

Introduction



Course structure

- Lectures
- Display wall
- Mid-term
- Final project
- Office hours
- Communication



Why this course?

- Your goals
- My goals
- Opportunities



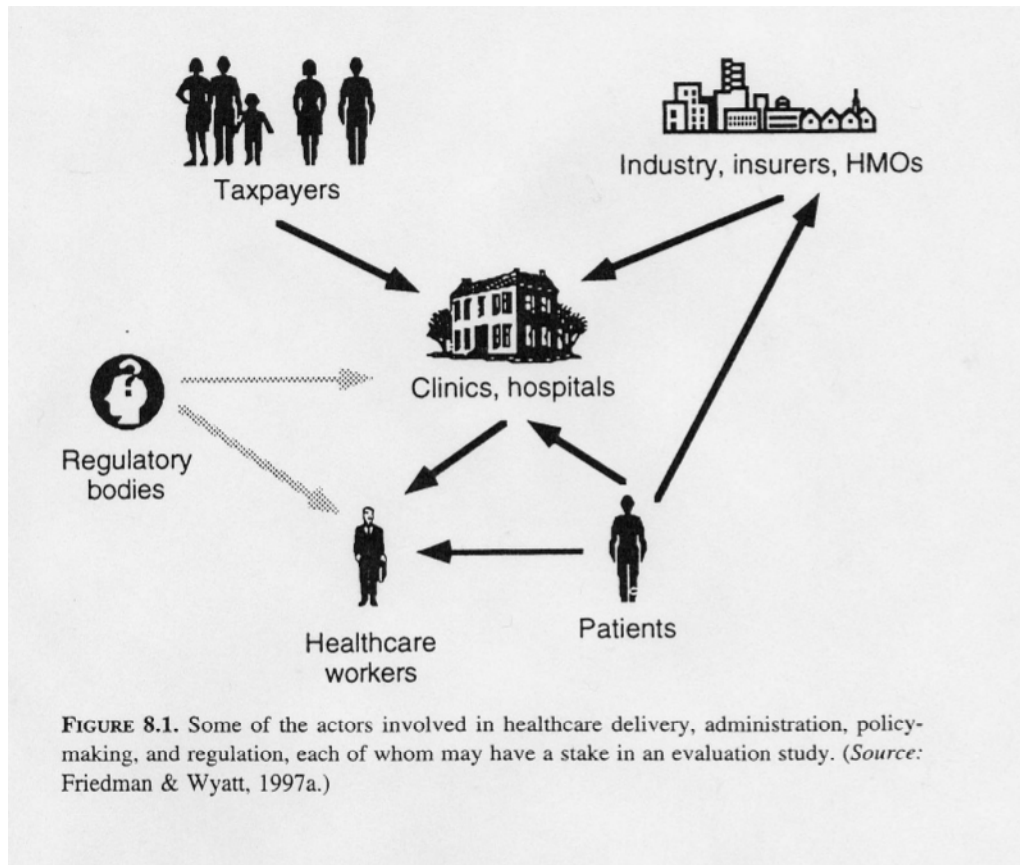
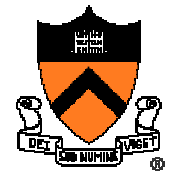
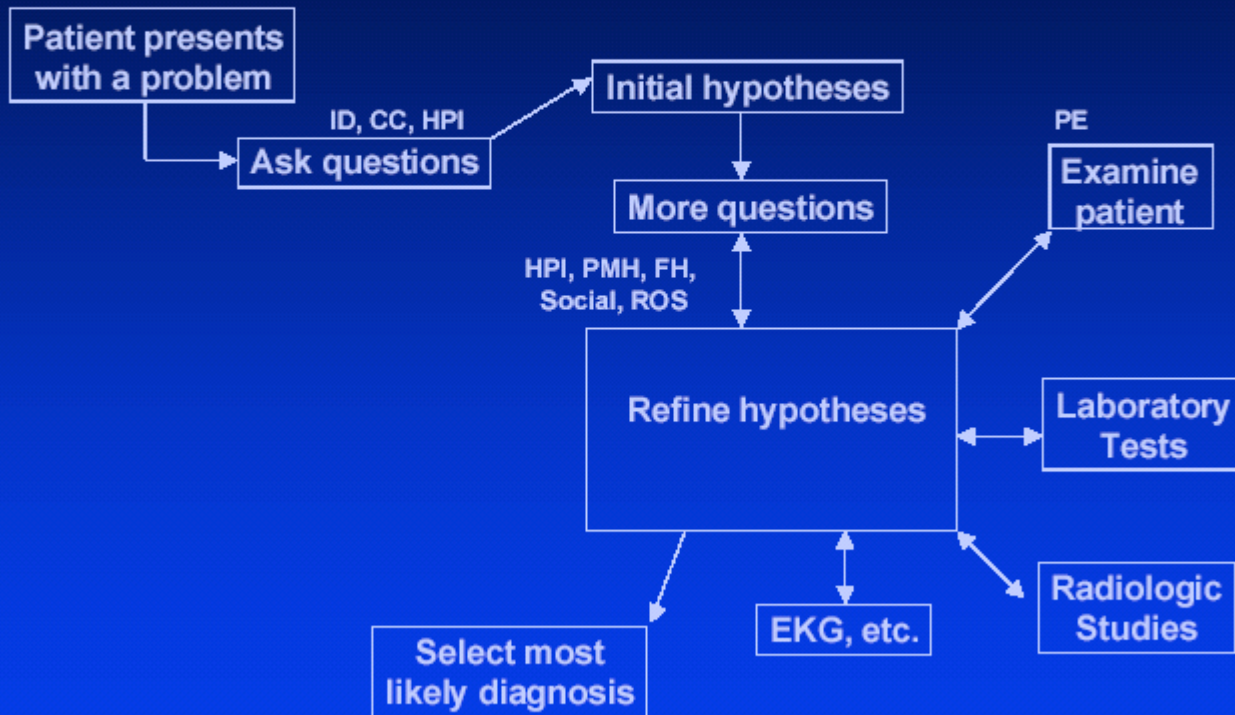


