

A Comparative Expected Value Analysis Study to Determine if Health Insurance Coverage for Doctor Visits, Lab Tests, Imaging, Prescription Drugs, Urgent Care and Emergency Care Visits in The United States Provides Financial Benefit for The Non-Chronically ILL Insured That Meet Their Deductible and The Non-Chronically ILL Insured That Do Not Meet Their Deductible

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ABSTRACT: It was found that eighty-percent of the insured non-chronically ill do not reach their deductible and receive no financially benefit from health insurance coverage. It was also found that there was little to no difference in out-of-pockets costs between the insured that don't meet their deductible and the uninsured when it came to primary care visits, tier one prescription drugs, lab work, X-rays, CT scans, MRI scans, Ultrasounds, Mammograms, urgent care and emergency department visits. Further, uninsured patients that shop around for care financially benefit from lower out-of-pocket costs than the insured that have not yet reached their deductible and access care with in-network healthcare provider.

KEYWORDS: Primary Care Visits, Urgent Care Visits, Emergency Department Visits, Prescription Drugs, Blood Work, MRI Scans, CT Scans, Mammograms, X-rays, CT Scan, Deductibles, Co-Payments, Health Insurance.

I. INTRODUCTION

In 2010, President Obama signed the Patient Protection and Affordable Care Act. A key component of this legislation was the individual mandate: the requirement to purchase a minimum amount of health insurance (Covered California, 2023) that was backed up with a financial penalty. In 2017, President Trump signed legislation that reduced that financial penalty to \$0, implemented in 2019.

In 2020, the California legislature passed a law that created a state-wide individual mandate (because the federal mandate was no longer in effect). This individual mandate also includes financial penalties for failure to maintain health insurance. Several other states have individual mandates, but most do not.

Individuals in the United States may be required to purchase health insurance (if they live in a state with a mandate). But for most residents, the decision to purchase health insurance is based on personal and economic factors including the cost and real or perceived benefits.

According to the 2024 Health Benefits Survey, the average annual cost for health insurance coverage premiums for a family of four was \$25,572 and the average deductible amount was \$10,310 (KFF, 2024). Most health insurance

plans use co-payments, deductibles and coinsurance to reduce overutilization and to help cover the cost of care. Co-payments are a set amount that patients must pay for the service often ranging from \$10 to \$100. A deductible is the amount the patient must pay out-of-pocket for their health services before health insurance coverage starts sharing the cost of care. Patients are responsible for the full cost of services until the deductible amount has been reached. According to Ryan (2015), more than 80% of the non-chronically ill insured don't reach their deductible in any given year, thus they receive no value from their health insurance.

II. RESULTS

Primary Care Visits - More than 84% of all primary care physician office visits involve medication therapy (CDC, 2023). The co-payment to see a primary care doctor varies depending on the insurance plan and the type of service sought. Most health insurance policies require co-payments, which average \$25 (\$10 to \$50 range) for primary care visits if the patient is insured and has met their deductible (AI, 2025). If the patient hasn't met their deductible they will pay the full allowable amount for the visit, which can be as much as \$100 or more. However, the cost of primary care visit

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without insurance at CVS Minute Clinic (CVS.com) starts at \$59 for common illnesses and chronic conditions, \$75 at Teladoc.com for a standard telehealth visit, \$82 at MDLive.com and \$75 at Doctor on Demand (doctorondemand.com). Amazon Prime members can receive 24/7 on-demand care via Video Chat or Treat Me Now, In-app health records and care plans, Convenient prescription refill, secure messaging with a provider and renewal requests for \$99 a year by signing up on health.amazon.com. Amazon Prime members can add up to five family members for \$6/month each. The net financial benefit of having insurance would be \$10 ($\$50 * .20$) since only 20% of the insured have met their deductible. In 2018, only 30% of the insured had a primary care visit (Yang, 2023) resulting in an annual financial benefit of ($\$10 * .30$) of \$3. The net financial benefit of having health insurance coverage for a primary care visit would be \$3 per year for those who have no insurance or those who have insurance and have not met their deductible. The insured who have not yet reached their deductible, which is 80% of the population, end up paying the same for their primary care visit as the uninsured or often more. Therefore, health insurance for primary care visits does not provide economic value.

Prescription Drugs - The average co-payment is \$12 for first-tier drugs, \$36 second-tier drugs, \$65 for third-tier drugs, and \$128 for fourth-tier drugs for those with health insurance (KFF, 2024). Walmart’s low-cost prescription program prices generic drug prescriptions starting at \$4 for a 30-day supply and \$10 for a 90-day supply for patients without insurance to treat diabetes, heart health, & blood pressure, mental health, digestion, thyroid, etc. (Walmart.com). The average co-payment of \$12 by the insured is \$2 more than the \$10 out-of-pocket cost for first-tier generic drug prescription so the insured received no economic benefit over uninsured.

