Why Do Poor Patients with Chronic Disease Keep Starting Over? A Comparison of Coverage Continuity in the U.S. and China

Ruokai Ren[1, a]

[1]Beijing World Youth Academy, Beijing, China

[a]Email: 2009006187@wya.top

Abstract

This paper examines why low-income patients with chronic diseases repeatedly lose access to healthcare despite having insurance coverage. Through comparative analysis of the United States Medicaid system and China's Urban-Rural Resident Basic Medical Insurance (URRBMI), I identify geographic fragmentation as a common mechanism disrupting care continuity. Using policy documents, patient testimonies, and health outcome data, I trace a four-link causal chain: geographic fragmentation creates coverage instability, instability disrupts continuous care, disrupted care worsens health outcomes and increases costs. In the U.S., state-level Medicaid rules create administrative barriers when patients move or change jobs. In China, provincial financing disparities create similar barriers for rural-to-urban migrants. Both systems tie coverage to place rather than people, making mobility a clinical risk for chronic disease patients who require consistent treatment. The findings suggest that measuring coverage rates without tracking continuity misses the fundamental vulnerability of fragmented systems. This research contributes by connecting parallel literatures that have rarely been in conversation and reframing health insurance success metrics to prioritize continuity over static enrollment counts.

Keywords

Health insurance fragmentation, chronic disease management, Medicaid churn, URRBMI, coverage continuity, U.S.-China comparison, health policy.

1. Introduction

In 2024, a Medicaid patient interviewed by researcher Nicole Blegen described losing coverage "right in the middle of treatment." Each time she changed jobs or her income fluctuated, she had to reapply, and during the gaps (lasting weeks or months) she rationed her blood pressure medication [1]. Halfway around the world, a diabetic patient in rural Anhui province explained to researchers why he withdrew from China's health insurance program: his rural coverage didn't transfer when he moved to the city for work, making insulin unaffordable [9].

When I first encountered these parallel stories (published in different journals, written in different languages, studied in vastly different political systems) I was struck by their similarity. How can two such different health systems produce the same outcome: patients with insurance who cannot maintain continuous treatment? This paper argues that **geographic fragmentation** creates a common mechanism. In the U.S., state-level Medicaid rules create administrative "seams" when people move or change jobs. In China, local financing of URRBMI creates uneven coverage when people migrate between regions. For chronic disease patients requiring consistent medication and monitoring, these geographic divisions become life-altering barriers.

U.S. scholars have documented "Medicaid churn" (people repeatedly losing and regaining coverage) [4, 6]. Chinese researchers have found similar patterns with what they call "invisible

withdrawal" from rural insurance [7, 9], though the two literatures don't really talk to each other. **My contribution is connecting them** to reveal a shared causal chain: **Geographic fragmentation → Coverage instability → Care disruption → Health deterioration**. I trace this mechanism using policy documents, patient testimonies, and health outcome data from both countries.

The analysis reveals a troubling irony: both countries have expanded insurance coverage dramatically, yet for low-income chronic disease patients, this expansion proves fragile. Any life change (a move, a job shift, an income fluctuation) can sever care. Understanding this pattern matters because it reframes the policy question. Instead of asking "how many people are insured?" we should ask: "how long can patients stay insured without interruption?" I argue that continuity, not just coverage, should be how we measure success.

2. Methodology

To investigate this question, I needed to understand not just *whether* coverage is fragmented, but *how* fragmentation produces negative outcomes step by step. This required tracing a causal mechanism (the chain of events connecting policy design to patient experiences to health consequences). I applied this approach comparatively: if geographic fragmentation causes continuity problems through the same causal steps in both a federal democracy and a unitary state with local financing, the mechanism is likely structural rather than culturally specific.