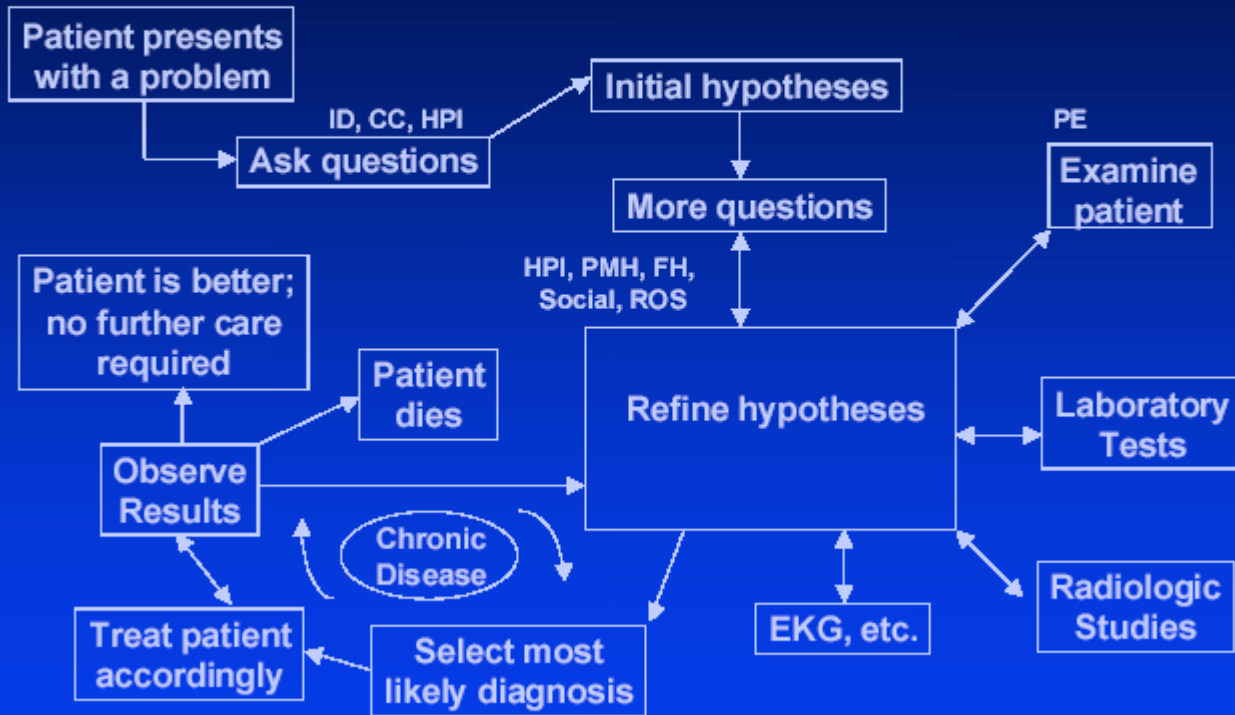
FIGURE 8.1. Some of the actors involved in healthcare delivery, administration, policy-making, and regulation, each of whom may have a stake in an evaluation study. (Source: Friedman & Wyatt, 1997a.)