Blood Work - The cost for complete blood count (CBC) lab work without insurance is \$29 at both LabCorp and Quest, two large, independent labs (Arnold-Ratliff, 2024) and rates as low as \$20 can be found at Ulta Lab Tests (ultalabtests.com) If the deductible has been met by the insured, then co-payment ranges from \$20–\$100 (AI, 2025), which is about the same price as a patient would pay if they had no insurance or if they have insurance and the deductible has not been met. There is no financial economic benefit for being insured since the average co-payment by the insured out-of-pocket is about the same amount paid by the uninsured or insured that has not met their deductible.

Urgent Care - Urgent cares have on-site X-ray and lab services available to aid diagnosis and treat of minor injuries

like cuts, scrapes, minor burns and sprains as well as sudden onset of illness like fever, cough, sore throat, earaches, sinus pain, eye infections or irritation and mild allergic reactions. The use of medical equipment for diagnosis, treatment and prescription medications are extra costs to be covered by the patient that aren’t included (Fay, 2024). This seems to suggest that the insured who have not yet reached their deductible, which is 80 percent of non-chronically ill insured individuals, will pay a similar amount as the uninsured so they will not receive economic benefit from the purchase of health insurance on urgent care visits. The average cost of an urgent care visit by the insured is \$150 (\$100 - \$200 range), while the average cost for uninsured patients is \$175, resulting in a net benefit of \$25 for the insured and have met their deductible. According to Ryan (2015), 80% of the non-chronically ill insured do not meet their deductible. The net financial benefit of having insurance would be \$5 ($\$25 * .20$) since only 20% of the insured have met their deductible. In 2019, 29.2% of adults had one or more urgent care centre or retail health clinic visits in the past 12 months (Black & Adjaye-Gbewonyo, 2025) reducing the \$5 net financial benefit to \$1.46 ($\$5 * 29.2\%$). The net financial benefit of having health insurance coverage for an urgent care visit would be \$1.46 per year for those who have insurance and have met their deductible.

Emergency Department - Emergency departments typically treat patients with severe chest pain, difficulty breathing, severe bleeding, stroke symptoms, lost consciousness, stroke symptoms and major trauma cases. The out-of-pocket costs for an emergency department visit averages \$1,711 without insurance and \$1,150 with insurance (San Filippo and Marticio, 2023) resulting in a financial net benefit of \$561 for the insured. According to Ryan (2015), 80% of the non-chronically ill insured do not meet their deductible. The net financial benefit of having insurance would be \$112.20 ($\$561 * .20$) since only 20% of the insured have met their deductible. Only 19% of those living in the United States visit the emergency department each year (Cairns, Ashman & King, 2022) reducing the \$112.20 net financial benefit to \$21.32 ($\$112.20 * .19$). The net financial benefit would be further eroded based on the fact that only 29% of the emergency department visits were deemed necessary (Becker’s, 2013) resulting in a further reduced net financial benefit of an emergency department visit to \$6.18 ($\$21.32 * .29$) in any given year. The net financial benefit of having health insurance coverage for an Emergency Department visit would be \$6.18 per year for those who have insurance and have met their deductible.

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Magnetic Resonance Imaging (MRI) Scan - The average MRI co-payment in the United States for the insured is \$200 (\$100 - \$300 range) provided the insured has met their deductible (AI, 2025). Insured patients that have not met their deductible will have to pay the full amount for the MRI. Uninsured patients or patients that have not yet reached their deductible can book directly with on-line imaging sites like Radiology Assist (radiologyassist.com) for an MRI for \$265. According to Ryan (2015), 80% of the non-chronically ill insured do not meet their deductibles. The net financial benefit for having insurance would be \$13 ($\$65 \times .20$) since only 20% of the insured have met their deductible. There are 40 million MRI scans performed each year in the United States (Shah & Aran, 2023), which projects to 11.7% (340 million US population / 40 million MRI scans) of the population receiving an MRI in any given year. The annual net financial benefit of an MRI scan for the insured would be \$1.52 ($\$13 \times 11.7\%$).

Computed Tomography (CT) Scan - The average CT scan co-payment in the United States for the insured is \$75 (\$50 - \$100 range) if the insured has met their deductible (AI, 2025). Insured patients that have not met their deductible will pay the full amount for the CT scan. Uninsured patients or patients that have not yet reached their deductible can book directly with on-line imaging sites like Radiology Assist (radiologyassist.com) for a CT scan for \$130. According to Ryan (2015), 80% of the non-chronically ill insured do not meet their deductibles. The net financial benefit for having insurance would be \$11 ($\$55 \times .20$) since only 20% of the insured have met their deductible. There are 80 million CT scans performed each year in the United States (Shah & Aran, 2023), which projects to 23.4% (340 million US population / 80 million CT scans) of the population receiving a CT Scan in any given year. The annual net financial benefit of a CT scan for the insured would be \$2.57 ($\$11 \times 23.4\%$).

