

Consequences of Gaps in Insurance Coverage

Leininger, 2009 (Medical Care Research and Review)

- Examination of relationship between duration of coverage and health care utilization among children, looking at effect of short-term loss of coverage
- Data from 1996-2003 MEPS
- Findings:
 - Children with coverage loss during the year are more likely to lose usual source of care than those with continuous coverage
 - Each month of uninsurance is associated with a **0.7%** decline in probability of having a doctors' visit over the course of the year
 - Each month of uninsurance associated with a **3%** decrease in number of visits received

Haley & Zuckerman, 2003 (Kaiser Commission on Medicaid and the Uninsured)

- Urban Institute report estimating numbers of temporarily uninsured individuals, and assessing potential consequences of short and long gaps in insurance coverage
- Uses data from 1999 National Survey of America's Families
- Findings:
 - Access to care indicators decline significantly if an individual loses insurance, even for a short period of time
 - <6 month gap:
 - **8%** less likely to have usual source of care (aside from ER)
 - **8%** more likely to lack confidence in ability to get care
 - **12%** more likely to have unmet medical or drug needs.
 - As gap gets longer, usual source of care and lack of confidence get worse; however, changes of reporting unmet need *decrease*
 - Hypothesis that this reflects disconnection with health care system, and growing lack of awareness of health care problems

Carlson et al., 2006 (Annals of Family Medicine)

- Study of short-term impact of Medicaid coverage loss in Oregon
- Data from prospective cohort study assessing impact of changes in Oregon's Medicaid plan on adults
 - Looked at unmet health care needs, utilization, medical debt in first 10 months after changes
 - Examined individuals with "disrupted" coverage (lost then regained within 10 months) and "lost" (10+ months)
- Findings:
 - Those with disrupted coverage were significantly less likely to have PCP visit (OR **0.66**), more likely to have unmet health care needs (OR **1.85**) and medical debt (OR **1.99**) compared to continuously insured
 - No significant impact on medication
 - Those who lost coverage were even less likely to have PCP visit (OR **0.18**), and more likely to have unmet health care needs (OR **5.55**), unmet medication needs (OR **2.05**), and medical debt (**3.06**) compared to continuously insured
- Concludes that negative impacts on utilization and access among Medicaid beneficiaries occur rapidly after changes

- Note: 34% response rate, respondents more likely to be female, white, English speaking

[Bednarek and Schone, 2003 \(Journal of Health Care for the Poor and Underserved\)](#)

- Study of association between length of insurance gap and use of preventive health services
- Data from 1996 MEPS
- Findings:
 - Compared to continuous insurance, dramatic difference in preventive service use among those uninsured full 12 months; modest difference for “intermediate” gap (6-11 months)
 - No statistically significant difference for short term uninsured (<5 months)

[Ayanian et al., 2000 \(JAMA\)](#)

- Study of unmet health needs of uninsured and insured adults using 1998 BRFSS data, comparing long-term uninsured (>1 year), short-term uninsured (<1 year), and insured
- Findings:
 - Long-term and short-term uninsured more likely to report not seeing physician due to cost (**26.8% vs 21.7% vs 8.2%**)
 - Even higher rates among those in poor health and fair health
 - Long-term more likely to not have check-up in two years (**42.8% vs 22.3% vs 17.8%**)

[Duchon et. al, 2001 \(Commonwealth Fund Report, “Security Matters: How Instability in Health Insurance Puts US Workers at Risk”\)](#)

- Used data from Commonwealth Fund 2001 Health Insurance Survey of 2,829 adults aged 19-64
- Findings:
 - Adults who had gone any length of time without health coverage were more likely to have gone without needed medical care than adults who’d been insured for the full year. Little variation by length of time.
 - **35%** of recently uninsured reported not filling prescription, compared to **13%** of insured adults
 - **27%** of recently uninsured had skipped a medical test/treatment of follow-up care vs **9%** insured
 - **31%** of recently uninsured did not see a doctor when sick vs **10%** insured
 - Counting any of these four access indicators, more than **50%** of recently uninsured went without needed care due to costs, **2X** greater rate than insured
 - **44%** of recently uninsured had problems paying medical bills; **31%** of short-term uninsured adults said medical bills forced a significant change in their way of life
 - Having any family member uninsured is associated with increased financial risk for the entire family
 - **56%** of families with at least one member lacking insurance in past year reported medical bill problems, compared to **25%** in families with all members insured
 - Recently uninsured **2X** more likely than insured to be required to pay cash in advance of receiving treatment

Aiken et al., 2004 (Ambulatory Pediatrics)