As a high school researcher, I worked with existing studies rather than conducting original fieldwork. For the U.S., I used the Kaiser Family Foundation database to map Medicaid variation, Blegen's interviews with Medicaid participants describing coverage disruptions [1], and Cole's quantitative comparison of diabetes and hypertension control in expansion versus non-expansion states [3]. For China, I read government reports from the National Healthcare Security Administration (which I found through their English-language publications), Zuo's survey on why rural residents withdraw from insurance [9], and Yao's data on catastrophic health expenditure despite integration reforms [8].

Working with secondary sources meant trusting others' data collection. For Chinese research, I relied on English translations, potentially missing nuances. The studies define key concepts slightly differently, requiring interpretation. Most critically, I can trace what seems like a causal pattern, but I can't definitively rule out alternative explanations without experimental data. Poverty itself might cause both coverage gaps and poor health. I addressed this by seeking cases where coverage changed but poverty stayed constant (like Medicaid expansion states), but evidence remains correlational.

To trace the causal mechanism, I broke down the process into four distinct links and gathered different types of evidence for each. For the first link (whether policy design actually creates geographic fragmentation), I examined state and provincial variation in rules and financing. For the second link (whether this fragmentation causes people to lose coverage), I relied on patient testimonies from Blegen [1] and Zuo [9] describing coverage loss during moves or job changes. The third link asked whether coverage instability disrupts actual care, which I traced through accounts of medication rationing and missed appointments. Finally, for the fourth link (whether disrupted care leads to worse outcomes and higher costs), I used disease control data from Cole [3] and catastrophic expenditure data from Yao [8]. When different types of evidence pointed to the same conclusion, I became more confident that link in the chain was real.

To be clear: my contribution is not discovering Medicaid churn or Chinese insurance withdrawal (those are well-documented). Rather, I synthesize parallel literatures to identify a common mechanism and reframe the problem through a business management lens, arguing that these gaps represent a "cost amplification effect" where small administrative frictions cascade into large, avoidable expenses.

3. Literature Review

When I began researching this topic, I started with the American literature. The word that kept appearing was "churn" (Medicaid patients losing and regaining coverage repeatedly). Cole et al. [3] studied this at health centers over five years, comparing expansion and non-expansion states. In states that didn't expand Medicaid, patients with diabetes and hypertension had significantly worse disease control. What struck me was that this wasn't about lacking insurance. These were insured people whose coverage kept breaking.

I turned to qualitative studies to understand patient experiences. Blegen et al. [1] interviewed Medicaid patients in California, who described prolonged enrollment, confusion about plan selection, and losing coverage "mid-treatment." Hayes et al. [4] documented another breaking point: when people turn 65 and shift from Medicaid to Medicare. Interviewing 30 participants in Michigan, they found this transition was unwanted, complicated, and financially burdensome. Manivannan et al. [6] helped me understand the employment connection. Their interviewees described an impossible bind where accepting work might push them above Medicaid thresholds, threatening healthcare access.

The Chinese literature revealed surprisingly similar patterns. Zuo et al. [9] interviewed rural residents in Anhui province about why they withdrew from health insurance. The reasons (low reimbursement rates, difficulty using coverage after moving for work, paying premiums but receiving minimal benefits) sounded like the American "churn" complaints, just described differently. Xu et al. [7] showed how chronic disease subsidies remain inadequate in rural areas despite policy intentions.

Yao et al. [8] quantified the consequences: tracking elderly households, they found chronic diseases significantly increased catastrophic health spending risk, and critically, basic medical insurance didn't significantly reduce this burden. Liu and Chu [5] surveyed rural residents about URRBMI integration, finding that people cared deeply about fairness across regions. When provincial differences created uneven coverage, satisfaction dropped.

Chung et al. [2] studied this pattern in Hong Kong, describing a "poverty-health vicious cycle" where health shocks and financial strain feed each other. Although Hong Kong's system differs from China's mainland, the conceptual framework seemed relevant to both countries I was studying.