The Process of Patient Care



The Process of Patient Care



Functions of computers in medicine

- Data acquisition and presentation
- Record keeping and access
- Communication and integration of information
- Surveillance
- Information storage and retrieval
- Data analysis
- Decision support
- Education



Physicians' Acceptance of Medical Computing Applications

	<u>% Acceptance</u>
Computer-Based Patient Records	83
Hospital Information Systems	97
Patient Monitoring Systems	80
Diagnostic Consultation Systems	81
Therapy Consultation Systems	83
Computer-performed Physical Exams	36
Substituting for Physicians in Underserved Areas	32
Examination of Physicians for Relicensure	52



Types of doctors

- Primary care provider
 - Internist, family practitioner, pediatrician
- Specialist
 - Medical
 - Surgical
- Hospital based provider
 - Anesthesiologist
 - Pathologist
 - Radiologist



Types of health interaction

- Healthy visit
- Chronic visit
- Diagnostic visit
- Acute care



Locations of health care and documentation

- Office
- Hospital
- Home
- Chronic care
- Other hospitals
- Abroad
- Etc.



Types of information

- Textual
- Trend
- Lab data
- 2/3D images
- Administrative
- Billing



DATE OF BIRTH

PHYSICIAN

June 3, 1979 ON CHART

Admission Note

10: lat admission for thin 24 yr Mexican American F
w/ chronic hts

20: Anamnesis for eye visit

HPI: On hts pt noted the onset of myalgias, severe
headache, nausea, neck pain, and ataxic gait.
She consulted her primary MD for these problems and he
diagnosed trigeminal neuralgia and a combination of
Chlorzoxazone, acetaminophen, and aspirin.
She is otherwise healthy. However, she is worried
over the test work until after she was presented to our
ED. She denies perceptual distortions, & other visual
symptoms. She has noted a reproductive cough but
is a nonsmoker and she denies alcohol use.
She denies exposure to disease individuals, specifically
including histoplasmosis disease or TB.

PMH: To be of relevance other than MDD's. MDD's only
as above. Ophthalmic Surgery to her daughter,
age 12, by NVD.

Social: Training & job work in home. Has never lived
in San Joaquin Valley. Last travelled to Texas
by car in 1974.

PE: Gait: well until 10 days PTA

Sex: F

Head: R 2 pr HPT



TESTES - NI size and consistency; no masses
Rectal - 0 masses; (R)
prostate nodule L
~1.5cm → R

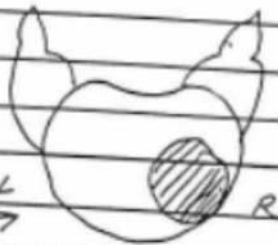


FIGURE 2.2. A physician's hand-drawn sketch of a prostate nodule. A drawing may convey precise information more easily and compactly than a textual description.



PAST EYE HISTORY:

X

GEN. MEDICAL HISTORY (F.H.)

Edema & hypertension

ALLERGIES:

Sniff

OCULAR EXAMINATION:

NW -2.00 DS + 3.25 cyl

VISUAL ACUITY:

-1.50 DS + 3.75 cyl

REFRACTION:

Present (glasses)

SE 20/40 +1
40 -2

EC 2.
@ 10'

Manifest

RHA -2.75 DS => 20/40 +1
-3.00 DS => 20/40 +1

Cycloplegic

FIGURE 2.3. An ophthalmologist's report of an eye examination. Most physicians trained in other specialties would have difficulty deciphering the symbols that the ophthalmologist has used.