X-Ray - The average co-payment for an X-ray in the United States for the insured averages \$30 (\$10 - \$50) if the insured has met their deductible (Cost Helper, 2025). Insured patients that have not met their deductible will have to pay the full amount for the X-ray. Uninsured patients or patients that have not yet reached their deductible can book directly with on-line imaging sites like Radiology Assist (radiologyassist.com) for an X-ray for essentially the same price paid by the insured that have met their deductible. As a result, there is no financial benefit for the insured that have met their deductible compared to the uninsured or the insured that have not met their deductible when it comes to getting an X-ray.

Ultrasound - The average co-payment for an ultrasound in the United States for the insured averages \$30 (\$10 to \$50 range) if the insured has met their deductible (Cost Helper Health, 2025). Insured patients that have not met their deductible will have to pay the full amount for the ultrasound. Uninsured patients or patients that have not yet reached their deductible can book directly with on-line imaging sites like Radiology Assist (radiologyassist.com) for an ultrasound for \$115. According to Ryan (2015), 80% of the non-chronically ill insured do not meet their deductibles. The net financial benefit for having insurance would be \$17 ($\$85 \times .20$) since only 20% of the insured have met their deductible. Most pregnant women receive two ultrasounds during pregnancy for a financial net benefit of \$170 per pregnancy. If the average family has two children then the lifelong benefit would be \$340 ($\170×2 children), which would provide an annual financial benefit of \$8.50 ($\$340 / 40$ years) over a lifetime. The annual net financial benefit of ultrasounds for the insured over the uninsured would be \$4.25 ($\$8.50 \times .50$) since 50% of the population is male so they would not be eligible for the scan.

Mammograms - Most health insurance plans cover mammograms every other year for women over the age 40 with no co-payment, deductible or coinsurance. Uninsured patients can book mammograms directly with on-line imaging sites like Radiology Assist (radiologyassist.com) for \$100. If a female received 10 mammograms paid for by insurance then insurance coverage will save her \$1,000 ($\100×10 mammograms) over her lifetime or around \$25 per year ($\$1,000 / 40$ years). The annual net financial benefit of mammograms for the insured over the uninsured would be \$12.50 ($\$25 \times .50$) since 50% of the population is male so they would not be eligible.

III. SUMMARY

This study examined the cost of health care services and procedures for those with health insurance and those without insurance and paying out-of-pocket. An individual with or without health insurance can pursue services such as medication, primary care visits, imaging, and preventive care procedures regardless of health insurance status. The results indicate the costs are very similar for those with insurance and those without. The table below shows the net financial benefit of the most common healthcare services. The net benefit would be around \$34.05 if every service was used by the insured. However, According to the 2024 Health Benefits Survey, the average annual cost for health insurance coverage premiums for a family of four was \$25,572 and the average deductible amount was \$10,310 (KFF, 2024). The \$25,572

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average deductible amount is a lot of money when the net financial benefit is just \$34.05.

Service Provided	Net financial Benefit
Prescription Drugs	-
Blood Work	-
Primary Care Visit	\$3.00
Urgent Care Visit	\$1.46
Emergency Care Visit	\$6.18
X-ray	-
CT scan	\$2.57
MRI scan	\$1.52
Ultrasound	\$4.25
CT	\$2.57
Mammogram	\$12.50
Total	\$34.05

IV. CONCLUSION

This study concludes that the 80% of non-chronically ill insured individuals do not receive economic benefit from the purchase of health insurance if they didn't reach their deductible amount.

There was little to no difference in out-of-pockets costs between the insured that don't meet their deductible and the uninsured when it came to primary care visits, tier one prescription drugs, lab work, X-rays, CT scans, MRI scans, Ultrasounds, Mammograms, urgent care and emergency department visits. Further, uninsured patients that shop around for care have lower out-of-pocket costs than the insured that have not yet reached their deductible and access care in-network. Some may argue that health insurance provides peace of mind for unexpected acute illness, the development of a chronic illness, or accidents. This factor was not quantified in this study.

Further study of this topic could include the medical condition of being pregnant and giving birth. Under these circumstances, it might be financially beneficial for a woman to have health insurance. In addition, high-deductible health insurance policies that contain a health savings account (triple tax advantaged) may be financially beneficial for those looking not only for an approved health insurance plan, but also a tool for saving money for future health care costs.

The present author scheduled three lab tests to be paid for by insurance without met deductible and also scheduled the same three lab tests without the use of insurance. The author of the present study when using insurance without met deductible received two bills totalling \$363 (\$105 + \$258) not including physician visit cost. However, the same scheduled lab tests without the use of insurance with Ulta.com resulted in \$85 in

out-of-pocket costs, which is \$278 less and even included on-line physician approval.

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