Looking at both literatures together, I realized they were describing the same fundamental problem but had never been put in conversation. Both systems fragment coverage geographically, both create instability when lives cross administrative boundaries, and both hit chronic disease patients hardest. That gap became my starting point.

4. Analysis

To understand how geographic fragmentation disrupts chronic care, I traced the causal mechanism step by step. Each link in the chain needed evidence before I could move to the next.

4.1. Link 1: How Policy Design Creates Geographic Fragmentation

The first question was whether these systems actually fragment coverage by geography. For the U.S., the answer was straightforward: Medicaid is a state-federal partnership where each state sets its own eligibility thresholds, benefit packages, and provider networks. This isn't hidden. It's the program's basic structure. Some states expanded Medicaid under the Affordable Care Act, covering adults up to 138% of the federal poverty level; others didn't, leaving significant coverage gaps. Even among expansion states, the details vary: which services are covered, how much patients pay out-of-pocket, which doctors participate.

China's case was less obvious to me initially. On paper, the 2016 integration of urban and rural schemes into URRBMI created a unified system. But when I read Liu and Chu's survey data [5], I realized the "unification" was largely nominal. Financing still depends heavily on local government budgets. Richer provinces like those along the coast can maintain generous outpatient benefits and comprehensive drug formularies. Poorer inland provinces scale back these benefits because they lack the fiscal capacity. The result is a system that looks unified on paper but fragments dramatically by province in practice.

I realized both countries fragment coverage, just for different reasons. In the U.S., it's because federalism gives each state the authority to run its own Medicaid program. In China, even though the system is centrally designed, local governments have to pay for benefits out of their own budgets. So you end up in the same place: where you live determines what coverage you get.

4.2. Link 2: How Geographic Fragmentation Creates Coverage Instability

The second link was harder to establish: does this fragmentation actually make people lose coverage, or is that just a theoretical risk? Patient testimonies became crucial here. Blegen et al.'s California interviews [1] provided vivid examples. One participant described the pattern bluntly: losing coverage "right in the middle of treatment." The triggering events varied (a job change, an income fluctuation, a move to a different county), but the result was always the same: reapplying, waiting, and during that gap, treatment stopped.

Hayes et al.'s Michigan study [4] showed me this happens even when people don't change states. When Medicaid expansion enrollees turn 65, they're required to transition to Medicare as their primary insurer. For 19 of the 30 people Hayes interviewed (all aged 65-71 in Michigan), this meant losing Medicaid entirely because they didn't meet Michigan's strict dual-eligibility criteria. They described the transition as "unwanted" and "complicated." Suddenly facing premiums and copays they couldn't afford, even though they'd been continuously insured.

Manivannan et al.'s work [6] helped me understand the employment trap. Their participants weren't unemployed. Most were working, often multiple jobs. But the work was inflexible and unstable. One person asked: "Can I have a job that will accommodate my doctor appointments?" Another explained: "It's not like I don't want to work... It's just that I don't want to be homeless again." Accepting more hours or a higher wage could push them above Medicaid's income threshold, forcing an impossible choice between earning more and keeping healthcare.

The Chinese pattern was different in form but similar in function. Zuo et al.'s rural Anhui interviews [9] revealed that the problem wasn't job-related churn but migration-related withdrawal. Rural residents who move to cities for work find their rural insurance doesn't transfer effectively. Reimbursement rates are lower at urban hospitals, or the administrative process of getting reimbursed cross-province is so cumbersome that people give up. One of Zuo's participants said: "I paid the premium, but when I needed care in the city, they said I couldn't get reimbursed because the treatment location doesn't match my registration." Rather than navigate the complexity, many simply stop enrolling.

Looking at both patterns, I noticed that the instability wasn't random. It was structurally predictable. Any life event that crosses an administrative boundary (state lines, income thresholds, age cutoffs, rural-urban divides) triggers coverage problems. For people in poverty, whose lives are often precarious and mobile, these boundaries are crossed frequently. The system treats mobility as an exception when for these populations, it's the norm.

