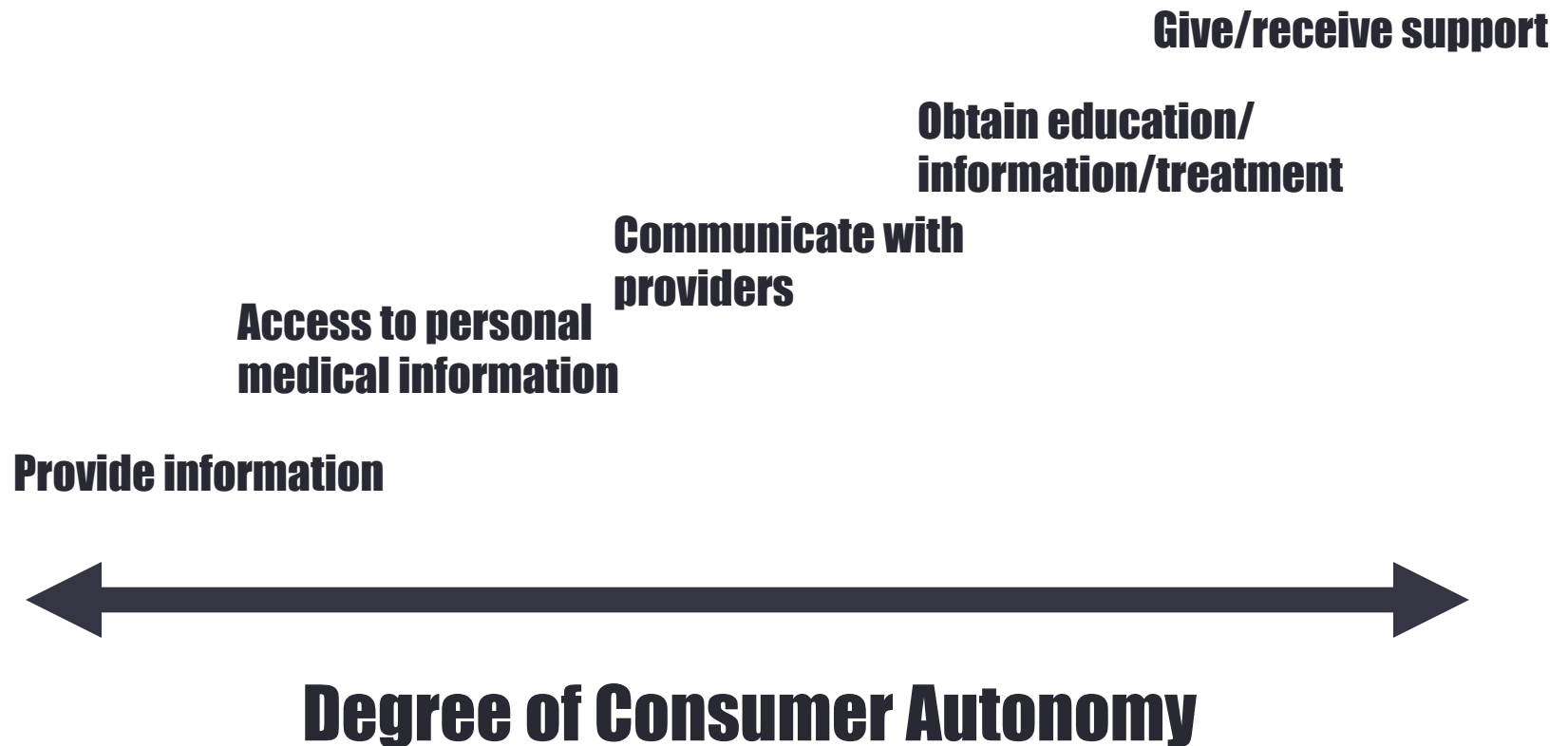
Empowered Consumers

- Consumer Health Informatics applications support the ideology of empowered consumers (a power balance in the patient-health professional relationship) by: e.g
 - ✓ Informing about health concerns
 - ✓ Assisting in finding others with similar concerns
 - ✓ Assisting in navigating the health care system
 - ✓ Access to clinical records and personal care management tools.

History of CHI

- Consumer movement of 1970s
 - Increased demand for information
 - Greater participation in “medical” decision making
- Prominence of “self-help” phenomenon of 1980s
 - Huge increase in health information for lay audience
- Widespread use of the Internet
 - Increased dramatically throughout 1990s

CHI Continuum



What is Consumer Health Informatics

- Branch of health informatics that:
 - Analyzes information **needs** of consumers
 - Studies and implements methods of making health information accessible to consumers
 - **Integrates consumer preferences into health care information systems**

Is cyber medicine killing you?

So viel Information war nie

PS 16.04 - Med doch sind Informationsar oft die weniger versorgten Patienten. Auch HD-Befürworter sollten mehrmals mit dem Mediziner sprechen.

