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The Oregon Health Plan

A "Bold Experiment" That Failed



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Executive Summary

The Oregon Health Plan has been called a "bold experiment" designed to expand health insurance to Oregon's lowincome residents. It sought simultaneously to expand coverage, control costs, and foster provider participation. However, like the experimental drug that performs no better than a placebo, the Oregon Health Plan has produced results that are not significantly different from the outcomes seen by the U.S. as a whole.

- **Uninsured.** Over the life of the plan, the share of uninsured in Oregon has not been significantly different from the rest of the U.S. for any sustained period of time. Similarly, over time, Oregon's share of the population covered by Medicaid is virtually no different from the rest of the U.S. Data presented by the state tended to overstate the number of uninsured prior to implementation of the Oregon Health Plan and to understate the number of uninsured after the plan was rolled out, thereby inflating the plan's early success in expanding coverage.
- **Expenditures.** Total Medicaid expenditures and Medicaid expenditures per enrollee have closely tracked U.S. expenditures, an indication that the Oregon Health Plan has not been any more or less successful than the U.S. as a whole in controlling costs.
- **Provider participation.** Initial hopes for broad participation by providers have been dashed by the pullout of larger managed care providers and a shrinking pool of providers willing to accept Oregon Health Plan enrollees as new patients.

As Oregon currently looks for ways to "reset" state government, the bold experiment of the Oregon Health Plan should be scrutinized. A program offering some type of health savings accounts to Oregon's Medicaid eligibles is one way that Oregon may meet many of the Oregon Health Plan goals at a lower cost and with smaller demands on administrative overhead. In addition to helping the state get out of the health care management business, a program of health savings accounts would save money by making the insured more aware of the expected costs and benefits of health care services. South Carolina has a similar program of Health Opportunity Accounts (HOAs) that places a set amount of funds (\$2,500 for adults and \$1,000 for children) in a personal account each year that the participant is enrolled in the program. As the enrollee receives Medicaid-covered services, the cost of the care is deducted from the account. When an enrollee with an HOA is no longer eligible for Medicaid, most of the funds left in the account can be used for job training, education or other health care expenses. The money, however, is never available to the enrollee to withdraw in cash. Because South Carolina has pioneered this approach, states like Oregon can learn from the program's successes and challenges in implementing its own program.



About the Authors

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Dr. Fruits has been invited to provide analysis to the Oregon legislature regarding the state's tax and spending policies. His testimony regarding the economics of Oregon public employee pension reforms was heard by a special session of the Oregon Supreme Court. His statistical analysis has been published in top-tier economics journals, and his testimony regarding statistical analysis has been accepted by international criminal courts. Dr. Fruits has produced numerous research papers in financial economics, with results published in Advances in Financial Economics and the Municipal Finance Journal.

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The Oregon Health Plan: A "Bold Experiment" That Failed

1 – Introduction

The Oregon Health Plan is considered by many to be a masterpiece of health care delivery for the poor. It attracted international attention when its plan of explicit rationing of care promised to provide basic health care to virtually every Oregonian living in poverty. Like most masterpieces, however, the plan has been widely admired but never duplicated. Today, the Oregon Health Plan serves as a warning to those with ambitious goals of simultaneously expanding coverage, controlling costs, and fostering provider participation. On each of these measures, Oregon's experiment has produced outcomes today that are no different from the rest of the United States.

This paper examines the goals of the Oregon Health Plan and measures the extent to which the goals were met. Bob Packwood was one of Oregon's U.S. senators during the inception of the plan and was one of its early and ardent proponents. He explained that the plan was based on three premises (Packwood, 1990):

- 1. A goal of universal access to basic health care services.
- 2. A focus on proactively maintaining and improving the health of residents rather than reactively delivering services.
- 3. A recognition of the fact that it is simply impossible to provide every resident complete access to every possible health care service.

More recently, the director of Oregon's Department of Human Services describes the goals of the Oregon Health Plan as follows (Oregon Medicaid Advisory Committee, 2010):

> The goals of the Oregon Health Plan are relatively basic - increasing access to health care coverage for lowincome Oregonians, ensuring early preventive treatment to reduce the need for more expensive health care later, and reducing increases in premiums for insured individuals whose premiums help cover the costs of uncompensated emergency care.

Identifying the goals of the Oregon Health Plan can be challenging. Advocates of the plan, beneficiaries of the plan, providers to the plan, and the taxpayers who fund the plan can each articulate different, and often conflicting, goals that have changed over time. In addition, some goals such as "proactively maintaining the health of residents," are ambiguous and cannot be quantified. The Oregon Health Fund Board (2008), however, provided the most measurable goals for the Oregon Health Plan:

- 1. Health care for the uninsured;
- 2. Broad participation by providers;
- 3. Decrease cost shifting and charity care;

- 4. A basic benefit package of effective services; and
- 5. A rational process for making decisions on how to allocate resources for health care.

The Oregon Health Plan was rolled out in the early 1990s, a period of state and national fiscal prosperity. This prosperity allowed for new federal programs expanding health insurance to children and the poor and emboldened Oregon to experiment with its attempt at universal coverage. Within two years of its rollout, the Oregon Health Plan began to see the warning signs that the plan was fiscally unsustainable. Hoped-for cost containment never materialized, provider reimbursements declined, and physicians began restricting access to Medicaid patients (Saultz, 2008). In the early 2000s, the Oregon Health Plan entered a crisis period that continues today. During this period, the plan imposed premiums and copayments on beneficiaries. Because demands for the insurance exceeded the state's ability to pay, access for many was, and still is, determined by lottery.

> "Within two years of its rollout, the Oregon Health Plan began to see the warning signs that the plan was fiscally unsustainable. Hoped-for cost containment never materialized, provider reimbursements declined, and physicians began restricting access to Medicaid patients...."

This study reviews each of the measurable goals for the Oregon Health Plan and also examines the costs of the plan over time. The research reviews existing studies of the Oregon Health Plan, including reports produced by the State of Oregon. It uses publicly available information to evaluate the plan's goals and the extent to which those goals were met.

Section 2 provides a brief background and history of the Oregon Health Plan. Section 3 describes the extent to which the plan succeeded in providing health insurance to the otherwise uninsured and reducing the rate of uninsured Oregonians. **Section 4** evaluates changes in provider participation in the plan. Section 5 examines the extent to which the Oregon Health Plan reduced the shifting of costs to hospitals and other providers and those with private insurance. Section 6 looks at how well the plan met its goals of controlling the costs of providing health care to enrollees. Section 7 provides conclusions and recommendations.

2-Background

The Oregon Health Plan was developed in the late 1980s in the face of a rapidly growing State Medicaid budget, what was thought to be a large and growing uninsured population, and limited physician participation in the Medicaid program. Oregon and other states routinely faced Medicaid budget crises, which they resolved temporarily by cutting benefits, restricting eligibility, or reducing provider payments. Oregon convened conferences and commissioned studies to address what was seen at the time as an impending crisis.