4.3. Link 3: How Coverage Instability Disrupts Continuous Care

The third link was the one I found most compelling: does coverage instability actually disrupt care, or do people find ways to continue treatment despite the gaps? The patient accounts were unambiguous. Blegen's participants [1] described concrete coping strategies: rationing pills by

skipping doses, canceling follow-up appointments, stretching prescriptions beyond their refill dates. These weren't occasional compromises. They were routine adaptations to coverage gaps.

I came to understand that chronic disease makes these disruptions particularly damaging. Manivannan et al.'s participants [6] articulated this clearly. One person described the dilemma: "Will my therapy have to suffer?" when considering work that might jeopardize Medicaid. The question revealed an important insight: chronic disease management isn't episodic. It's cumulative. Missing a week of blood pressure medication isn't like delaying treatment for a sprained ankle. The consequences compound.

Hayes et al.'s Medicare transition study [4] provided another angle. When people lost their Medicaid supplement at age 65, many stopped filling prescriptions they couldn't afford. One participant explained having to choose between medications, deciding which chronic condition was "more urgent" to treat. This forced prioritization meant some conditions went unmanaged not because people didn't know they needed treatment, but because they couldn't sustain the cost.

In China, the disruption looked different but had similar effects. Zuo et al.'s interviewees [9] described simply avoiding care rather than navigating the reimbursement maze. When asked why they withdrew from insurance, several mentioned the pointlessness of paying premiums if they couldn't practically use the benefits when working in cities. The administrative friction (needing to register at specific hospitals, matching treatment location to insurance registration, filing claims across provinces) created enough hassle that people chose to pay out-of-pocket for minor issues and avoid treatment for chronic conditions entirely.

Xu et al.'s analysis [7] of health poverty alleviation policies helped me understand the structural issue. Even when subsidies existed for chronic disease patients in rural areas, accessing them required continuous enrollment and proper documentation. Migrants who withdrew from the system lost access to these subsidies, even though their chronic conditions persisted.

There's a fundamental mismatch here. Chronic disease requires **sameness over time**: same medications, same monitoring, same routines. But fragmented insurance systems are designed for **static lives**: stay in one place, keep the same income, remain in the same age category. When life moves (and for low-income populations, life often moves), the system breaks the rhythm of care.

4.4. Link 4: How Disrupted Care Worsens Health and Increases Costs

The fourth link was connecting these care disruptions to measurable consequences. Cole et al.'s study [3] provided the clearest health outcome evidence. Comparing nearly a million patients at federally qualified health centers over five years, they found that states without Medicaid expansion showed significantly worse diabetes and hypertension control. Patients in non-expansion states had higher hemoglobin A1c levels and poorer blood pressure management. This wasn't about access to any healthcare. It was specifically about continuous coverage enabling consistent chronic disease management.

The economic consequences were equally stark. Yao et al.'s longitudinal study [8] of 6,483 elderly Chinese households found that chronic diseases significantly increased the risk of catastrophic health expenditure (defined as out-of-pocket costs exceeding 40% of non-food household spending). The critical finding was that basic medical insurance didn't significantly reduce this risk. Even with nominal coverage, households faced financial ruin when chronic conditions required sustained treatment.

Looking at both findings, I noticed an amplification pattern. Small administrative gaps (a few weeks without coverage, a missed refill, a delayed appointment) didn't cause proportional harm. They triggered cascading consequences. Blood pressure left uncontrolled for weeks increases stroke risk permanently. Diabetes mismanaged for months causes vascular damage

that becomes irreversible. By the time people regained coverage, the disease had progressed, requiring more intensive and expensive intervention.

As I thought about this pattern, I realized it represented what I started calling a "cost amplification effect" (though I'm not sure if that's the right term). From a business management perspective, this represents a striking failure of system efficiency. What appears to be "cost savings" through fragmented administration (letting states or provinces customize their programs) actually generates expensive downstream failures. The costs pile up: preventable ER visits, hospitalizations for diseases that should've been controlled with regular checkups, families facing catastrophic spending on conditions that could have been managed affordably if care hadn't kept getting interrupted.