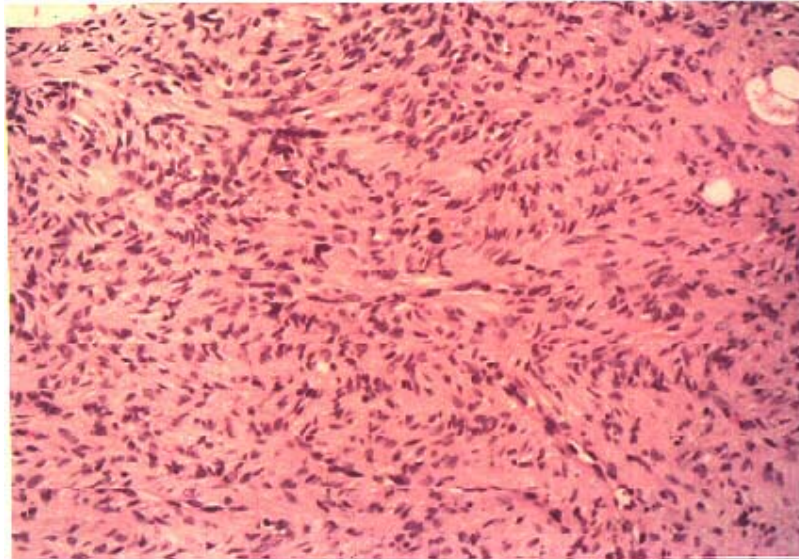


10/10/86	ENT.
	Left in Birmingham by post
	Tolerance of symptoms is well
	except for occasional pain in
	ear.
	Pl. is not a bad one - is mild
	bleeding in peritumour
	Pl. - Down 2 per LA
	Histology: Tm's clear + white
	pl. in @ Pl. in
	@ black
	HP/WP: @ slight pink
	lx - clear Tm's
	well built scan, scanning
	in peritumour
	Tm's @ clear
	Pl. - still
	Pl. - continue to be
	- plan as per

FIGURE 2.8. Written entries are standard in paper records, yet handwritten notes may be illegible. Notes that cannot be interpreted by other people may cause delays in treatment or inappropriate care.