Politically, events came to a head in 1987 when Oregon's funding of major organ transplants for Medicaid recipients was discontinued. Soon after the program was defunded, a sevenyear-old boy was denied state funding for a bone marrow transplant that would have given him a 50 percent chance of survival. He died in the middle of a widely publicized fundraising campaign.² Public outcry and national attention prompted a reexamination of the criteria employed in determining who is eligible for and what is covered by the state's Medicaid program. The result was the Oregon Health Plan, a collection of legislation first introduced in 1989 and subsequently amended numerous times.

> "The Oregon Health Plan was an attempt to expand coverage to a larger share of the population without busting the state budget. To satisfy these clashing goals, the Oregon Health Plan would limit which services are covered under the plan rather than which people are covered."

John Kitzhaber is given credit for being the main architect of the Oregon Health Plan. He was an emergency room physician who later became a state senator, president of the senate, and governor. Kitzhaber opposed funding for the organ transplant program in the belief that the funds could be better spent elsewhere in the health care system. After voting against funding the transplant program, Kitzhaber was quoted as saying, "We cannot keep people alive forever. That is a part of life.... What we can do with our limited money is to try to reduce the number of deaths...to save as many people as we can save" (Beggs, 1988). In 1988, he initiated the Oregon Medicaid Priority Setting Project, which became the foundation for the Oregon Health Plan (Oregon Department of Human Services, 2006).

In general, states take two approaches to control costs in Medicaid: (1) pay providers less and/or (2) reduce the number of people eligible. The Oregon Health Plan was an attempt to expand coverage to a larger share of the population without busting the state budget. To satisfy these clashing goals, the Oregon Health Plan would limit which services are covered under the plan rather than which people are covered. Rationing would be undertaken in a transparent and methodical manner through a prioritized list of conditions and treatments called condition/treatment pairs. The Oregon Health Services Commission was created to develop the list. By law, the commission's eleven members must include five doctors, a public health nurse, and a social worker. The other four members can be either consumers or purchasers of health care services.

The Oregon Health Plan was expected simultaneously to extend coverage and to control costs in a straightforward way: A line would be drawn on the prioritized list based on how much funding the legislature allocates to the Oregon Health Plan. The plan would cover condition/treatment pairs above the line and would not cover services below the line. Pairs on the top of the list would be given higher priority than pairs at the bottom of the list. The prioritized list was based on the belief that the state could expand insurance coverage and reduce costs by eliminating coverage for treatments that were not proven effective or for conditions which improved on their own.

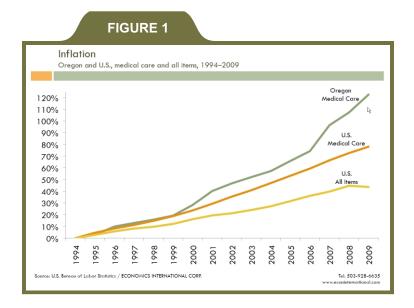
In August 1991, Oregon submitted its Medicaid waiver application to the Health Care Financing Administration (HCFA), now known as the Centers for Medicare and Medicaid Services (CMS). The extension of Medicaid coverage meant a modification of the standard services covered by Medicaid, which required the HCFA's approval of a Medicaid waiver. In March 1993, after several initial requests were denied, Oregon's waiver was approved by the Department of Health and Human Services, with 29 contingencies. The final waiver was sent to the state in December 1993 and became law on January 1, 1994. In February 1994, Oregon's Office of Medical Assistance Programs (OMAP) began implementation of the Oregon Health Plan.

Paying for the Oregon Health Plan was a challenge from the beginning. By 1995, twice as many people enrolled in the plan as expected, and the plan's budget had to be revised several times. Woodward (1995) quotes Governor Kitzhaber, who said, "The debate is not over the list any more. It's how we're going to pay for [the program]." Indeed, forecasting the future costs of any expansive and pioneering program can be virtually impossible. Even so, it was clear at the time that early projections relied on the assumption of an endless economic boom. Rojas-Burke (1999) cites one expert, who notes that part of the Oregon Health Plan's early success was because of the state's robust economy and the flattening of medical inflation between 1993 and 1997. Even so, the expert concluded, "If the economy goes down, or the inflation rate of medical care goes up, the plan is going to have problems."

Between 1999 and 2001, Oregon saw steep increases in medical care inflation (Figure 1). In addition, the 2001 recession hit Oregon especially hard—to the extent that the state never fully recovered before the current recession hit.

The substantial declines in employment and business activity produced greater demands on the Oregon Health Plan while reducing the state income tax revenues that funded much of the plan. Beginning in 2003 the Oregon Health Plan was split into two programs. OHP Plus was the original plan based on the prioritized list. This program would be available for the groups eligible for Medicaid by federal law, such as low-income mothers and children, as well as the disabled and some elderly people. OHP Plus enrollees do not pay premiums, but some adults pay small copayments. OHP Standard is a limited benefit package that covers only a limited number of uninsured adults who are not eligible for traditional Medicaid programs. Most adults who get OHP Standard must pay monthly premiums. OHP Standard does not have copayments. Today, there is a waiting list for enrollment in OHP Standard, with open spots allocated by lottery.

The remainder of this study examines the measurable goals of the Oregon Health Plan and the extent to which the goals have been met.



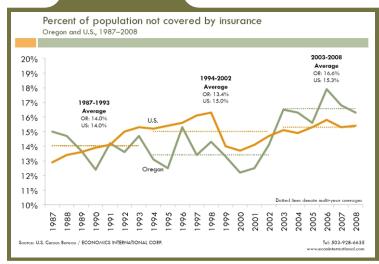
3 – Health coverage for the uninsured

Figure 2 demonstrates that Oregon's quest for universal health care coverage has not been as successful as hoped. After the Oregon Health Plan was introduced, the state saw a very small – statistically insignificant - decline in the uninsured rate. Medicaid enrollment in Oregon increased as the Oregon Health Plan was being rolled out. Since 1994, however, the percent of the state covered by Medicaid is no different from the U.S. as a whole. These observations invite the question of whether the Medicaid expansions have "crowded out" private insurance rather than expanded coverage for those who would have continued to be uninsured in its absence.

3.1. Insurance vs. access to insurance

Programs such as Medicaid and the Oregon Health Plan have at least one similarity to the financial instrument known as an

FIGURE 2



option. The holder of an option has the right, but not the obligation, to exercise that option under certain specified conditions. In many cases, government insurance programs allow eligible individuals to enroll on an as-needed basis. Because the paperwork involved in enrolling and staying enrolled in the programs can be burdensome, many eligible individuals enroll only when health care services are needed. For example, Haber et al. (2000) find that the need for emergency care is the most common motivation for joining the Oregon Health Plan. Moreover, they find that many of those who allowed their Oregon Health Plan coverage to lapse indicated that they did not want to complete the paperwork necessary to renew their eligibility if they did not have an immediate need for services.³ These respondents indicated that they understood they could reenroll in the future if they became ill. Leichter (2004) reports that a focus study commissioned by the state found that "of the few who had inquired about eligibility [in the Oregon Health Plan], most became so confused about how to fill out the forms that they just gave up." Allen et al. (2010) find a large portion of individuals eligible for OHP Standard do not follow through with enrollment because they find the paperwork a hassle or they do not have the appropriate documentation. Bernick and Myers (2008) conclude that the number of uninsured in Oregon could have decreased dramatically if those who were eligible for the various programs actually enrolled. While these individuals may be technically uninsured, they have access to insurance that they can obtain when it is needed. In addition, the ability to move in and out of the Oregon Health Plan frustrates the managed care aspects of the plan which, in turn, thwarts the plan's goals to proactively maintain health and to contain costs.