- Used 1999 National Survey of America's Families to assess sociodemographic characteristics associated with health insurance status changes among low-income children, and correlations with health status and use of medical care
- Findings:
 - **20.4%** of low-income children experienced an insurance status change in the preceding year. Black children and those with single parent were more likely to have a status change.
 - Duration of uninsurance averaged **5.8 months**
 - Compared to continuously insured private children, children whose transition included a period of no coverage were more likely to report postponing medical care and use of prescription drugs
 - Regression models show that each additional month increased odds of postponed medical care (OR **1.12**) and no physician visits (OR **1.14**), but did not have statistically significant effect on prescription drug use
 - Children moving from no coverage to private coverage more likely to have forgone doctors' visits

Schoen & DesRoches, 2000 (Health Services Research)

- Examines importance of continuous insurance by comparing access and cost for insured adults with recent period of uninsurance to continuously insured adults
- Data from RWJF 1996-7 Community Tracking Survey, Kaiser/Commonwealth 1997 National Survey of Health Insurance, and 1995-7 Kaiser/Commonwealth State Low Income Surveys
- Findings:
 - Currently insured individuals with recent period of uninsurance more likely to go without needed care and to have problems paying medical bills
 - **2-3X** more likely to report access problems than those with continuous coverage
 - Access and cost problems for the previously-uninsured were close to levels reported by the currently-uninsured

Kogan et al., 1995 (JAMA)

- Used data from 1991 Longitudinal Follow-up to the National Maternal and Infant Health Survey to estimate prevalence, duration, and effect of gaps in care on regular source of care for pre-school-aged children
- Findings:
 - One quarter of US children had no insurance for at least one month; half of these had a gap of 6+ months
 - Poorer children more likely to have a gap, and more likely for gap to be 7+ months; working-poor had highest level
 - Children with gaps of seven months or more had increased odds of having more than one care site (OR **1.52**).
 - OR for 1-6 month gap was **1.26**, borderline insignificant (**p=0.07**)
 - Risk further increased when emergency treatment was discounted as a multiple site of care
 - Note - multiple sites of care can also indicate increased geographic mobility or increased need/use of specialists, in addition to lack of continuity. Study also

found that only **45%** of children in the sample actually received care from one site

- Concludes that a gap in coverage can cause an disruption in continuity of care by increasing likelihood of having more than one regular source of care

[Sudano and Baker, 2003 \(American Journal of Public Health\)](#)

- Study of association between intermittent insurance gaps and use of preventive health services
- Longitudinal data from national sample of US adults from Health and Retirement Survey 1992-1996; assessed insurance coverage every 2 years
- Findings:
 - Short periods of time without insurance result in lower rates of preventive service use
 - Individuals with “episodes of non-coverage” were significantly less likely to receive preventive health services. In general, more episodes of non-coverage were linked to progressively lower likelihoods of preventive care – authors termed this a “dose-response” effect
 - Mammography: 1 episode = RR **0.87**; 2 episodes **0.81**; 3 episodes **0.59**
 - Pap test: **0.87**; **0.83**; **0.69**
 - Cholesterol: **0.91**; **0.82**; **0.66**
 - Similar for flu vaccine, prostate exam, breast exam

[Gai and Gu, 2009 \(American Journal of Hypertension\)](#)

- Used MEPS to assess association between gaps in insurance coverage and continued antihypertensive medication among adults 18-64 in nationally representative sample
- Assessed four categories: continuous private, continuous public, single/multiple coverage gaps, continuous uninsured
- Findings:
 - Those with insurance gaps and those continuously uninsured had lower odds of continuing medication; effect greater for uninsured than gaps
 - Insurance gaps = lower odds of continuing medication (AOR **0.64**)
 - Continuous uninsured = AOR **0.46**

[Banerjee et al. 2010 \(BMC Health Services Res.\)](#)

- Study of incidence and effect of transitions in and out of Medicaid, and associations with changes in healthcare utilization
- Used 2000-2004 MEPS data
- Findings:
 - Individuals with multiple transitions in and out of Medicaid have higher ER utilization, more office visits, more hospitalizations, less prescription refills

[Baker et al., 2001 \(NEJM\)](#)

- Study of health consequences of uninsured and intermittently insured adults in 50s and 60s using data from Health and Retirement Survey 1992-1996
- Findings:
 - Intermittent and continuous lack of insurance associated with increased risk in decline of overall health for adults aged 51-61

- “intermittent” could mean up to 2 years uninsured, since status only determined twice over a four year period
- Continuous and intermittent uninsured participants were more likely than continuously insured participants to have a major decline in overall health (**21.6% vs 16.1% vs 8.3%**)
- Adjusted RR of major health decline for continuous and intermittent uninsured = **1.63** and **1.41**
- Adjusted RR for new physical difficulty **1.23** and **1.26**, respectively

Ward et al., 2007 (Annals of Internal Medicine)

