Quality improvement: Factors influencing adherence

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Presenter Disclosure Information

FINANCIAL DISCLOSURE

I accept no personal compensation of any kind from any pharmaceutical manufacturer.

I receive some research support through the Brigham and Women's Hospital from pharmaceutical companies, but none deals directly with the topic of this talk.

UNLABELED/UNAPPROVED USES DISCLOSURE:

None

Compliance

- Synonyms: *'adherence,' 'persistence'*
- Epithets re non-compliance:
  - *'America's other drug problem'*
  - *'The dirty little secret of drug therapy'*
  - *'A hidden epidemic'*
- Physicians often unaware
- Requires a stable, closed population to study
- Data appalling; dwarfs market share concerns

Hypertension

- 1 in 4 adults Americans has it

- 32% unaware of condition
- 15% not on any medication
- 26% on meds but not controlled
- 27% controlled on meds

--American Heart Association

Noncompliance with Antihypertensives

1-year retrospective study (n=8,643) in new starters

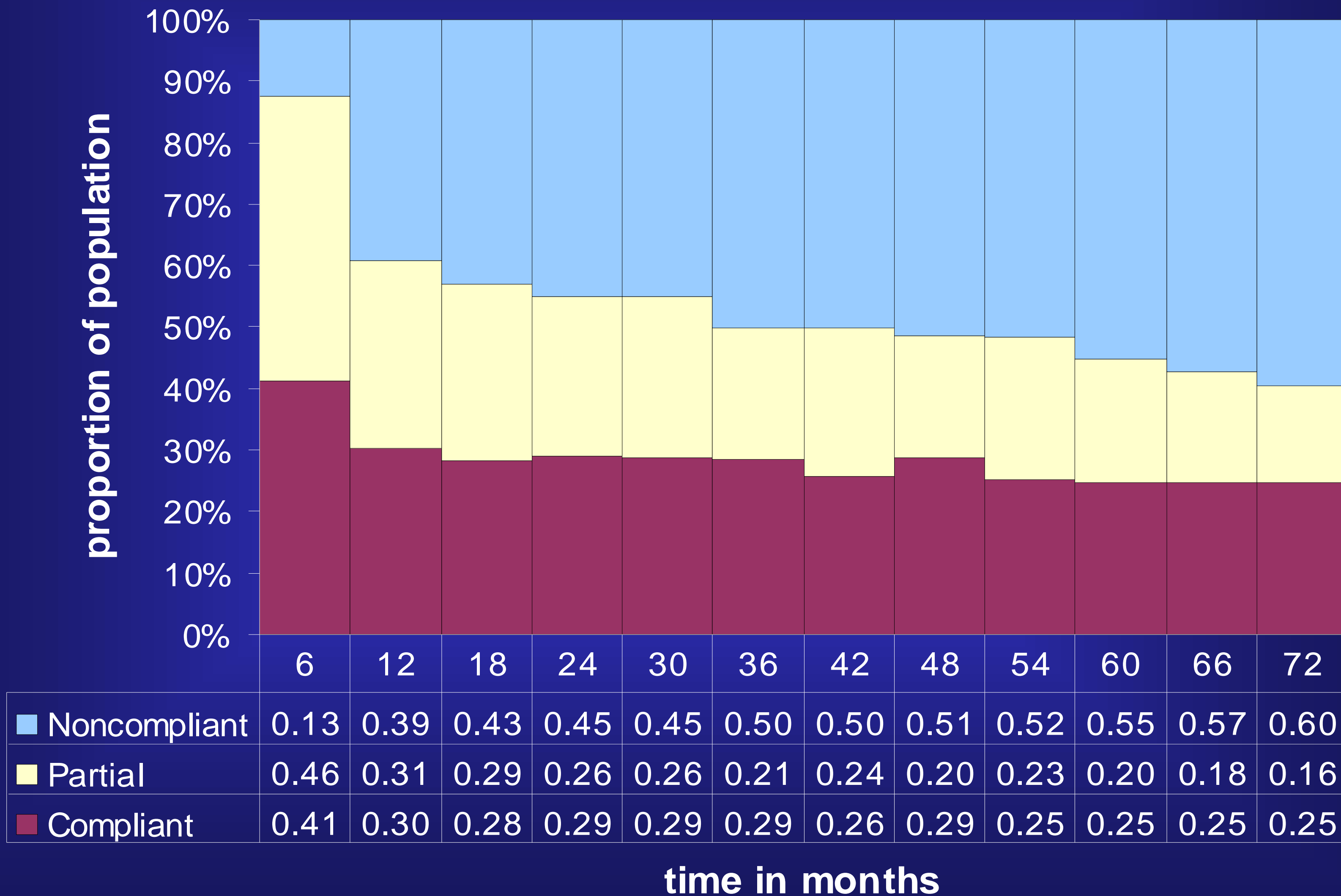
Days with drug available:	43%
Achieved "good" compliance:	20%
Did not refill initial Rx:	21%

– M. Monane et al

Statin non-compliance

- There is a dramatic dropoff in use of statins in the first 6 months of treatment.
- Within 5-6 years, only about 50% of patients are still being treated adequately.
  - Avorn et al, JAMA 1998
  - Benner et al, JAMA 2001
- …and this is in populations with full drug coverage!
  - implications for insurance plans.