Because many individuals can enroll in government health insurance programs on an as-needed basis, the number of uninsured – especially among those in poverty – overstates the number who do not have access to insurance. For example, census data indicate that in 2008, approximately 20 percent of the state's children at or below 125 percent of the federal poverty level indicated that they were uninsured, even though nearly all of them likely would qualify for one or more government programs, including the Oregon Health Plan.

This is consistent with the findings of DeVoe et al. (2008), who studied families enrolled in Oregon's food stamp program and found that nearly 11 percent of children presumed eligible for public health insurance were uninsured.

3.2. The moving target of counting the uninsured

Measuring the number of uninsured individuals can be a moving target. For example, for many years, the State of Oregon relied on its own estimates based on a telephone survey conducted every two years.⁵ The wide year-to-year variation in the state's estimates call into question the reliability of those estimates. In fact, the last survey (2008) did not include any question regarding health insurance status. Instead, where the questions once were, the questionnaire states: "Health insurance questions removed due to data inconsistencies" (Opinion Research Northwest, 2009). In contrast to Oregon's approach, the federal government relies on a variety of surveys and statistical approaches to develop estimates that are consistent from year to year and from state to state. Revisions to the questions asked and the statistical techniques employed can result in revisions to reported estimates.

Kitzhaber and Gibson (1991) claim that in 1987, nearly 20 percent of Oregonians did not have health insurance. This claim is echoed by the Oregon Department of Human Services' claim that when the Oregon Health Plan was first proposed in the late 1980s, 18 percent of Oregon residents had no health insurance coverage. On the other hand, U.S. Census Bureau data indicate that the uninsured rate may have been substantially lower than the state's estimates. In addition, improvements to data collection techniques suggest that the number of uninsured may have been substantially overstated in the late 1980s. For example, Moyer (1989) calculates that the number of uninsured in the U.S. may have been overstated by approximately 19 percent. Indeed, more recent census estimates show that the number of uninsured in Oregon averaged 14.5 percent over the years 1987 through 1989, or 3.5 percentage points lower than the state's estimate (Figure 2). Also, census estimates indicate that Oregon's rate of uninsured (14.5 percent) at the time was not significantly different from the U.S. as a whole (13.3 percent). In this way, the Oregon Health Plan may have been a solution in search of a problem.

The questionable reliability of the state's estimates of the number of uninsured in Oregon calls into question the conclusions of Oregon's "success" in covering the uninsured. For example, Alakeson (2008), citing the Oregon Health Fund Board, notes the following:

> The plan was initially a big success. Between 1990 and 1996, the numbers of uninsured people fell in Oregon from 19.9 percent of the working age population to 7.6 percent, while the uninsured in the U.S. as a whole was on the rise.

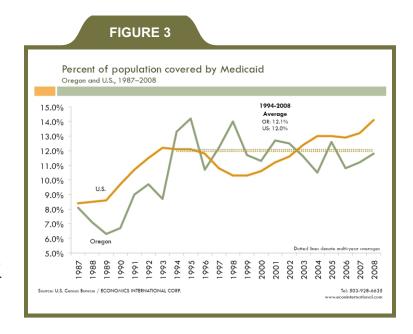
Despite the early successes touted by the state, Rojas-Burke

(1999) reports that the share of poverty-level Oregonians who lacked health coverage jumped to 23 percent in 1998, up from the 17 percent in 1996 estimated by the Oregon Population Survey.

The figures reported by the state, however, are questionable. Census data presented in Figure 2 show that in 1990, the uninsured comprised 12.4 percent of Oregon's population and 13.9 percent of the U.S. population. In 1996, the uninsured rose to 15.3 percent of Oregon's population and 15.6 percent of the U.S. population. In contrast to the state's findings, census data indicate that Oregon's uninsured population (1) was not significantly different from the U.S. as a whole, and (2) may have increased, albeit insignificantly, after the introduction of the Oregon Health Plan. Thus, one cannot confidently conclude that the Oregon Health Plan had any significant impact on the number of uninsured as a share of Oregon population.

3.3. **Expanding Medicaid coverage**

While the Oregon Health Plan cannot claim any sustained or significant decrease in the uninsured, Figure 3 shows that Medicaid enrollment in Oregon seems to have increased as the Oregon Health Plan was being rolled out. Ham (1998) calls increased Medicaid enrollment the "most important achievement" of the Oregon Health Plan. Figure 3, however, demonstrates that across the U.S. as a whole, Medicaid coverage expanded at approximately the same, or slightly faster, pace as Oregon.



Until the late 1980s, Medicaid eligibility for children had been limited to children in welfare families. Eligibility was later extended to children in two-parent families with incomes below welfare eligibility thresholds. Blumberg et al. (2000) reports that beginning in 1988, federal regulations permitted and then eventually mandated states to provide Medicaid coverage for children in higher-income families. As of April 1990, coverage became mandatory for children up to age 6 in

families with incomes up to 133 percent of the federal poverty level. As of July 1991, coverage became mandatory for children born after September 30, 1983 with family incomes up to 100 percent of poverty. Federal regulations also gave states the option of covering infants with family incomes up to 185 percent of poverty.

Census data supporting Figure 3 show that between 1988 and 1994, Medicaid coverage in the U.S. as a whole grew by 53 percent. Over the same period, Medicaid coverage in Oregon more than doubled. Caution should be exercised in attributing all of Oregon's rapid growth to the Oregon Health Plan. The plan's expansion of Medicaid coverage to those under 100 percent of the federal poverty level did not go into effect until February 1994, after a waiver was approved by the U.S. Health Care Financing Administration. Since 1994, Oregon's share of the population with Medicaid coverage (12.1 percent) has been virtually no different from the U.S. as a whole (12.0 percent). Thus, it is not obvious that the Oregon Health Plan has had any significant impact on Oregon's Medicaid coverage relative to the U.S. as a whole.

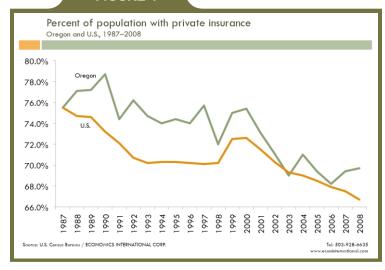
> "...[C]ensus estimates indicate that Oregon's rate of uninsured (14.5 percent) at the time was not significantly different from the U.S. as a whole (13.3 percent). In this way, the Oregon Health Plan may have been a solution in search of a problem."

3.4. Oregon Health Plan expansion and "crowding out" private insurance

Figure 4 shows that since 1987, private insurance (employmentbased and direct purchase) coverage in Oregon has declined from approximately 75 percent of the population to approximately 70 percent of the population. The figure also shows that private insurance coverage in the U.S. has experienced a similar decline. These trends invite the question of whether the Medicaid expansions have "crowded out" private insurance rather than expanding coverage for those who would have continued to be uninsured in its absence. "Crowding out" refers to two potential unintended consequences of the Medicaid eligibility expansion:

- 1. Persons with private coverage drop it in order to take advantage of subsidized public programs being offered; and/or
- 2. Some who are uninsured enroll in Medicaid rather than

FIGURE 4



obtain private coverage.