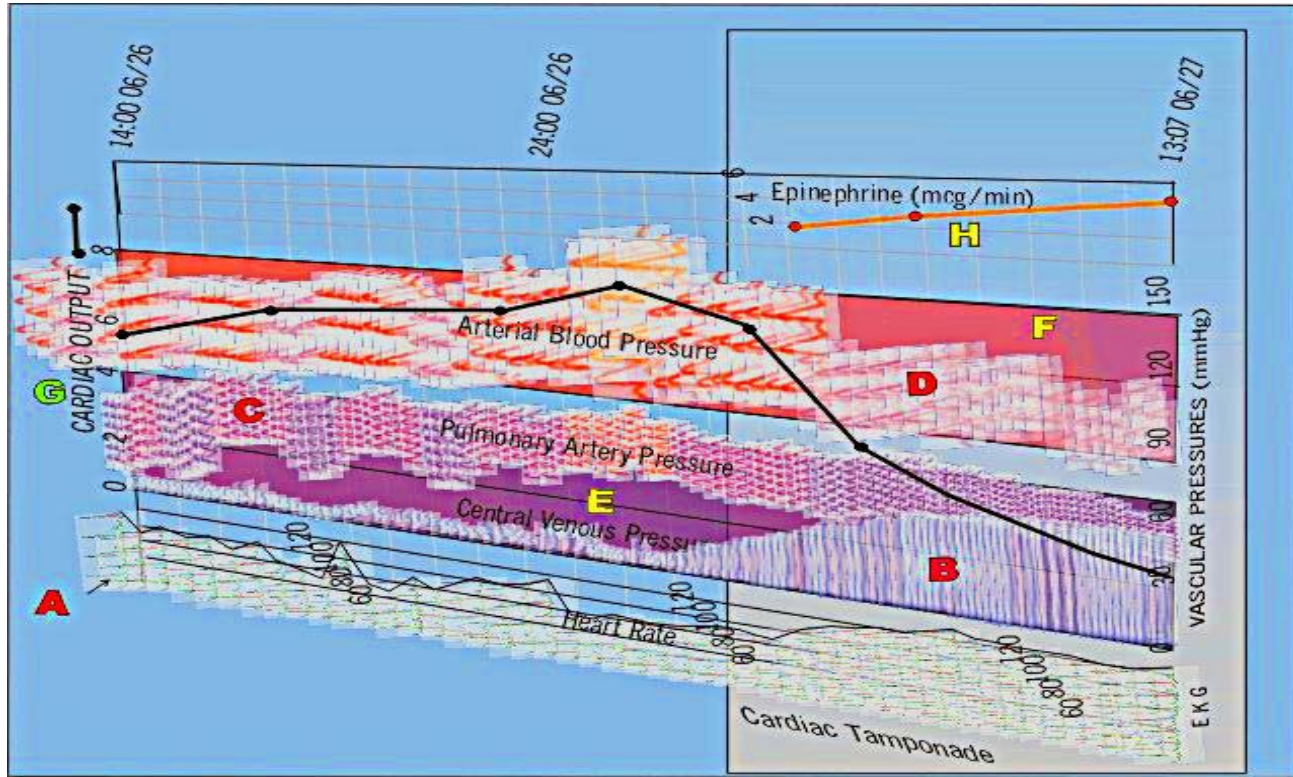




- 2 and 3-d data sets
 - [Echocardiography](#)





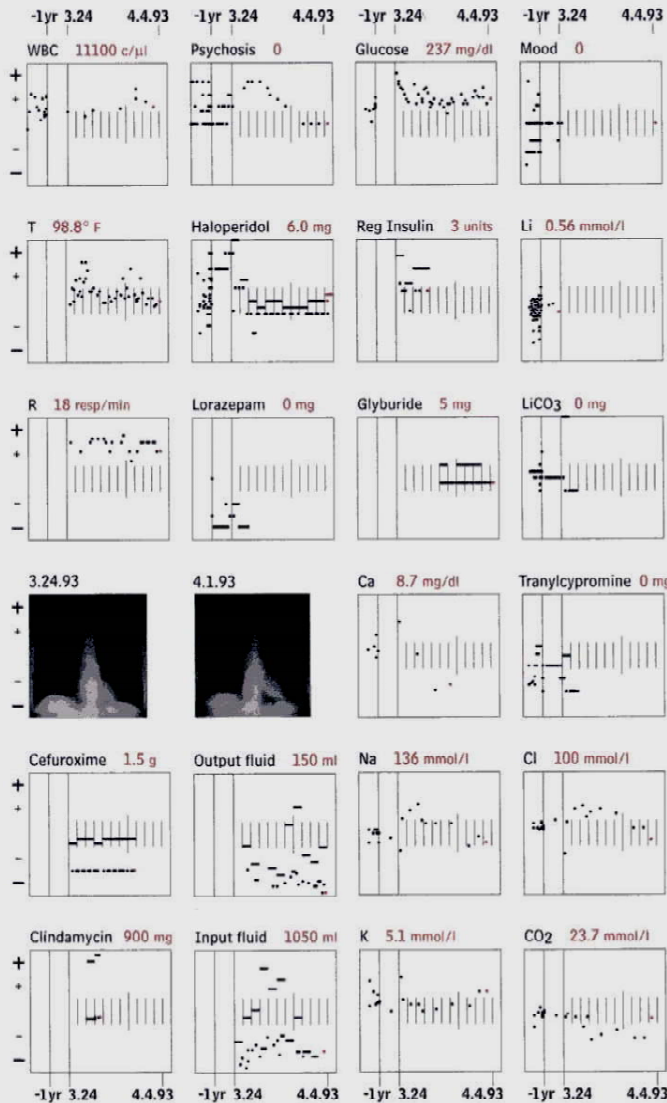


Surname, Forename M. admitted 3.24.93

4.4.93

7-South, Bed 5

Right lower lobe pneumonia, hallucinations, new onset diabetes,
history of manic depressive illness



