NHIS Data on Health Insurance Coverage: An Important Policy Resource
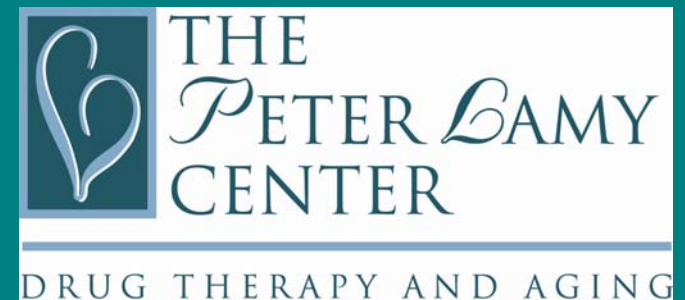
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Dramatic changes in federal, state policy designed to affect health insurance availability, organization, financing, and quality

Late 1980's through 2006:

- Expansions of Medicaid, SCHIP
- New Medicare drug benefit
- Regulation of private insurance markets; coverage mandates
- Expansion of managed care in public & private sector
- Efforts to reduce race/ethnic, age, income, and health status disparities
- "Consumer directed" health programs
- Monitoring, payment incentives for quality

Household surveys have unique role in policy research

- Household surveys can be used for:
  - Needs assessment "snapshots"
  - Simulation
  - Evaluate policies implemented
- Contrast with administrative (enrollment or claims) data
  - can examine those who *do not* participate
  - can examine unintended effects on target, other populations

The policy researchers wish list

- Coverage by source, type
  - Current status, whether full year, transitions over time
  - Source & how paid for
  - Type of plan
  - Scope of coverage for selected services
  - Premium
  - Cost sharing
- Coverage Options
  - Employer offers, eligibility
  - Alternative employer plans available
  - Eligibility for public insurance programs
- Outcomes
  - Access
  - Service use – overall, condition specific
  - Spending – plan, out of pocket
  - Health status, changes
- Ability to make subpopulation including state specific estimates
- Ability to implement desired research design

A number of household surveys have been used to analyze health insurance policy

Federally sponsored:

- National Health Interview Survey (NHIS)
- Current Population Survey (CPS)
- Medical Expenditure Panel Survey (MEPS)
- Survey of Income & Program Participation (SIPP)
- Health & Retirement Survey (HRS)
- Medicare Current Beneficiary Survey (MCBS)
- SLAITS Surveys – NS-CSHCN, NSCH
- Behavioral Risk Factor Surveillance System (BRFSS)

Foundation funded:

- National Survey of America's Families (NSAF) (1997-2002)
- Community Tracking Survey (CTS) (1996-2003)