Statin Use by Compliance Category

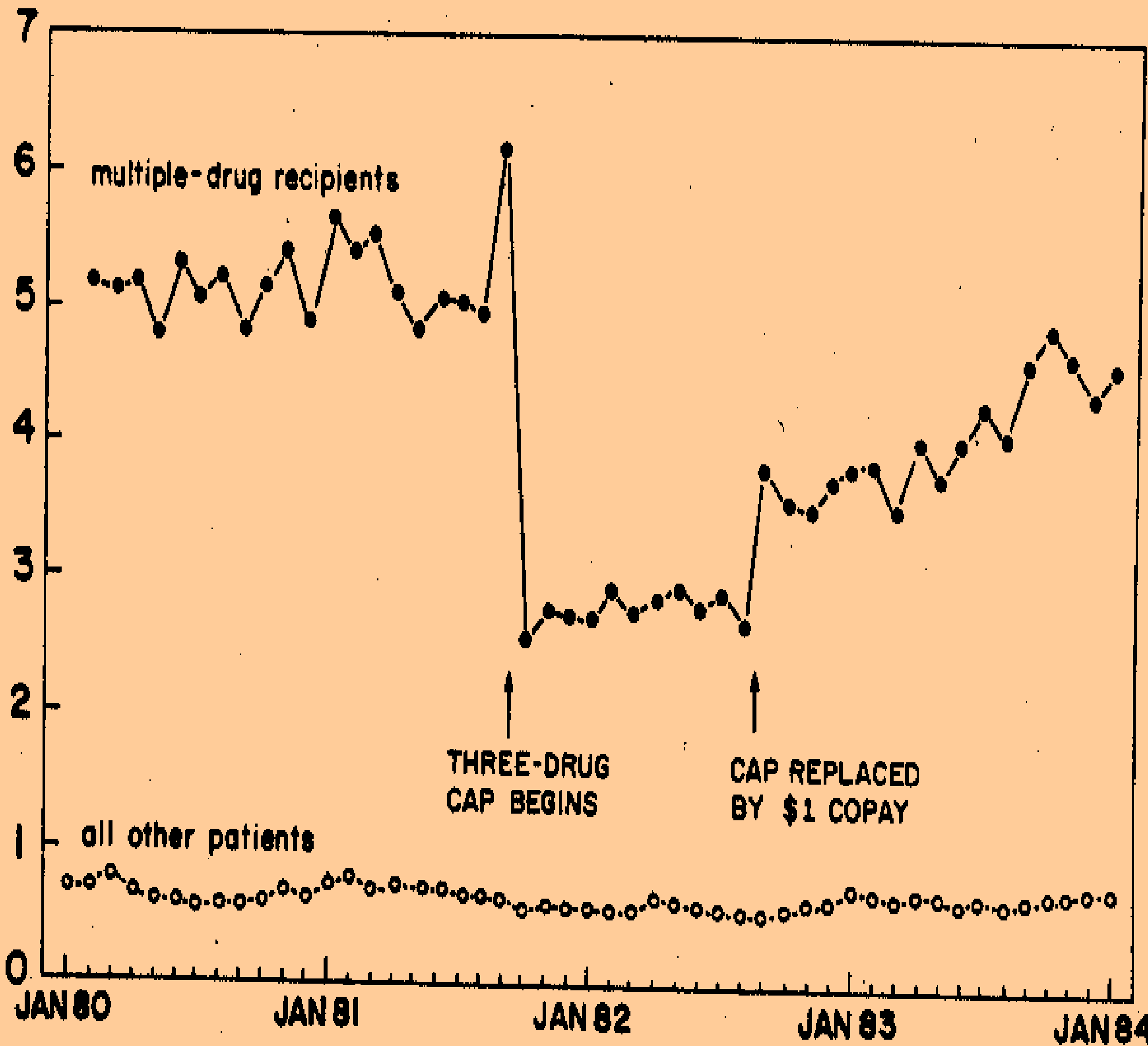


The influence of economics

- Even when all patients have good coverage, the poor comply less well
  - J Avorn et al
- Patients who have trouble paying for drugs comply even worse
  - M. Steinman et al
- Starting with a generic drug enhances compliance
  - W. Shrank et al

Ongoing epidemic of drug policy changes

- Generally not planned for or ‘designed-in’
- *‘Large-scale, poorly designed human experimentation without consent’*
- Findings often surprising
- examples: New Hampshire, Canada


MEAN NO. PRESCRIPTIONS PER PATIENT
7
6
5
4
3
2
1
0
multiple-drug recipients
THREE-DRUG
CAP BEGINS
CAP REPLACED
BY $1 COPAY
all other patients
JAN 80
JAN 81
JAN 82
JAN 83
JAN 84