In addition, Medicaid expansion may give employers an incentive to avoid or to discontinue offering group coverage to their employees.

With crowding out, a Medicaid expansion may not have the intended effect of substantially reducing the number of uninsured. If, hypothetically, every new Medicaid enrollee was previously carrying private insurance, than the switch to Medicaid would have no net effect on the uninsured. Indeed, every entitlement program is associated with some crowding out. For example, Cutler and Gruber (1996) point out that, other things being equal, as the value of public coverage rises (e.g., amount of services offered or quality of services) then individuals will be more likely to drop their private insurance and enroll in Medicaid.

The extent to which the crowding out is significant is an empirical matter. Haber et al. (2000) note that the Oregon Health Plan did not incorporate any special provisions to mitigate crowding out. Nevertheless, they find that most of the beneficiaries covered under the plan's eligibility expansion were uninsured prior to enrolling, and only a small fraction had an alternate source of employment-based insurance. Using a telephone survey of Oregon Health Plan expansion beneficiaries, they find that less than 9 percent of expansion beneficiaries reported having access to employer-based insurance and 74 percent were uninsured prior to joining the plan. Using census data, Kronick and Gilmer (2002) conclude that the expansion of public insurance coverage in Oregon resulted in very little crowding out of private insurance.

On the other hand, Cutler and Gruber (1996) estimate that approximately 50 percent of the increase in Medicaid coverage during the 1987-1992 federal expansion was associated with a reduction in private insurance coverage. They find that the reduction in private insurance coverage occurred largely because employees took up employer-based insurance less frequently. The findings are supported by an Oregon

example of crowding out reported by Woodward (1995):

The 22 part-time employees of Old Town Pizza Co., a restaurant in Portland, offer a perfect example. They also illustrate where things might be headed if the employer mandate is repealed. Most have enrolled in the Oregon Health Plan in the last year, even though Old Town Pizza offers to pay half of the \$120-a-month premium for Kaiser Permanente's Portland-based HMO. General Manager Gianno Accuardi says he can't blame them. With hourly wages of \$5.10 to \$5.50, none of the 22 workers can afford to take him up on the offer. Their coverage is free in the state's plan, which is open to all individuals or families whose income is below the federal poverty level.

4 – Broad participation by providers

Broad participation by providers was one of the original goals of the Oregon Health Plan (Black et al., 2009). Mittler et al. (1999) observe that, as with much of the U.S., Oregon traditionally has had a shortage of physicians. At the time of their study, they estimate that 95 percent of primary care physicians participated in the OHP. Even so, they report inadequate supply and participation for some specialties. The problem is worse in the state's rural areas where many managed care providers pulled out of the plan (see Section 6.2).

A direct link between Medicaid payment levels and access to care for Medicaid beneficiaries is difficult to establish. The Lewin Group (2003), however, finds evidence that below-cost payment can negatively affect beneficiary access. In particular, they note that low physician payments can increase demands on hospital emergency rooms and other higher-cost services. In addition, in planning new projects, they find that projects that are not financially feasible due to low Medicaid payment levels and high numbers of Medicaid patients frequently are not implemented.

Oregon's physician workforce survey finds that the percent of physicians accepting no new Medicaid patients increased from 12.7 percent to 17.9 percent (OMPRO, 2005; Smith et al., 2007; Peterson et al., 2010). The Lewin Group (2003) finds that access to private primary care practitioners in Oregon has diminished over the period it studied. They report that physician practices appeared to be full and some closed to new Medicaid and Oregon Health Plan members. In addition, in one OHP-only practice, they found that 20 percent of the primary care physicians saw 80 percent of the plan's Medicaid members. In another OHP-only managed care practice, they reported that the network of pediatricians had shrunk considerably.

In each of the years of the Oregon survey, providers most frequently indicated that low reimbursement rates were a reason for limiting coverage. For example, the 2009 survey finds almost two-thirds of physicians rated Medicaid/Oregon Health Plan reimbursement as a top concern for the practice of medicine and for health care policy, up from 56.1 percent in 2006. Supporting

this finding, the Lewin Group (2003) points to research indicating that more physicians participate in Medicaid in areas with relatively high Medicaid reimbursements. Also, when surveyed on the issue, Oregon providers indicate that administrative burdens are a reason for limiting coverage.

It is likely, therefore, that physician participation is worsened by Oregon's relatively low Medicaid payments – payments so low that they are often less than the cost of care. In the first ten years of the Oregon Health Plan, Oregon's Medicaid payments annually were \$130 million less than hospital expenses. Over the same period, Medicaid payment rates increased 13 percent while hospital inflation increased 33 percent (Lewin Group, 2003). At the same time, access to Oregon private primary care practitioners diminished. After Medicaid cuts in 2003, only 23 percent of Oregon's small rural hospitals were estimated to be operating with positive incomes.

In response to lower reimbursement, doctors reported increased patient volume, increased referrals, and decreased office time (Smith et al., 2005). Consequently, the 2009 workforce survey found physician practices full and some closed to new Medicaid and Oregon Health Plan members. Primary care practices, including family practice and general internal medicine, were the most restrictive of new Medicaid members, with 25 percent and 23.6 percent, respectively, completely closed. Within hospitals, Oregon's Medicaid patients have difficulty obtaining mental health and substance abuse services. According to the 2009 workforce survey:

> [T]wo-thirds of physicians report only sometimes or never being able to find inpatient mental health services for Medicaid patients. That increases to three-quarters for outpatient health services. Substance abuse referrals follow a similar pattern.

"...[P]hysician participation is worsened by Oregon's relatively low Medicaid payments—payments so low that they are often less than the cost of care."

5-Cost shifting and charity care

"Cost shifting" has different meanings in different contexts. On one hand, it refers to the costs borne by doctors, hospitals, and other health care providers to supply health care services to the uninsured and those who cannot or will not pay for services. Such "uncompensated care" or "charity care" shifts the costs of health care from those who receive services to those who

provide the services, thereby raising providers' costs. These costs are partially passed on to paying consumers and their insurance companies. The American Hospital Association (2009) calculates that, nationwide, the cost of uncompensated care amounts to approximately 6 percent of total hospital expenses, a share that has been relatively stable since the mid-1980s.

On the other hand, Meyer and Johnson (1983) note that the direct costs of meeting the hospital needs of Medicare and Medicaid patients are reimbursed by government at rates that are less than the full economic costs of providing the services. They explain cost shifting as follows:

The shortfall in Medicare and Medicaid reimbursement of doctors and hospitals has led these health care providers to shift the unreimbursed costs of serving government to private sector payers. The shift occurs when hospitals charge some patients more for the same service than others. People who pay hospital bills themselves, or are insured by either a commercial insurance company or by an employer directly, pay more for the same service than Medicare and Medicaid beneficiaries....Simply put, through the cost shift, private patients subsidize public program beneficiaries.