It reminded me of something I learned in economics class about supply chains: a small disruption at one point can cause huge problems down the line. Here, the disruption is administrative (state boundaries, income thresholds, registration requirements), but the cascading costs are medical and financial. The system saves pennies on coordination but spends dollars on complications.

Tracing this mechanism across both countries showed me that the problem is structural, not just about one country's policies. But understanding the problem is only the first step. What does this mean for policy, and what can be done?

5. Conclusion

I began with a puzzle: why does a Medicaid patient in California and a rural migrant in Anhui both keep losing access to care despite having insurance? Through tracing the mechanism step by step, I found that the answer lies in geographic fragmentation. Both systems (despite vastly different political structures) tie coverage to place rather than people. When lives move, coverage breaks. For chronic disease patients who need continuous treatment, these administrative boundaries become clinical barriers. The mechanism operates similarly in both contexts: policy design creates geographic seams, those seams produce coverage instability, instability disrupts the rhythm of care, and disrupted care triggers both health deterioration and financial crisis. This isn't a problem unique to American federalism or Chinese fiscal decentralization. It's a structural consequence of fragmenting insurance geographically while expecting patients to remain static.

This research made clear to me that coverage expansion isn't enough. We're measuring the wrong thing. Both countries celebrate rising enrollment numbers: millions newly insured, historic gains in coverage rates. But for chronic disease patients, the relevant question isn't "are you insured today?" but "will you still be insured next month? Next year?" Chronic diseases don't pause when coverage lapses. The months of blood pressure control, the careful diabetes management, the routine monitoring all unravel during gaps. A week without medication isn't just a week lost. It's cumulative damage that compounds over time. Continuity isn't a nice-to-have feature; it's the foundation that makes treatment possible. When we prioritize enrollment over continuity, we're optimizing for the wrong metric. We're counting people who cross the starting line without tracking whether they can finish the race.

I'm not claiming to have policy solutions. That would require expertise I don't have. But this research suggests policymakers should ask different questions. Instead of "how many people enrolled this year?" ask "how many stayed enrolled without interruption for two years? Five years?" Instead of "what's our coverage rate?" ask "how portable is that coverage when people move, change jobs, or age?" Instead of celebrating state flexibility or local autonomy, measure whether that flexibility creates seams that break care. The focus needs to shift from breadth to depth, from static snapshots to dynamic continuity. Even simple tracking (publishing annual

statistics on coverage stability, not just coverage rates) would make the problem visible in a way current metrics don't.

This study has clear limitations. I relied entirely on existing research and couldn't verify the causal chain experimentally. Tracking the same patients over years (watching exactly what happens when they lose and regain coverage, measuring health changes during those gaps) would provide stronger evidence than the cross-sectional comparisons I drew from. The comparative approach revealed patterns but couldn't control for all the differences between two such distinct systems. And I focused on policy structure, leaving aside implementation challenges and political constraints that make reform difficult. But even with these limits, the pattern I found suggests the problem is real: geographic fragmentation creates a predictable vulnerability for mobile, low-income populations managing chronic disease.

What stays with me most from this research isn't the mechanism itself, but the waste it represents. Not just wasted money (though the cost amplification is real). It's the wasted effort. Patients who worked so hard to get insured, only to watch that coverage slip away during a move or job change. Doctors who spent months stabilizing a patient's diabetes, then saw all that progress erased by a coverage gap. The system forcing people to start over, again and again, managing diseases that never pause. That's what I'll keep thinking about: why we've built systems that require chronic disease patients (the people who most need stability) to constantly restart. If there's one thing this research taught me, it's that healthcare policy isn't just about covering people; it's about whether that coverage can actually hold.

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