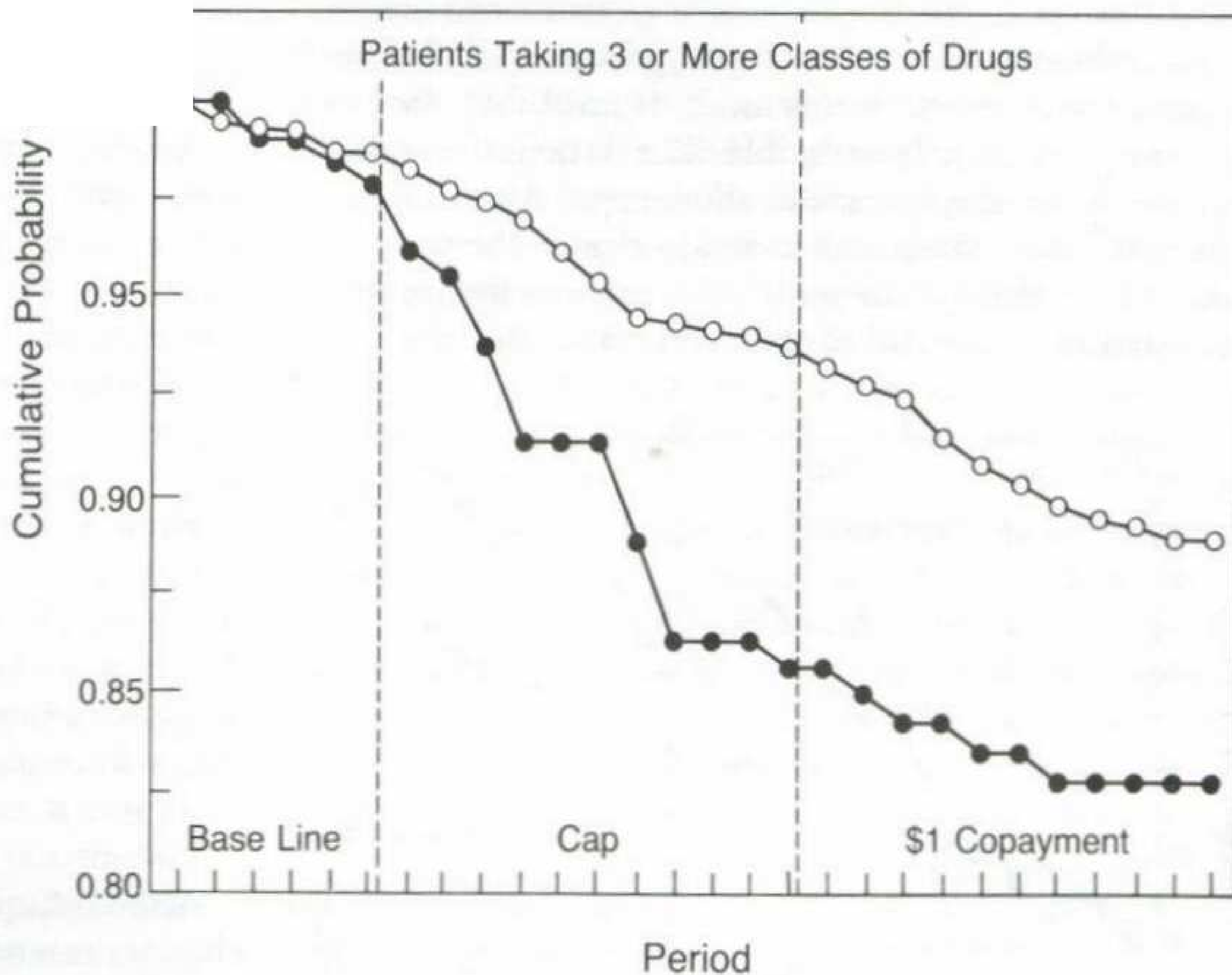


Figure 1. Cumulative Probability of Remaining outside a Nursing Home.
The top panel shows the curves for all patients in the New Hampshire (n = 411) and New Jersey (n = 1375) groups. The bottom panel shows the curves for patients who regularly used drugs from three or more classes at base line (n = 198 for New Hampshire and 762 for New Jersey).

Reference pricing in Canada

- British Columbia covers drug costs of all residents >65
- 3-tiered co-pay system introduced
- debate over drug savings *vs.* risks:
  - extra MD visits, more co-morbidity, worse compliance?
- Result: huge savings for province, no major clinical downsides
  - Schneeweiss et al, NEJM, March 2002

Quality assurance / improvement

- Can ‘biopsy’ practice to determine who is prescribing what to whom
- Drugs are well suited to such measurement
  - intervention is precisely specified
  - have good data on efficacy, indications
- uses of the data:
  - targeting educational activities
  - feedback
  - monitoring effectiveness of programs

Conclusions

- Patient non-adherence with preventive meds is one of the most important lesions in stroke prevention
- Much can be done to address the problem:
  - sensible drug coverage plans
  - informatics
  - MD, RN, pharmacist interventions

For more information….

"Powerful Medicines: the Benefits, Risks, and Costs of Prescription Drugs"

(Knopf 2005):

www. PowerfulMedicines.org

"Academic detailing" program in Pennsylvania:

www.RxFacts.org

The BWH Division of Pharmaco-epi and Pharmaco-eco ("DOPE"):

www.DrugEpi.org