Rutledge (1997) estimates that a variety of factors reduced cost shifting to the commercially insured population by more than \$72 million in 1996. He attributes \$22 million to a reduction in uncompensated care and more than \$50 million to an increase in net Medicaid revenues.

There have been indirect impacts on other payers because of the reduction in uncompensated care. Thorne (1995) reports that hospitals in Oregon compared data for the 12 months immediately prior to the Oregon Health Plan with the first 12 months after the plan was introduced and found a reduction of more than 30 percent in charity care. Similarly, the Office for Oregon Health Plan Policy and Research (2000) reports a 30 percent decline in hospital charity care over the years 1994 to 1999, a finding that is consistent with Figure 5. The figure,

Costs to hospitals of uncompensated care, per capita
Oregon and U.S., 1987–2008

1994-2008
Percent Increase
OR: 108%
U.S.

\$60

\$40

Oregon

U.S.

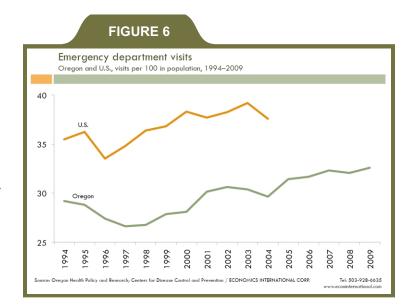
Source: Oregon Association of Hospitals and Health Systems; American Hospital Association; U.S. Census Bureau

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however, also shows that since 1999, the per capita costs of hospital uncompensated care more than tripled from \$31 per capita in 1999 to \$111 per capita in 2008.

In 2003, the Oregon Health Plan made substantial changes in its benefit package that resulted in the disenrollment of more than 50,000 beneficiaries. In a study comparing emergency department visits in the year before and the year after the change, Lowe et al. (2008) found a 20 percent increase in uninsured emergency department visits. In addition, they found that the number of Oregon Health Plan sponsored visits decreased.

The Office for Oregon Health Plan Policy and Research (2000) reports a 10 percent decline in emergency room usage over the years 1994 to 1999. Even so, Figure 6 suggests that caution should be exercised in attributing the decline to the introduction of the Oregon Health Plan. Oregon's emergency room visits, per 100 of population, are below the national average. Over the years 1994 to 2004, however, changes in Oregon emergency room visits over time (i.e., the trend in visits) have not been significantly different from the U.S. as a whole. Thus, it is not clear that the Oregon Health Plan has had any measurable impact on the emergency room usage over the life of the plan.



6-Costs of the Oregon Health Plan

To expand coverage to a larger share of the state's population, the architects of the Oregon Health Plan recognized that costs had to be contained. Two of the ways in which the plan was expected to contain costs include the following:

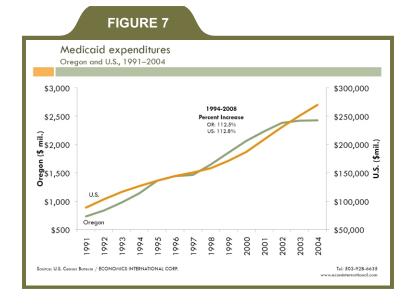
- 1. The prioritized list would give priority to cost-effective services. Indeed, the basic benefit package would explicitly exclude services deemed to be insufficiently cost-effective (Brown, 1991).
- 2. Beneficiaries would have to enroll in managed care plans (i.e., plans that have an incentive to control costs). Almost all managed care contracts would be

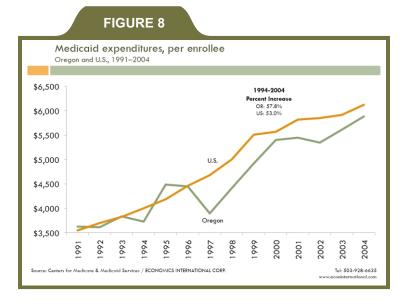
fully capitated, with the state paying an average \$148 a month per person in 1995 (Woodward, 1995). 10 Vanchiere (1994) explains that capitation encourages health plans to control service use and to deliver cost effective service, which has been seen as one approach to containing medical costs while providing access to care.

Kitzhaber (1993) summarizes the thinking behind this twopronged approach:

[T]he real costs in the health care system are driven not by what physicians earn but rather by what physicians do. Through their individual decisions regarding patients, physicians control over 70 percent of the health care budget, as they decide who will be hospitalized and for what and how often, who will get which procedure, and what drugs to use.

Despite the state's projections of cost containment, Wiener (1992) reports that the Congressional Budget Office estimated that the incremental cost of providing the proposed Medicaid benefit package would have been two to three times larger than





the costs calculated by the state. Figures 7 and 8 show that total spending and spending per enrollee on Oregon's Medicaid program has grown at approximately the same rate as the U.S. as a whole. Thus, it is not evident that the Oregon Health Plan has been any more or less successful than the U.S. as a whole in controlling costs.

6.1. The role of the prioritized list in controlling costs

The Oregon Health Plan was born out of a debate over state funding for organ transplants with a low probability of success. A goal of the plan was to give priority to those services with the biggest "bang for the buck." Under this plan, the state would be more likely to fund relatively inexpensive services that had the best chance of saving lives or improving the quality of life for recipients and less likely to fund expensive procedures that had little chance of prolonging or improving lives. In this way, the prioritized list was expected to control health care costs and ensure that taxpayer dollars were used effectively. The mandated line drawn on the list, above which services would be funded and under which services would not be funded, would limit spending on the Oregon Health Plan. This theoretical ideal almost immediately ran into the real-world question of how to measure "bang for the buck." In the late 1990s, the federal Health Care Financing Administration (now the Centers for Medicare and Medicaid Services) began denying Oregon's requests to move the line upward. Goldsmith (2003) quotes then Governor Kitzhaber:

> For all practical purposes, HCFA has refused to allow us to change the priority line since mid-1997. So we've had a very rich and fixed benefit, and no tools with which to manage the cost of the Oregon Health Plan.

To contain costs, the plan introduced premiums and copayments and reduced the number of individuals covered by the Oregon Health Plan. Wallace et al. (2008), however, conclude that the introduction of copayments shifted treatment patterns, but did not reduce total expenditures by the plan.

Tengs (1996) explains that cost-effectiveness initially was used to produce a tentative prioritized list in 1990. This list was rejected, largely because the ranking conflicted with widely held common sense expectations, as explained by Dixon and Welch (1991):11

> The list ranked 1,600 medical treatments and contained serious flaws. The major difficulties related to inaccurate cost and effectiveness data. This led to some widely criticized rankings: reconstructive breast surgery was ranked more highly than treatment for open fracture of the thigh, and treatment for crooked teeth came higher than treatment for Hodgkin's lymphoma. Transplantation was again near the bottom of the list as was treatment for AIDS – primary care was near the top.