Each has its strengths & weaknesses

NHIS Provides Extensive Information on Insurance Coverage

- Current coverage by type
  - Does not capture full year, transitions between types
- Uninsured – ever during year, length, reason
- Private medical plan source, plan type, policy holder, who pays, family premium contribution for up to 4 plans
  - Plan covers Rx
  - Plan covers dental (periodic)
- Single service plans
- ESI offer asked of all workers
  - No info on plans offered but not taken
- Managed care
  - Public – care management features
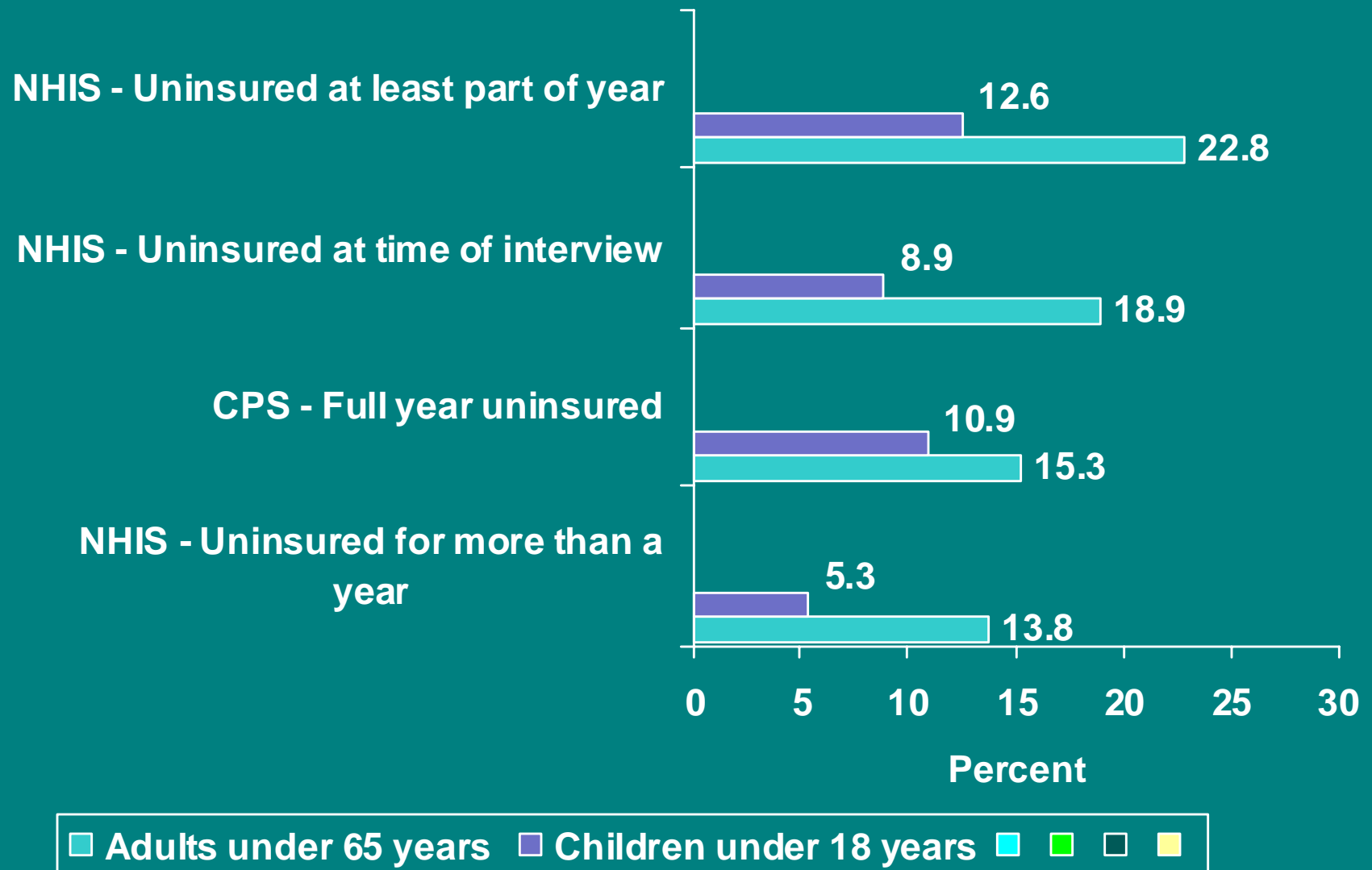 - Private – assignment to HMO, PPO, POS

NHIS data collection process enhances validity, reliability of insurance data

- In-person interview => high participation rate
- Insurance card observed, name recorded for later confirmation of source, type
- Confirmation/prompt to improve insurance recall
  - Added confirmation question concerning uninsured status (2000)
  - Medicaid, Medicare probe questions (mid-2004)

Insurance questions updated to reflect policy & market initiatives

- SCHIP enrollment (1999)
- Collect reported single service plans (1999)
  - Actively ask about SS plans (2004)
- Private Rx coverage (2004)
- Medicare Rx card (2004)
- Medicare + Choice (Advantage) – additional info (2000)
- Part D enrollment (2006)
- High deductible health plans, health savings accounts (new in 2007)
- Dental (2008)

Comparison of NHIS and CPS estimates of uninsured, CY2005

NHIS - Uninsured at least part of year: 12.6, 22.8

NHIS - Uninsured at time of interview: 8.9, 18.9

CPS - Full year uninsured: 10.9, 15.3

NHIS - Uninsured for more than a year: 5.3, 13.8

Percent

Adults under 65 years Children under 18 years

NHIS Provides Extensive Measures of Health Status

- All persons
  - General (EVGFP)
  - Limitations of activity/disability
  - Conditions that cause limitations
  - Injuries, poisoning
- Sample adult and child
  - Medical conditions
  - Child behavior (MHI, SDQ)
  - Health behaviors
  - Change in general health status from prior year
  - Special supplemental questions
- Limitations