Wie eine Meta-Analyse der Cochrane Collaboration zeigt, ist der informierte Patient nicht unbedingt der vernünftigste Patient. Das ist

Publiziert: 15. Januar 2004 17:00

Sjúka bíla sjúkara nár de hártar kunsköp på nätet

Heilbrigðisráðgjafi hefur ákveðið að gefa sjúklingum ráðgjöf um sjúkdóm og sjúkdómshandlingar. Þetta er einn af hálfum af því að sjúklingar eru oftast ekki með sjúkdómum og eru ekki með sjúkdómum. Þetta er einn af hálfum af því að sjúklingar eru oftast ekki með sjúkdómum og eru ekki með sjúkdómum.

Failure Of Internet Health Advice Questioned

A University College London study suggests that many people with chronic disease should not rely on the internet for health advice.

BBC NEWS
Warning on internet health advice
People with chronic diseases should think twice before relying on the internet for health advice, research suggests.
A University College London study found many should be in a bit of a quandary if they had simply returned to their doctor's surgery.

Fears over health 'cures' on the web

Patient, don't try to heal thyself

Logging on can make you sicker



Sympatico News
Internet-based health information may be hazardous: study
Last updated Nov. 14, 2004 10:52:00 PM
A 2003 study of people with chronic diseases found that many people who use the internet to get health advice are not getting the right advice, according to a new study.

Click To Get Sick?

People who get medical advice from the Internet actually get sicker, a study shows.

Nov. 15, 2004
There's a warning sign for people who use the Internet to get health advice. A new study shows that people who use the Internet to get health advice are not getting the right advice, according to a new study.

Health On the Net Foundation
Internet makes us sick
A 2003 study of people with chronic diseases found that many people who use the internet to get health advice are not getting the right advice, according to a new study.

Web Not Always Safe Health Source for Some
Warning over bad health advice online
A 2003 study of people with chronic diseases found that many people who use the internet to get health advice are not getting the right advice, according to a new study.

People who use their computers to find health information often wind up in worse condition than if they had listened to their doctor

Internet-based health information may be hazardous: study

Too much information bad for your health, study shows

Study: Internet health advice can be dangerous

BMJ 1997;314:1875 (28 June)

Information in practice

Reliability of health information for the public on the world wide web: systematic survey of advice on managing fever in children at home

Piero Impicciatore, *research fellow*,^a Chiara Pandolfini, *research fellow*,^a Nicola Casella, *research fellow*,^a Maurizio Bonati, *head*^a

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Empirical Studies Assessing the Quality of Health Information for Consumers on the World Wide Web

A Systematic Review

Main issues with CHI online:

- Quality of web based information
- Credibility

Quality control of health information on the internet

- The quality control of health information on the internet rests on **four pillars**:
 - educating the consumer
 - encouraging the self regulation of providers of health information
 - having third parties evaluate the information
 - enforcing consents in cases of dissemination of fraudulent or harmful information.

Credibility Criteria

- The FA4CT Algorithm: A New Model and Tool for Consumers to Assess and Filter Health Information on the Internet
- **CREDIBLE Criterion**
- Current and frequently updated
- Reference cited
- Explicit purpose
- Disclosure of sponsors
- Interest disclosed and no conflicts found (e.g financial)
- Balanced
- Level of Evidence
 - Eysenbach G, Thomson M. The FA4CT Algorithm: A New Model and Tool for Consumers to Assess and Filter Health Information on the Internet. In: Kuhn K (ed.) Medinfo 2007 Proceedings (in press)

Where clinical IS and Consumer health informatics meet

- Patient Portals: Patient interface to clinical information systems
- Personal Health Record: Internet based- set of tools that allows people to access and coordinate their life-long health information and make appropriate parts of it available to those who need it

Important Notes

Please phone the office 360-675-2286 for urgent medical problems or dial 911 for medical emergencies.

Your physician will respond to your message Monday through Friday during office hours. If you do not receive a timely response, please phone the office. During evenings and weekends, please

Contact My Doctor/Provider

Please complete the following information:

To: ▼

Subject: ▼

Message:

Dr Jones, the sample medication you gave me at my last visit does not seem to be working. Should I continue to use this or should we change to something else?

Thanks,

Steve

Important Notes

Please phone the office [800-475-1000](tel:800-475-1000) for urgent medical problems or dial 911 for medical emergencies.

Request an Appointment

Our appointment scheduling staff will handle your request, and will reply with date and time options for you to confirm.

Please complete the following information:

Type of Appointment

Complete Physical Exam



Reason for Appointment
(Optional)

I need my yearly physical exam



Special Requests, Comments, etc.



Calendar

Date Requested:

Time



Morning



Afternoon



No Preference

Send Appointment Request

Important Notes

Please report any medication side effects or allergies.

All patients must be seen at regular intervals to evaluate your medical problems and medications.

Some insurance plans will only permit enough medication for one month at a time.

We will forward your

Refill/Renew My Medications

Please complete the following information regarding your medication refills.

(Check only those medications you need refilled or renewed at this time. You must select at least one checkbox. If you do not see your medication listed below, please [Click here](#) to update your medication list. Once you have updated your medication list, you can return to this page and request a refill.)