A new list was crafted in 1991 by assigning medical services to categories and ranking the categories, but this list was also rejected. Two more lists were developed in 1992 and 1993 using completely different ranking approaches. The 1993 list was ultimately implemented. This list, however, did not make use of categories and was not ranked by cost-effectiveness. In fact, Tengs et al. (1996) and Oberlander et al. (2001) find that subjective judgment as well as improvement in five-year survival – not cost-effectiveness – were the key determinants of the 1993 list. In this way, Tengs (1996) argues that cost effectiveness was effectively abandoned in the Oregon Health Plan's prioritized

With the de facto abandonment of cost effectiveness to subjective judgment as a prioritization criterion, Oberlander (2006) reports that concerns about subjecting Medicaid beneficiaries to rationing were calmed by a benefit package that was considered by many to be generous. He finds that there had been no widespread rationing of services in the state and that the total number of services excluded from the list has been relatively small and their medical value generally marginal (Oberlander et al., 2001). Indeed, he argues that the Oregon Health Plan's coverage of mental health and dental care was considered superior to commercial insurance in Oregon. In other words, the prioritized list did little to ration health care services.

Oberlander et al. (2001) reports that, notwithstanding the prioritized list, many Medicaid recipients continued to receive services that were intended to be excluded from Oregon Health Plan coverage. For example, he reports that patients with multiple conditions, some covered and some not, have been diagnosed with the conditions covered by the list in efforts by physicians to obtain coverage for services that otherwise would not have been covered by the plan. More importantly, he points out that the plan pays for all diagnostic visits and procedures even if the associated treatment is not covered. Physicians have used this provision as a loophole to provide medical services under the guise of diagnostics. DiPrete and Coffman (2007) conclude that diagnostic services "are very expensive and growing even more costly every year." Opportunistic use of these features of the Oregon Health Plan frustrate the cost containment goals of the plan.

The combination of factors – reliance of subjective judgment in prioritization, a relatively generous benefit package, the creation and use of "loopholes" by providers, and federal limits on moving the line – diminished many of the architects' anticipated cost savings from the prioritized list. Jacobs et al. (1999) reports that Oregon Health Plan administrators estimated that the list saved the state only two percent on total costs for the program over its first five years of operation.

6.2. Managed care in the Oregon Health Plan

Shifting Medicaid enrollees into managed care was a key component of the Oregon Health Plan. The state received permission to restrict freedom-of-choice of providers so that the state could take advantage of the anticipated cost savings associated with prepaid managed care delivery (Fox and Leichter, 1993). Woodward (1995) explains that the shift to managed care was anticipated to help accomplish three goals:

- 1. Enhance primary and coordinated care;
- 2. "Mainstream" the Medicaid population; and
- 3. Stabilize and contain costs.

In 1995, Woodward (1995) reports that approximately two-thirds of the Medicaid population had enrolled in managed-care plans, with almost all contracts fully capitated, meaning that the state paid the provider a set amount per month per enrollee.

> "The combination of factors—reliance of subjective judgment in prioritization, a relatively generous benefit package, the creation and use of 'loopholes' by providers, and federal limits on moving the line—diminished many of the architects' anticipated cost savings from the prioritized list."

It has been argued that managed care would reduce emergency room visits (Conviser, 1996). In addition, many assume that emergency room usage accounts for a substantial amount of health care expenditures by Medicaid enrollees. Handel et al. (2008), however, find that emergency department expenses are a relatively small share of total medical spending by those on Medicaid. They estimate that a 25 percent reduction in emergency department expenditures - a reduction they characterize as "aggressive" - would reduce Medicaid expenditures by less than 2 percent. Saha et al. (2007) find that annual preventable hospitalization rates among those enrolled in Medicaid and the uninsured increased after the Oregon Health Plan's eligibility expansion, from an average of 46.1 to 54.9 per 10,000 persons. The authors find that the increase in preventable hospitalizations for this group can be explained by an increase in rates for those that are newly insured by Medicaid. In addition, they argue that access to primary care indirectly decreases the incidence of preventable hospitalizations. At the same time, access to hospital care directly increases the incidence of preventable hospitalizations.

Jacobs et al. (1999) report that Oregon Health Plan administrators estimated that the increased reliance on managed care accounted for 6 percent of savings off the total costs of the program in the first five years of the plan. In the first years of the program, Hamilton (1995) reported that 340,000 beneficiaries were enrolled in 20 managed care organizations. However, even in the early years of the program, concerns arose about whether the plan could retain providers. When asked if he was concerned that doctors, particularly medical groups that were losing money under the Oregon Health Plan, would drop out of the program, Kitzhaber responded, "I don't think that's a risk right now [1997]. We've had some drop out, but the big groups are still there. And you have to ask how they'd replace those patients if they did drop out" (Azebedo, 1997). Even so, Bodenheimer (1997) reports that by 1996, the three for-profit managed care plans dropped out of the Oregon Health Plan, with others dropping out in subsequent years.

The pullout of providers was most pronounced in rural areas that had neither a large provider network nor a "critical mass" of patients. Regence HMO Oregon, which began offering plan service in 34 Oregon counties, had pulled out of 23 rural counties between 1996 and 1999 (Jones, 1999). ODS Health Plans stopped offering the state plan in three rural counties because of nearly \$1 million in losses. Sure Care of Roseburg offered the health plan in two rural counties (Douglas and Lincoln) but abandoned both by 1999. By 2000, Kaiser Permanente pulled out of the rural counties of Columbia, Linn, Benton, and Yamhill and exited the plan completely in 2002 (Rojas-Burke, 2000a; Tom 2002). In addition, by 2000, Regence completely exited the Oregon Health Plan, while Providence Health Plans and ODS Health Plan pulled out of the Portland area markets (Rojas-Burke, 2000b). Despite the pullout of providers, currently 80 percent of Oregon Health Plan beneficiaries are enrolled in a fully capitated managed care plan (Oregon Department of Human Services, 2010). Because it is impossible to measure what the costs would be without managed care, there is no way to measure the long-run savings associated with the Oregon Health Plan's reliance on managed care.

7 - Conclusions and recommendations

The Oregon Health Plan has been called a "bold experiment" (Leichter, 1999). It sought simultaneously to expand coverage, control costs, and foster provider participation. Like the experimental drug that performs no better than a placebo, the Oregon Health Plan has produced results that are not significantly different from the outcomes seen by the U.S. as a whole. Over the life of the plan, the share of uninsured in Oregon has not been significantly different from the rest of the U.S. for any sustained period of time. Similarly, over time, the share of the population covered by Medicaid is virtually no different from the rest of the U.S. Total Medicaid expenditures and Medicaid expenditures per enrollee have closely tracked U.S. expenditures, an indication that the Oregon Health Plan has not been any more or less successful than the U.S. as a whole in

controlling costs. Initial hopes for broad participation by providers have been dashed by the pullout of larger managed care providers and a shrinking pool of providers willing to accept Oregon Health Plan enrollees as new patients. The result is a unique state health care bureaucracy that has achieved approximately the same outcomes that a less ambitious program likely would have achieved.

As Oregon currently looks for ways to "reset" state government, the bold experiment of the Oregon Health Plan should be scrutinized. A program offering health savings accounts to Oregon's Medicaid eligibles is one way that Oregon might meet many of the goals of the Oregon Health Plan at a lower cost and with smaller demands on administrative overhead. In addition to helping the state get out of the health care management business, a program of health savings accounts will save money by making the insured more sensitive to the expected costs and benefits of health care services. It will give them an incentive to manage their health care spending in such a way that it balances spending on preventive care in the near term against the possibility of spending on acute care in the future. In addition, in countries with health savings accounts, individuals have been shown to recognize directly the cost of lifestyle choices on their health.