NHIS includes broad array of potential health related outcomes

- Access to care
  - Usual source of care
  - Perceived unmet need – medical, dental, rx, mental health, vision care
- Use of services
  - Past 12 months – ER, hospital, outpatient, any visit to selected provider types
    - Does not link utilization to diagnoses
  - Past 2 weeks – phone call, visits
  - Immunizations
- Spending – limited to family out of pocket
  - MEPS, MCBS best survey based sources of spending data
- Supplements gather targeted preventive behavior, screening, diagnoses, services

NHIS captures many key demographic, economic measures

- Age, race, ethnicity, gender, origin
- Region, urbanicity
- Employment, other sources of income
- Public program participation (SSI, TANF, WIC, subsidized housing, etc.)
- Earnings, family income
  - questions limited

The question of state estimates..

- NHIS collects data from PSUs in all states
- Sample adequate => state specific estimates for 20 largest states; pool multiple years for smaller states
- Researcher readjust weights to state control totals
- State, county indicators can be accessed, but only through Research Data Center

Examples of creative use of NHIS

- Studies focused on public insurance eligibility, participation
  - Effects of Medicaid expansions
    (Currie & Gruber 1996; Lykens & Jargowsky, 2002)
  - Medicaid eligible but uninsured children, adults
    (Davidoff, Garrett, Makuc, Schirmer 2000; Davidoff, Garrett, Yemane 2001)
  - Determinants of Medicaid take-up
    (Davidoff & Garrett 2001)
  - Effects of SCHIP expansions
    (Davidoff, Kenney & Dubay 2005; Wang, Norton & Rozier forthcoming)

Complex algorithms created to examine Medicaid & SCHIP eligibility

- Algorithm mimics eligibility determination process
  - Link state, year specific policies related to Medicaid and/or SCHIP eligibility
  - Compute family countable income for AFDC/Section 1931, medically needy, poverty expansions, 1115 waivers
  - Compare family structure, income, assets to federal & state thresholds, regulations
- Studies examining eligibility expansions pooled multiple years of NHIS data, used difference-in-difference or IV estimates to address causality

