

From Segmentation to Equity: Welfare Gains from a Portable Health Insurance Reform for Migrant Workers

Huang Chen, Yunxiao Wang, Yang Yue

Xiamen University

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Motivation

- **Health Insurance** reduces income risk and promotes productivity
- BUT, it is often **fragmented across regions**, and inaccessible to **mobile and informal workers**.
eg. in China:
 - ▶ Health insurance for urban employees (UEBMI)
 - ▶ Health insurance for urban residents (URBMI)
 - ▶ Health insurance for rural residents (NRCMS)
- China has over **290 million internal migrants**, yet it is difficult for them to get reimbursed for healthcare expenses **in workplaces outside home regions** before the reform of **Cross-Regional Instant Reimbursement (CRIR)** .
- Location-based schemes deepen healthcare inequality, an issue seen globally in both developed and developing contexts.



Research Question

- In this study, we investigate how cross-regional reforms shape **health insurance coverage** and its **sequential impacts**.
- Specifically, we explore the following questions:
 - ▶ How does CRIR affect health **insurance enrollment** among internal migrants in China?
 - ▶ How does CRIR affect the **anticipated benefits** of health insurance enrollment (e.g., **improved healthcare utilization, reduced financial burdens, broader household behavior**)?
 - ▶ What is the **distributional impacts** (e.g., low-income, informal workers)?

Preview of Key Findings

- **Approach:** Using a discrete choice model and DDD design on 896,672 internal migrants from 2012-2017 China Migrants Dynamic Surve (CMDS) data, we find that:
- **Key Findings:**
 - ▶ **Enrollment:** CRIR increased insurance coverage by 3.1–4.4%, driven by a 10.1% rise in local enrollment in the most generous scheme.
 - ▶ **Mechanism 1–Healthcare utilization:** Local hospital visits ↑ 16.0%; inpatient admissions ↑ 41.1%; reimbursement rate ↑ 19.7%.
 - ▶ **Mechanism 2–Household behavior:** Consumption ↑ 2.8%; female migration ↑ 3.6%; local childbirth ↑ 10.3%.
 - ▶ **Distributional effects:** Disproportionate gains for low-income, less-educated, and informal migrants.

Contributions

- First, we contribute to the literature on **public economics and social insurance design** by addressing how **reducing administrative frictions improves coverage for mobile populations**.
 - ▶ Role of insurance expansion (Finkelstein et al., 2012; Banerjee et al., 2021) and behavioral frictions (Domurat et al., 2021).
 - ▶ Lacking evidence from the perspective of **institutional reform on portability**.

Contributions

- Second, we contribute to the literature on **inclusive growth** by examining how **portability reforms** affect **equity in access to social protection**.
 - ▶ Disparities driven by employment conditions (Gao et al., 2012), limited awareness (Giles et al., 2021) and low-capacity settings (Banerjee et al., 2021).
 - ▶ Lacking evidence on the heterogeneous impact of **portability-enhancing reforms across vulnerable groups**.

Contributions

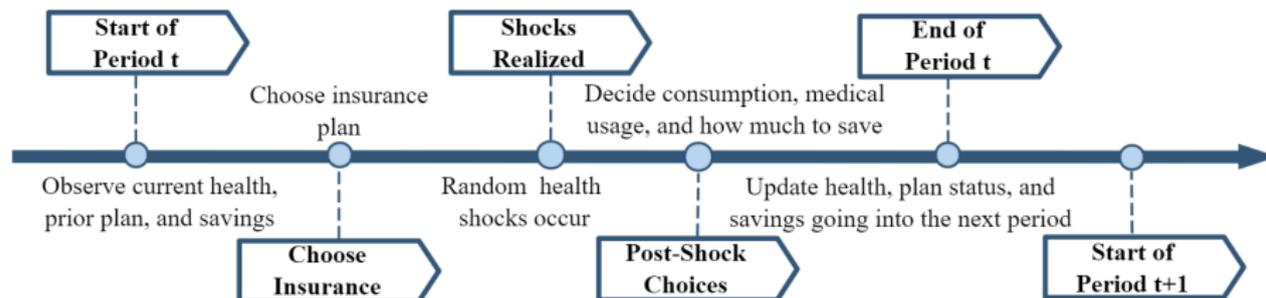
- Third, we contribute to the literature by adding evidence of **longer-term behavior impacts** of portability reform.
 - ▶ Prior studies document access enrollment gaps among migrants (Giles et al., 2021; Guo et al., 2024) or implementation barriers of public health insurance (Banerjee et al., 2021), **but few of them evaluate whether institutional integration improves outcomes beyond enrollment.**
 - ▶ Residential and labor decisions are affected by insurance (Engelhardt & Greenhalgh-Stanley, 2010; Wang et al., 2022), **but are not linked to portability-driven reforms.**

Institutional Background

- China's health insurance system has long been fragmented— **local enrollment, manual filing, and fiscal disparities** limited portability.
- Earlier reforms improved equity, but **reimbursement across regions remained difficult**.
- In response, the CRIR reform enabled **direct settlement across jurisdictions**.
- **Piloted intra-province (2011–2016)** and expanded to inter-provincial coverage in 2017.