A health savings account approach to Medicaid is not especially radical. South Carolina has such a program. Beginning in 2008, certain healthy adults and children who have been eligible for Medicaid for at least three months can choose to enroll in what the state calls a Health Opportunity Account (HOA). The accounts are part of a five-year pilot program that allows Medicaid eligibles to manage the cost of their Medicaid services. The accounts have the effect of rewarding the enrollee for enrolling in managed care, staying healthy, and obtaining preventive care. Under the plan, the state places a set amount of funds (\$2,500 for adults and \$1,000 for children) in the account each year the participant is enrolled in the program. As the enrollee receives Medicaid-covered services, the cost of the care is deducted from the account. Funds can be used for Medicaidcovered services only. Payments from the account are made directly to the Medicaid-enrolled provider. The costs of preventive care, such as an adult's physical or child's well care or immunizations, are not deducted from the account. If the enrollee spends all the money in their account before the end of the year, the enrollee pays an out-of-pocket deductible (\$250 for adult and \$100 for child). When an enrollee with an HOA is no longer eligible for Medicaid, most of the funds left in the account can be used for job training, education or other health care expenses. The money, however, is never available to the enrollee to withdraw in cash.

The recent federal health care and health insurance overhaul legislated this year may lead to the eventual demise of health savings accounts. Whether or not such a program is viable here, Oregon should reconsider its commitment to the Oregon Health Plan as currently structured. It is likely that a return to a "traditional" Medicaid program may provide the same coverage and same results at a lower overall cost to the state.

Oregon's "bold" experiment with the Oregon Health Plan

has been thoroughly tested. It has gone through more than fifteen years of economic and fiscal boom and bust cycles. In the end, the experiment has failed to achieve its promoters' goals simultaneously to expand coverage, control costs, foster provider participation, and maintain fiscal sustainability.

Endnotes

- 1. Alakeson (2008) suggests that South Africa has adopted Oregon's approach. Patel et al. (2007), however, indicates that, rather than an overhaul based on Oregon's approach, the country has considered a prioritized list as a way to mandate coverage by private health plans.
- 2. See, for example, Beggs (1988); Bodenheimer (1997); Ruble (1987); and Wiener (1992).
- 3. See also Cutler and Gruber (1996).
- 4. Allen, et al. (2010) points out that unlike standard Medicaid programs, OHP Standard does not allow people the option to enroll only when they require medical care. People selected from the list have a limited time to apply for insurance, after which they are no longer eligible to apply.
- 5. In general, figures reported by the state are from the Oregon Population Survey, a statewide telephone survey of Oregon households conducted by the Oregon Progress Board, a state government agency. The legislature eliminated the Oregon Progress Board as of mid-2009.

- 6. See U.S. Census Bureau (2007) for a detailed description of the approach. See Office for Oregon Health Policy and Research (2007) for a description of the differences between Oregon's population survey and the federal Current Population Survey.
- 7. See, for example, Oregon Department of Human Services (2006, 2004).
- 8. See also Monheit (1994). Note that the U.S. Census Bureau (2007) indicates that it revised the data to improve the consistency of estimates for the insured and uninsured.
- 9. See also Boyd (2003).
- 10. Capitation refers to a method of paying health care service providers in which physicians are paid a set amount for each enrolled person assigned to that physician or group of physicians, whether or not that person seeks care, per period of time. Since capitation reimburses physicians the same amount, regardless of the amount of care provided, the provider has an incentive to minimize the expected present value of the lifetime costs of care for the enrollee.
- 11. See also Blumstein (1997).

Sources

Alakeson, V. (2008). Why Oregon went wrong. BMJ: British Medical Journal, 337:900901.

Allen, H., Baicker, K., Finkelstein, A., Taubman, S., Wright, B. J., and Oregon Health Study Group (2010). What the Oregon Health Study can tell us about expanding Medicaid. Health Affairs, 29(8):14981506 American Hospital Association (2009). Uncompensated hospital care fact sheet.

Azebedo, D. (1997). "Some doctors have done very well." Interview with John Kitzhaber. Medical Economics, 74(15):4854.

Beggs, C. E. (1988). Oregon cuts off funds for transplants. Associated Press. May 23.

Bernick, E. M. and Myers, N. (2008). Treatment or placebo: Are state programs decreasing the proportion of uninsured? Policy Studies Journal, 36(3):367384.

Black, C., Greenlick, M., Smith, J., and Streisinger, C. (2009). Health policy in Oregon: Two decades of reform efforts. Presentation to State Coverage Initiatives Annual Meeting for State Officials

Blumberg, L. J., Dubay, L., and Norton, S. A. (2000). Did the Medicaid expansions for children displace private insurance? An analysis using the SIPP. Journal of Health Economics, 19(1):3360.

Blumstein, J. F. (1997). The Oregon experiment: The role of cost-benefit analysis in the allocation of Medicaid funds. Social Science & Medicine, 45(4):545554.

Bodenheimer, T. (1997). The Oregon Health Plan: Lessons for the nation, first of two parts. New England Journal of Medicine, 337(9):651655.

Boyd, D. J. (2003). The bursting state fiscal bubble and state Medicaid budgets. Health Affairs, 22:4661.

Brown, L. D. (1991). The national politics of Oregon's rationing plan. Health Affairs, 10(2):2951.

Conviser, R. (1996). A brief history of the Oregon Health Plan and its features. State of Oregon Office for Health Policy and Research. http://www.oregon.gov/OHPPR/docs/histofplan.pdf.

Cutler, D. M. and Gruber, J. (1996). Does public insurance crowd out private insurance? Quarterly Journal of Economics, 111(2):391430.

DeVoe, J. E., Krois, L., Edlund, C., Smith, J., and Carlson, N. E. (2008). Uninsured but eligible children: Are their parents insured? Recent findings from Oregon. Medical Care, 46(1):38.

DiPrete, B. and Coffman, D. (2007). A brief history of health services prioritization in Oregon. Prepared for Oregon Health Services Commission.

Dixon, J. and Welch, H. G. (1991). Priority setting: Lessons from Oregon. Lancet, 337(8746):891894.

Fox, D. M. and Leichter, H. M. (1993). State model: Oregon: The ups and downs of Oregon's rationing plan. Health Affairs, 12(2):6670.

Goldsmith, J. (2003). The road to meaningful reform: A conversation with Oregon's John Kitzhaber. Health Affairs, 22(1):114124.

Haber, S. G., Khatutsky, G., and Mitchell, J. B. (2000). Covering uninsured adults through Medicaid: Lessons from the Oregon Health Plan. Health Care Financing Review, 22(2):117.

Sources Continued

Ham, C. (1998). Retracing the Oregon Trail: The experience of rationing and the Oregon Health Plan. BMJ: British Medical Journal, 316(7149):19651969.

Hamilton, J. (1995). Oregon finds happy contrast to TennCare. Commercial Appeal. January 29.

Handel, D. A., McConnell, K. J., Wallace, N. T., and Gallia, C. A. (2008). How much does emergency department use affect the cost of Medicaid programs? Annals of Emergency Medicine, 51(5):614621.