Studies examining effects of Medicaid/SCHIP managed care

- On Medicaid enrollment, overall, by race (Currie & Fahr 2005)
- On racial disparities in access (Cook, 2007)
- On access, service use for children & TANF moms (Garrett, Davidoff, & Yemane 2003)
- Access, service use for children with chronic conditions (Davidoff, Hill, Courtot & Adams 2007)
  - Linked managed care policy specific to county, year, Medicaid vs SCHIP & SSI vs other children
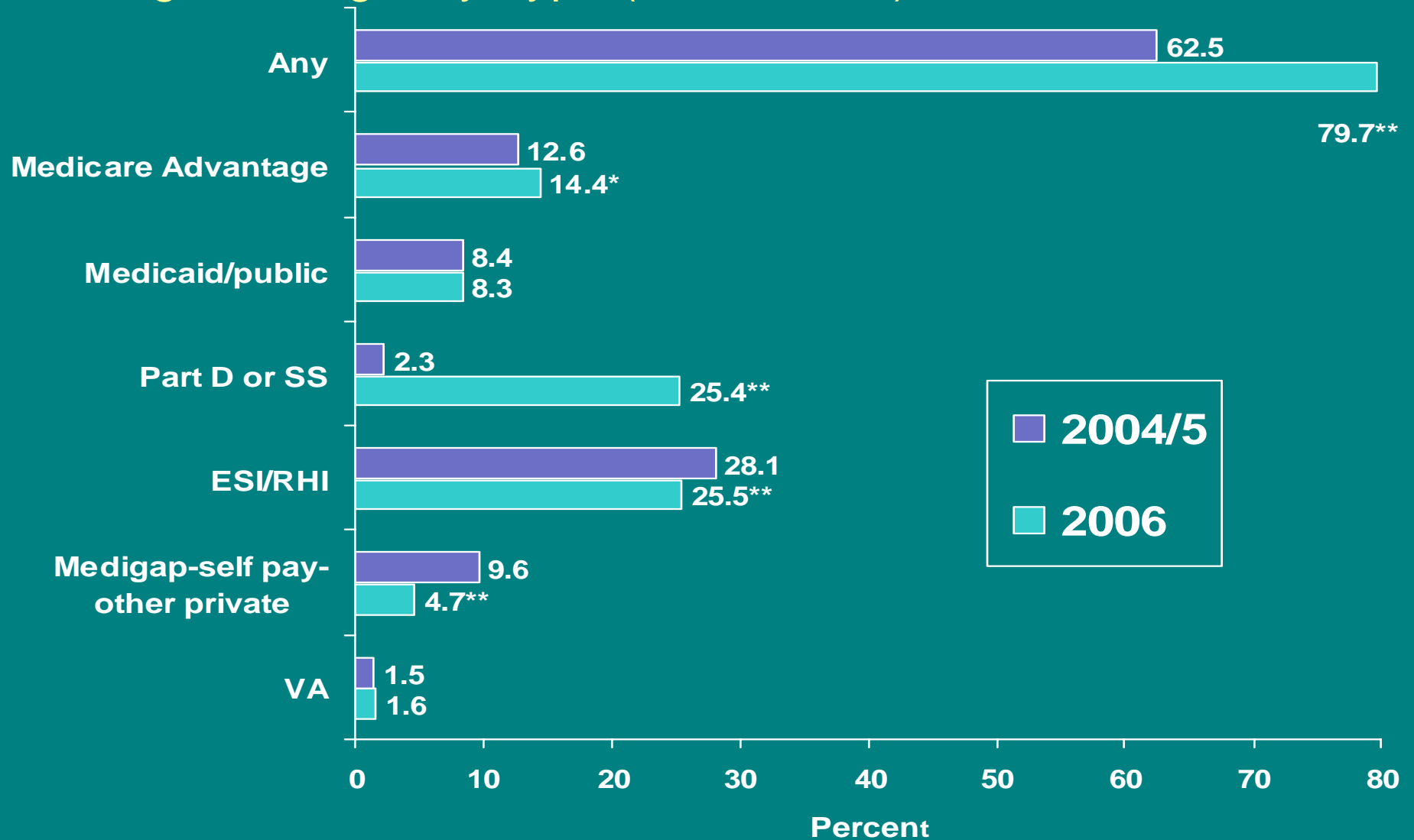
Estimating the effects of Medicare Part D on Rx coverage for the elderly

- Traditional Medicare does not cover outpatient drugs
  - Large # of elderly Medicare beneficiaries lack Rx coverage
- MMA of 2003=> Part D drug coverage
  - available Jan 1, 2006
- Purchase through Medicare Advantage, Stand-alone prescription drug plans (PDPs)
- Dual Medicare-Medicaid switch from state to Part D drug coverage
- Employers providing retiree drug coverage paid subsidy to continue
- New Medigap plans prohibited from covering drugs

First step - describe % with any, distribution by source of prescription drug coverage pre-post

- NHIS data from 2004 - 2006
- Used responses to questions about Medicare &
  - Medicaid enrollment
  - Medicare Advantage or HMO enrollment, pay premium for extra services
  - private plans (employer, privately purchased (Medigap), other), Rx coverage through private plans
    - VA
    - Part D
- Created hierarchy of supplemental medical & Rx coverage
- Estimated sample proportions, compared across year

Percent of Elderly Medicare Beneficiaries with Prescription Drug Coverage, by Type (Hierarchical), US 2004-2006

Any
- 62.5 (2004/5)
- 79.7** (2006)

Medicare Advantage
- 12.6 (2004/5)
- 14.4* (2006)

Medicaid/public
- 8.4 (2004/5)
- 8.3 (2006)

Part D or SS
- 2.3 (2004/5)
- 25.4** (2006)

ESI/RHI
- 28.1 (2004/5)
- 25.5** (2006)

Medigap-self pay-other private
- 9.6 (2004/5)
- 4.7** (2006)

VA
- 1.5 (2004/5)
- 1.6 (2006)

Legend:
- ■ 2004/5
- ■ 2006

X-axis: Percent (0, 10, 20, 30, 40, 50, 60, 70, 80)

Source: NCHS (R. Cohen) analysis of 2004 - 2006 NHIS

Next steps

- Multivariate DD model, using near-elderly retirees as comparison group
- Simulate eligibility for low income supplement, examine participation among eligibles
- Examine effects on access to prescription drugs
- Explore other datasets to examine spending, use of drugs, health outcomes