Discharge. PB MD 1200 4.4.93

No delirium. JT MD 900 4.4.93

Enema given. PAC RN 1100 4.3.93

Will treat for probable constipation.
MBM 2245 4.2.93

Vomited three times. RW RN 2230 4.2.93

Left lower lobe infiltrate or atelectasis.
AL MD 1500 4.2.93

Alert and oriented. No complaints.
PAC RN 1100 4.1.93

Attending to activities of daily living.
PAC RN 1100 3.31.93

Ambulates with assistance. Weak.
PAC RN 1400 3.30.93

Still coughing. Breath sounds
diminished at right base.
PB MD 1000 3.30.93

Discontinued sitters. MM RN 1500 3.29.93

Follows directions. DB RN 1500 3.28.93

More relaxed. CM RN 700 3.28.93

Drowsy and sleeping. MT RN 2130 3.27.93

Out of restraints. JMT MD 1330 3.27.93

Left conjunctivitis; treat with garamycin
drops. DJS MD 1230 3.27.93

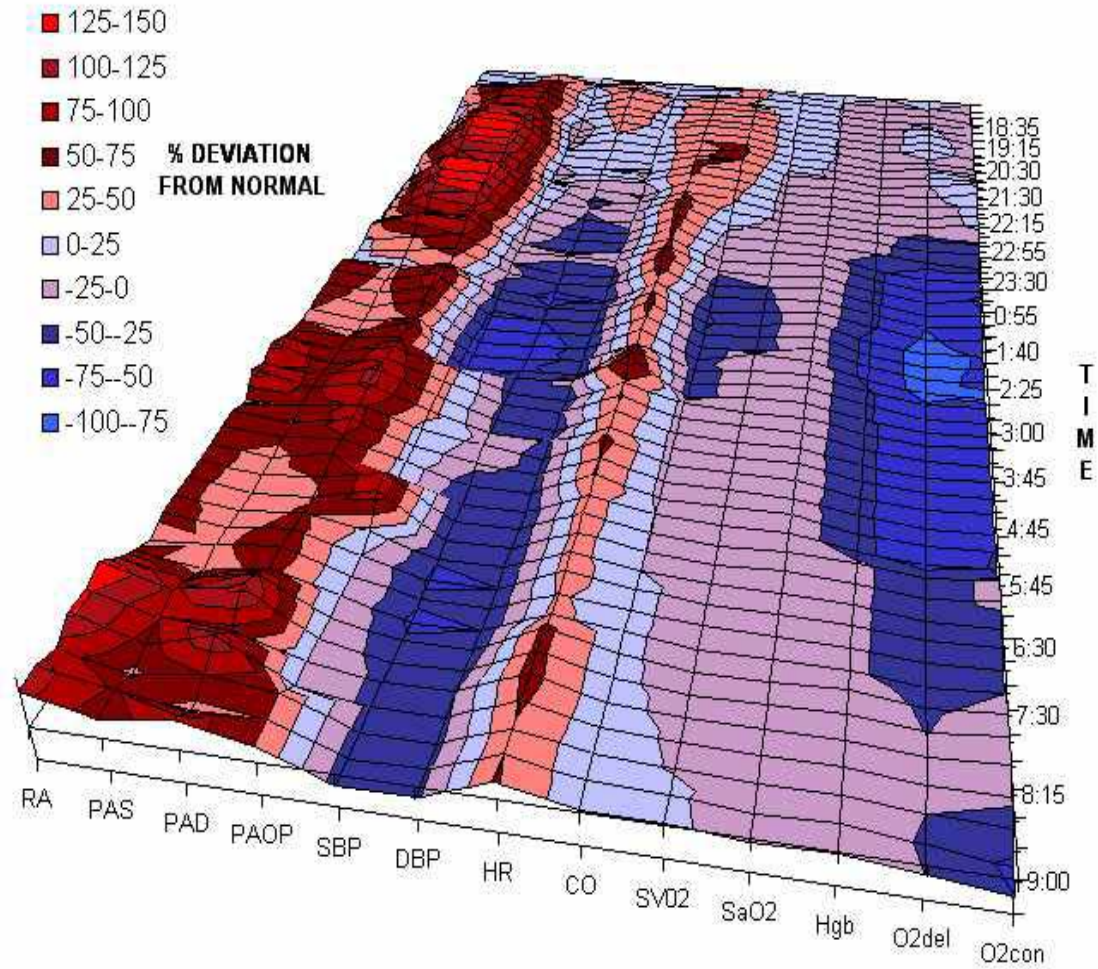
4-point restraints and sitter needed.
PM RN 1500 3.26.93

4-point restraints required. Delirious.
Switching to half normal saline for
hydration. Parathyroid hormone test
results pending. LMG MD 930 3.26.93

Pulled out IV twice. Hallucinating.
Attempted to drink call light.
CM RN 700 3.26.93

Next screen





NUMERO ASSOLUTO dei NATI VIVI

MASCHI

loro superstiti classificati per età
secondo i risultati dei Censimenti

SVIZZIA 1750-1875

— Linee di età — Linee dei censiti
— " isodemiche — " " superstiti

SCALE

25^{mm} per 100 anni di età e per 100 d'osservazione
75^{mm} per 50 000 individui

Le ordinate verticali rappresentano il numero dei maschi, le ascisse orizzontali indicano i tempi di osservazione e gli anni di età.

SISTEMA D'ASSI