- Used data from 2000-2003 MEPS, study of health care expenditures among continuously insured, continuously uninsured, and those in transition over two year period
 - Stratified groups: uninsured one year and insured the other, insured both years, uninsured both years
- Findings:
 - Greater expenditures among all participants who were insured than those uninsured
- Conclusion: changing insurance status results in one’s spending reverting to spending levels similar to those for persons who are continuously in that status
 - In other words, someone who loses insurance and becomes uninsured reverts to the same spending level as someone who has been continuously uninsured

Olson et al., 2005 (NEJM)

- Examines extent of insurance discontinuity among children, and its effect on access to and use of ambulatory health care (well-child visits and doctors’ offices)
- Used nationally-representative data from 2000 and 2001 National Health Interview Surveys
 - Assesses unaddressed health care needs due to cost, existence of usual places of care, ambulatory visits
- Findings:
 - **6.6%** of US children had no insurance, **7.7%** had gaps in insurance
 - Characteristics:
 - Majority of part-year uninsured children were white (**57.5%**), and were more likely than full-year uninsured to have health problems
 - Children with full-year insurance had low unmet care needs and good access overall. Children uninsured part of the year or entire year had worse access. Respectively (full year uninsured vs **part-year uninsured** ; full year public vs full year private):
 - Delayed care: **15.9% vs. 20.2%**; **2.1% vs. 1.5%**
 - Unmet medical care: **12.6% vs 13.4%** ; **1.4% vs 0.7%**
 - Unfilled prescriptions: **10.0% vs. 9.9%** ; **2.8% vs. 1.0%**
 - No usual place of care: **38.0% vs. 15.0%**; **4.3%, 2.8%**
 - No well-child visit: **58.7% vs. 37.2%**; **24.2%, 26.3%**
 - No visit to doctor: **39.0% vs. 17.2%**; **11.4%, 11.1%**
 - All above statistically significant
 - Differences remain when adjusted for age, income, race/ethnicity, region, citizenship, family structure, parental employment, health status

- Odds Ratio delaying care (compared to private full-year insured) **12.65** for uninsured full-year, **13.65** for part-year
- Concludes that gaps in coverage should not be viewed as a minor problem relative to long-term lack of insurance, but as comparable
 - Finds that those with gaps forgo medical care, do not fill prescriptions, and go without preventive care visits

Lavaredda, 2008 (Med Care)

- Analysis of 2003 California Health Interview Survey sample of adults 19-64 and children 0-18, examining factors associated with and effect of discontinuous health insurance without a period of uninsurance (“switching coverage”)
- Findings:
 - Income, race/ethnicity, gender, rural status significant factors associated with switching coverage
 - Adults who switched coverage had reduced odds of having a usual source of care (OR = **0.63**) compared to those with continuous coverage
 - Adults and children switching coverage more likely to report delaying care due to cost or insurance issues (adults OR = **1.68**; children = **2.00**)
 - Children in fair or poor health switching coverage had far higher odds of delay in care (OR = **5.48**)

Cummings et al., 2009 (Pediatrics)

- Use of data from 2005 California Health Interview Survey Children’s File (age 0-11)
- Analyzes relative effects of varying periods of uninsurance on children’s access to health care, using 6 measures of health care access and controlling for demographics, health status, family characteristics, and urban residence
- Findings:
 - Children experiencing even a short (1-4 month) period of uninsurance were less likely to have a usual source of care, and more likely to experience delays in needed care compared to continuous privately and publically insured children
 - Odds of having usual source of care decrease as period of uninsurance increases: OR = **0.21** for 1-4 months, OR = **0.08** for full year
 - Adjusted Wald test comparing to continuous public coverage find that any period of uninsurance is associated with significantly lower odds of having a USOC relative to Medicaid (**P<0.01**) and SCHIP (**P<0.05**)
 - Children with longer periods of uninsurance also less likely to receive preventive care (well-child visits, flu shots) or have a doctors’ visit relative to continuous private coverage
 - Odds of having well-child visit if 1 yr uninsured = **0.29**
 - Odds of receiving flu shot if 5-11 months uninsured = **0.55**
 - Wald tests reveal same as above
 - Sensitivity analysis – Medicaid/SCHIP patients did not differ significantly from those with private insurance in their likelihood of visiting a doctor
 - Any period of uninsurance is associated with at least **3X** odds of experiencing a delay in needed medical care relative to continuous privately insured
 - Children uninsured 5-11 months have **2.8X** odds of experiencing delay in filling needed prescriptions relative to continuous privately insured

Sommers & Rosenbaum, 2011 (Health Affairs)

- Estimation of effect of ACA Medicaid expansion and state insurance exchange creation on insurance status change between Medicaid and state insurance exchanges
- Findings:
 - Authors estimate that within six months, **35%** of adults with incomes below 200% FPL will shift from Medicaid to an insurance exchange or vice-versa.
 - Within one year, **50% (28 million)** will shift eligibility