Jacobs, L., Marmor, T., and Oberlander, J. (1999). The Oregon Health Plan and the political paradox of rationing: What advocates and critics claimed and what Oregon did. Journal of Health Politics, Policy & Law, 24(1):161180.

Jones, S. D. (1999). Oregon prepares to revise its struggling health plan. Wall Street Journal. April 28.

Kitzhaber, J. A. (1993). The Oregon Health Plan: A process for reform. Journal of Bone and Joint Surgery, 75(7):10741079.

Kitzhaber, J. A. and Gibson, M. (1991). The crisis in health care – The Oregon Health Plan as a strategy for change. Stanford Law & Policy Review, 3:6472.

Kronick, R. and Gilmer, T. (2002). Insuring low-income adults: Does public coverage crowd out private? Health Affairs, 21:225239.

Leichter, H. M. (1999). Oregon's bold experiment: Whatever happened to rationing? Journal of Health Politics, Policy & Law, 24(1):147160.

Leichter, H. M. (2004). Obstacles to dependent health care access in Oregon: Health insurance or health care? Journal of Health Politics, Policy & Law, 29(2):237268.

Lewin Group (2003). Analysis of Medicaid reimbursement in Oregon. Prepared for Oregon Association of Hospitals and Health Systems.

Lowe, R. A., McConnell, K. J., Vogt, M. E., and Smith, J. A. (2008). Impact of Medicaid cutbacks on emergency department use: The Oregon experience. Annals of Emergency Medicine, 52(6):626634.

Meyer, J. A. and Johnson, W. R. (1983). Cost shifting in health care: An economic analysis. Health Affairs, 2(2):2035.

Mittler, J., Gold, M., and Lyons, B. (1999). Managed care and low-income populations: Four years' experience with the Oregon Health Plan. Kaiser/Commonwealth Low-Income Coverage and Access Project.

Monheit, A. C. (1994). Underinsured Americans: A review. Annual Review of Public Health, 15:461485.

Moyer, M. E. (1989). A revised look at the number of uninsured Americans. Health Affairs, 8(2):102110.

Oberlander, J. (2006). Health reform interrupted: The unraveling of the Oregon Health Plan. Health Affairs, 26(1):w96w105.

Oberlander, J., Marmor, T., and Jacobs, L. (2001). Rationing medical care: Rhetoric and reality in the Oregon Health Plan. CMAJ: Canadian Medical Journal, 164(11):15831587.

Office for Oregon Health Plan Policy and Research (2000). The Oregon Health Plan and Oregon's health care market. Report to the 71st Legislative Assembly.

Office for Oregon Health Policy and Research (2007). Profile of Oregon's uninsured, 2006.

OMPRO (2005). 2004 Oregon physician workforce survey: Report of results. Presented to Oregon Department of Human Services, Health Services, Office of Medical Assistance Programs; Oregon Medical Association; and Office for Oregon Health Policy and Research.

Opinion Research Northwest (2009). 2008 Oregon Population Survey technical report. Oregon Progress Board.

Oregon Department of Human Services (2004). The Oregon Health Plan: An historical overview. Office of Medical Assistance Programs. http://www.oregon.gov/DHS/healthplan/datapubs/ohpoverview0204.pdf.

Oregon Department of Human Services (2006). Oregon Health Plan: An historical overview. Office of Medical Assistance Programs. http://www.oregon.gov/DHS/healthplan/datapubs/ohpoverview0706.pdf.

Oregon Department of Human Services (2010). Oregon Health Plan 2: Section 1115 quarterly report. Quarter 2.

Oregon Health Fund Board (2008). Oregon Health Plan 101.

Oregon Medicaid Advisory Committee (2010). DMAP proposed key performance measures 2011-13 legislative session.

Packwood, B. (1990). National policy perspectives: Oregon's bold idea. Academic Medicine, 65(10):632633.

Patel, R., Wadee, H., and Pearmain, D. (2007). Development of an essential healthcare package (EHP) proposal for Medical Aid Schemes in South Africa's transition towards SHI. Prepared for Board of Healthcare Funders of Southern Africa.

Peterson, J. M., Gallia, C., Wetherson, S., and Appachar, R. (2010). 2009 physician workforce survey. Oregon Department of Human Services, Division of Medical Assistance Programs.

Rojas-Burke, J. (1999). Oregon's poor slip from safety net of health coverage. Oregonian. March 29.

Rojas-Burke, J. (2000a). HMO's exit leaves rural care scarce. Oregonian. July 7.

Rojas-Burke, J. (2000b). Oregon subsidized health care at risk. Oregonian. November 30.

Ruble, W. (1987). Boy needs bone marrow transplant to live. Oregonian, page B4. November 10.

Rutledge, K. M. (1997). The Oregon Health Plan: Lessons learned. Healthcare Financial Management, 51(4):48.

Saha, S., Solotaroff, R., Oster, A., and Bindman, A. B. (2007). Are preventable hospitalizations sensitive to changes in access to primary care? The case of the Oregon Health Plan. Medical Care, 45(8):712719.

Saultz, J. W. (2008). Defining basic health benefits: Lessons learned from the Oregon Health Plan. Family Medicine, 40(6):433437.

Smith, J., Boone, J., Gallia, C., and Edlund, T. (2005). 2004 Oregon physician workforce survey: Analysis of the primary care and medical & surgical specialties. Presentation to Oregon Health Research and Evaluation Collaborative.

Smith, J., Edlund, T., Kolmer, S., Day, H., Oliver, J., and Breitenstein, T. (2007). Oregon physician workforce survey. Oregon Department of Human Services, Division of Medical Assistance Programs and The Oregon Medical Association.

Sources Continued

Tengs, T. O. (1996). An evaluation of Oregon's Medicaid rationing algorithms. Health Economics, 5:171181.

Tengs, T. O., Meyer, G., Siegel, J. E., Pliskin, J. S., Graham, J. D., and Weinstein, M. C. (1996). Oregon's Medicaid ranking and cost-effectiveness: Is there any relationship? Medical Decision Making, 16(2):99107.

Thorne, J. I. (1995). Testimony to U.S. House of Representatives, Committee on Commerce, Subcommittee on Health & Environment. July 26.

Tom, S. (2002). Kaiser drops health plan. Statesman Journal. September 25. U.S. Census Bureau (2007). Revised CPS ASEC health insurance data. http://www.census.gov/hhes/www/hlthins/data/usernote/index.html.

Vanchiere, C. G. (1994). Stalled on the road to health care reform: An analysis of the initial impediments to the Oregon demonstration project. Journal of Contemporary Health Law & Policy, 10:405437.

Wallace, N. T., McConnell, K. J., Gallia, C. A., and Smith, J. A. (2008). How effective are copayments in reducing expenditures for lowincome adult Medicaid beneficiaries? Experience from the Oregon Health Plan. Health Services Research, 43(2):515530.

Wiener, J. M. (1992). Oregon's plan for health care rationing: Bold initiative or terrible mistake? Brookings Review, 10(1):2631.

Woodward, S. (1995). Philosophy collides with finance. Business & Health, 13(5):5156.

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