Migrants' Choices as a Two-Stage Decision

- Migrants choose insurance plans each period, considering:
 - ▶ Health H_t , savings S_t , and prior plan α_{t-1}
 - ▶ Premium F_j , **reimbursement rate r_j (\uparrow)**, and **portability cost κ_j (\downarrow)**
- Two-stage decision:
 - ▶ Stage 1: Choose insurance plan $\alpha_t \in \{NI, LEB, LRB, HRB\}$
 - ▶ Stage 2: Choose care h_t , consumption c_t , and savings S_{t+1}



Model Setting

- **Health evolution:**

$$H_{t+1} = (1 - \delta)H_t + \varphi(h_t) - \varepsilon_t^{\text{health}}$$

- **Budget constraint:**

$$c_t + S_{t+1} + F_j + \psi_j = y_t + (1 + r)S_t - \underbrace{[(1 - r_j)h_t + v_t^j \kappa_j]}_{\text{OOP spending under scheme } j}$$

- **Value function:**

$$V_t^j(H_t, \alpha_{t-1}, S_t) = \max_{c_t, h_t, S_{t+1}} \{U(c_t, H_t) + \beta \mathbb{E}[V_{t+1}^j]\}$$

Model Predictions

- The insurance decision is **forward-looking**, based on comparing the utility gains from alternative schemes. As such, the CRIR will:
 - ▶ increase **enrollment** (as ex-ante impact)
 - ▶ increase **healthcare utilization** (as ex-post impact)
 - ▶ lead to **plan upgrading**: a shift towards LEB (i.e., local employment basic insurance plan)
 - ▶ have **distributional effects**: larger gains among vulnerable groups
 - ▶ reveal **adjustment dynamics**: gradual switching into the new plan
 - ▶ have **consumption smoothing effects**: reallocated consumption through reduced precautionary savings

Data: China Migrants Dynamic Survey (CMDS)

- Annual survey, 2012–2017, covering 896,672 migrants aged 15+ across 31 provinces
- Rich individual-level data on health, insurance, migration, consumption, and household outcomes
- Treatment group:
Intraprovincial migration: cross-city, within-province moves;
- Control group:
Interprovincial migration: cross-province moves;
Within-city migration: cross-county, within-city moves

CRIR Rollout

- Full implementation defined as the year after platform activation
- Quasi-experimental variation from staggered provincial rollout

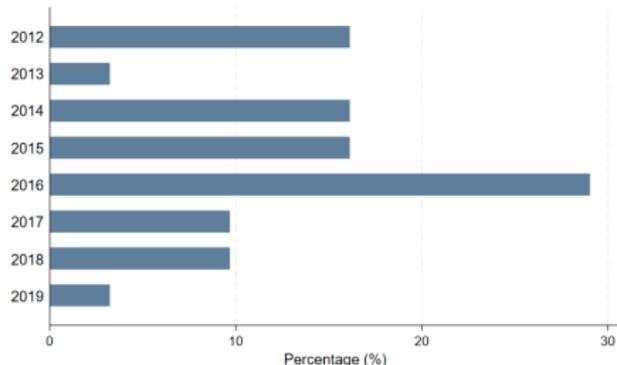


Figure 3: Implementation years of CRIR

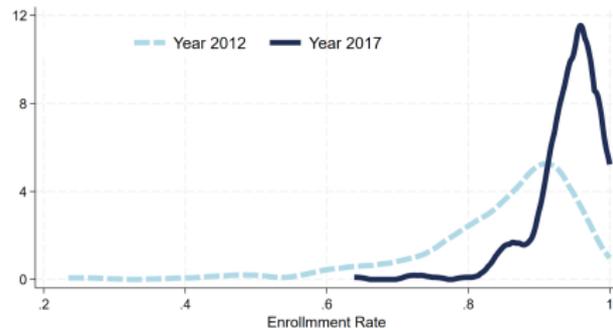


Figure 4: City-level BMI enrollment rates

Descriptive Statistics

Table 1. Summary statistics for key variables

	N	Mean	SD	Min	Max
Panel A. Insurance enrollment					
BMI enrollment dummy	896,672	0.90	0.30	0	1
Local BMI enrollment dummy	731,221	0.22	0.42	0	1
Home BMI enrollment dummy	731,221	0.71	0.45	0	1
Dual BMI enrollment dummy (local + home)	731,221	0.04	0.19	0	1
Panel B. Healthcare utilization					
Doctor visit dummy	98,702	0.85	0.36	0	1
Visited local community health institutions	98,702	0.65	0.49	0	1
Visited local hospitals	98,702	0.19	0.39	0	1
Visited medical org. in hometown	98,702	0.01	0.09	0	1
Visited org. elsewhere	98,702	0.01	0.07	0	1
Hospitalization dummy	157,558	0.07	0.25	0	1
Hospital expenses (RMB)	10,355	9729	18,984	0	454,666
Hospital reimbursement rate	10,113	0.37	0.33	0	1