[Add/Edit Meds](#)


Check to Refill	Medication Name	Dosage (mg, ml)	Dosage Frequency	Quantity
<input type="checkbox"/>	Lantus	14 units	Once Daily	1 ▾ Days ▾
<input type="checkbox"/>	Regular insulin	as needed	Three Times	1 ▾ Days ▾
<input checked="" type="checkbox"/>	Lasix	20 mg	Once Daily	1 ▾ Days ▾
<input type="checkbox"/>	Lovastatin	20 mg	Once Daily	1 ▾ Days ▾
<input type="checkbox"/>	Liraglutide	60 mg	Once Daily	1 ▾ Days ▾

Important Notes

This form will be reviewed by your doctor for approval. You will be notified about approval, the need to visit your primary care doctor, etc.

Request a Referral

To receive a referral to a specialist, please complete the following:

Specialist Type	Allergist 
Specific Doctor	Dr Green
Medical or Surgical Problem (Describe)	Allergies
Have you seen this specialist before?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Have you consulted your primary care physician for this problem?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments	


Important Notes

Please phone the
office 303-871-2205 for
urgent medical
problems or dial 911 for
medical emergencies.

View EKG

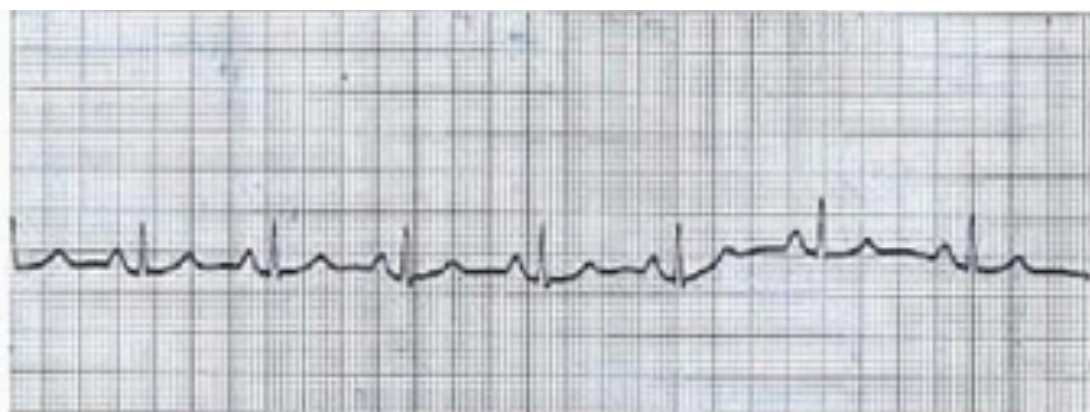
Click on the title to view a document.

Results for **Steve Johnson:**

Title	Description	Print
<u>3-30-2003</u>	Normal	



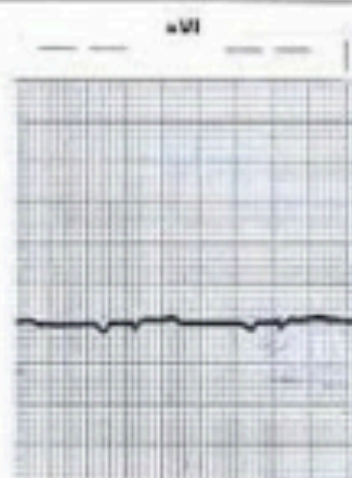
GRAPHICS



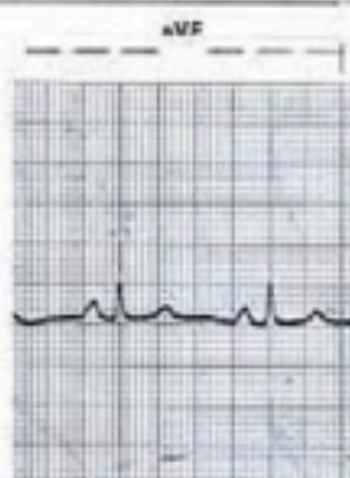
GRAPHICS



aVR



aVL



aVF

GRAPHICS



V1



V2



V3

Consumer Health Informatics

- Is not restricted to the use of computers and telecommunications but also includes:
 - The delivery of information to patients through other media: the theoretical framework of consumer informatics, for example the analysis of their information needs, is independent of the media through which the information is presented.

Consumer Health Informatics Systems

- Consumer health informatics can be organized into three general systems that:
 - *provide* health information to the user (one-way communication)
 - *tailor* specific information to the user's unique situation (customized communication)
 - allow the user to *communicate* and *interact* with health care providers or other users (two-way communication)

Consumer Health Informatics Systems

- **One-way communication:** CD-ROMs, on-line health articles
- **Tailor:** automated systems that obtain information from the consumer about his or her general health or other health-related factors (such as family disease histories and smoking habits) and, on the basis of this information, suggest a need for preventive health procedures (such as mammograms), or identify actions to curb high-risk behaviors.
- **Two-way communication:** electronic mail, electronic bulletin boards, on-line discussion groups.

Roles of Health Professionals in CHI

- Professionals serve as sources of content
- Professionals provide important guidance in moderating public electronic discussion groups and responding to patients' electronic messages
- Clinicians become information brokers and interpreters for patients.

The Future Trends

Is for:

Consumer Health Informatics

- Thank you