Identification strategy

- **Key variation in DDD:** Staggered timing, regional implementation, and geographic scope of moves
- **Baseline regression:**

$$Y_{ipt} = \beta_0 + \beta_1(Post_{pt} \times Intra_{ipt}) + \beta_2 Post_{pt} + \beta_3 Intra_{ipt} + \gamma X_{ipt} + \delta_p + \eta_t + \epsilon_{ipt}$$

- ▶ Y_{ipt} : Outcome of interest (e.g., whether migrant i in province p and year t is enrolled in a BMI scheme)
 - ▶ $Post_{pt}$: Dummy for CRIR rollout in province p at time t
 - ▶ $Intra_{ipt}$: Intra-provincial migrant indicator
 - ▶ X_{ipt} : Demographic and socioeconomic characteristics
 - ▶ δ_p : Province FE; η_t : Year FE; province-year clustered SEs
- **Event study extension:**

$$Enrollment_{ipt} = \beta_0 + \sum_{\tau=-6, \tau \neq -1}^4 \beta_\tau (Post_{pt}^\tau \times Intra_{ipt}) + \beta_5 Intra_{ipt} + \gamma X_{ipt} + \delta_p + \eta_t + \epsilon_{ipt}$$

Ex-ante Effects on Enrollment Rates

Table 2: Effects on BMI enrollment (baseline estimates and lagged effects)

	BMI schemes enrollment		
	(1)	(2)	(3)
	t	t-1	t-2
Post CRIR \times Intraprovince	0.0094** (0.0043)	0.0125** (0.0052)	0.0275*** (0.0070)
Post CRIR	-0.0066 (0.0044)	-0.0063 (0.0041)	-0.0016 (0.0041)
Intraprovince	-0.0374*** (0.0024)	-0.0368*** (0.0024)	-0.0371*** (0.0022)
Covariates	YES	YES	YES
Year FE	YES	YES	YES
Province FE	YES	YES	YES
Observations	896,672	896,672	896,672
Pseudo R^2	0.081	0.081	0.082
Mean of outcome	0.90	0.90	0.90

Parallel Trends and Long-Run Impact

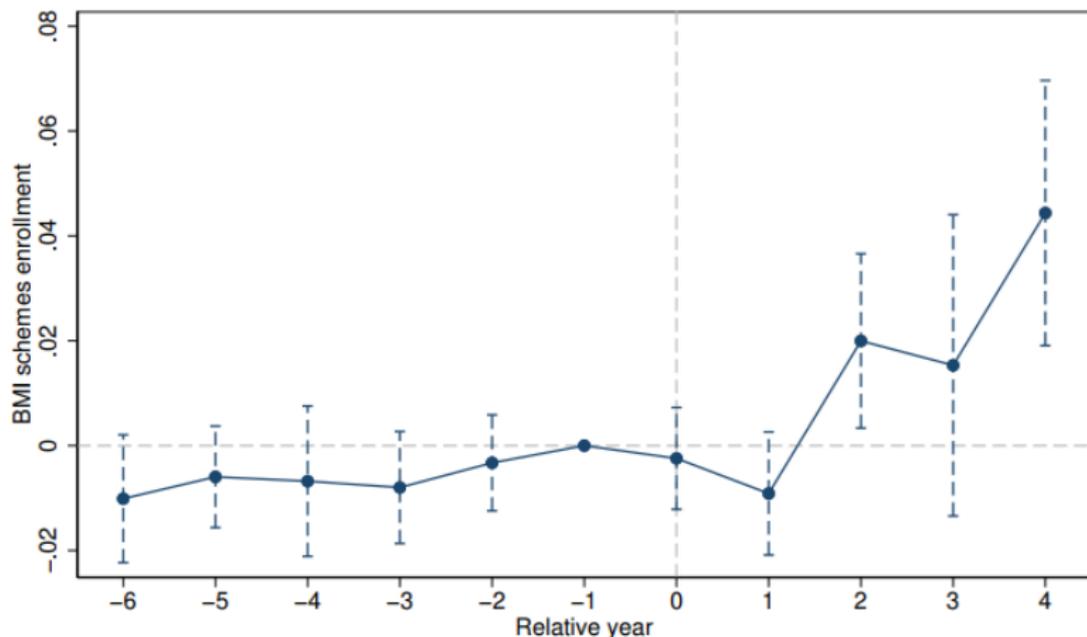


Figure 5: Parallel trend test and long-run effects of the CRIR on BMI enrollment

Enrollment Patterns by Registration Location

Table 3: Effects of CRIR on BMI enrollment (local vs home)

	Local enrollment	Home enrollment	Single enrollment	Dual enrollment	
	(1)	(2)	(3)	(4)	(5)
Post CRIR × Intraprovince	0.0120* (0.0070)	0.0102 (0.0080)	0.0171** (0.0081)	0.0058 (0.0041)	0.0076 (0.0058)
Post CRIR	0.0041 (0.0053)	0.0156 (0.0105)	-0.0183** (0.0076)	0.0016 (0.0037)	0.0083** (0.0042)
Intraprovince	-0.0018 (0.0025)	-0.0315*** (0.0024)	-0.0351*** (0.0031)	-0.0006 (0.0025)	0.0068** (0.0030)
Sample	Full	Full	Full	Full	Locally or home enrolled
Year FE	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES
Observations	731,221	731,221	731,221	731,221	663,905
Pseudo R ²	0.551	0.457	0.457	0.457	0.166
Mean of outcome	0.22	0.71	0.88	0.04	0.04

Scheme Choice: UEBMI vs. URRBMI

Table 4: Effects of CRIR on Scheme Choice (UEBMI vs. URRBMI)

	Local UEBMI enrollment	Local URRBMI enrollment	Home UEBMI/URRBMI enrollment
	(1)	(2)	(3)
Post CRIR × Intraprovince	0.0161** (0.0063)	0.0016 (0.0027)	0.0106 (0.0079)
Post CRIR	-0.0065 (0.0057)	-0.0005 (0.0033)	-0.0083 (0.0082)
Intraprovince	-0.0023 (0.0026)	-0.0036** (0.0018)	-0.0328*** (0.0029)
Local URRBMI enrollment	-0.2241*** (0.0105)		-0.4740*** (0.0123)
Home UEBMI/URRBMI enrollment	-0.2012*** (0.0035)	-0.1700*** (0.0035)	
Local UEBMI enrollment		-0.1345*** (0.0049)	-0.3315*** (0.0056)
Year FE	YES	YES	YES
Province FE	YES	YES	YES
Covariates	YES	YES	YES
Observations	731,221	731,221	731,221
Pseudo R ²	0.499	0.470	0.397
Mean of outcome	0.16	0.06	0.73

Validity Verification

- **Falsification tests:** Enrollment in unrelated social insurance programs
- **Subsample and policy overlap:** Whether the CRIR effect remains stable across different subsamples and in the presence of concurrent policy changes
- **Alternative estimation:** Semiparametric DID estimator
- **Preconditions:** Effects in contexts with more feasible implementation and behavioral responses.

Potential Mechanisms

- Forward-looking responses to anticipated benefits:
 - ▶ Improved medical access
 - ▶ Reduced financial burdens
 - ▶ Broader household impacts (consumption, migration, fertility)
- Estimating the effects of CRIR on insured migrants' behaviors:

$$\begin{aligned} \text{Behavior}_{ipt} = & \beta_0 + \beta_1 (\text{Post}_{pt} \times \text{Intra}_{ipt} \times \text{Enroll}_{ipt}) \\ & + \beta_2 (\text{Post}_{pt} \times \text{Intra}_{ipt}) + \beta_3 \text{Enroll}_{ipt} + \beta_4 \text{Post}_{pt} \\ & + \beta_5 \text{Intra}_{ipt} + \gamma X_{ipt} + \delta_p + \eta_t + \varepsilon_{ipt}. \end{aligned}$$

- Behavior_{ipt} : Outcomes of potential anticipated benefits

Mechanism I: Healthcare Utilization

Table 8: Effects of CRIR on outpatient outcomes

	Doctor visited	Local community health institutions	Local hospitals	Hometown medical treatment
	(1)	(2)	(3)	(4)
Post CRIR × Intraprovince × Enrollment	0.0039 (0.0122)	0.0105** (0.0043)	0.0303* (0.0157)	0.3149 (0.3238)
Sample	Sick/injured	Sick/injured & doctor visited	Sick/injured & doctor visited	Sick/injured & doctor visited
Year FE	YES	YES	YES	YES
Province FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Observations	98,702	63,873	18,933	1,406
Pseudo R ²	0.055	0.108	0.099	0.090
Mean of outcome	0.85	0.65	0.19	0.01

Table 9: Effects of CRIR on inpatient outcomes

	Hospitalized	log(Hospital expenses)	Hospital reimbursement rate
	(1)	(2)	(3)
Post CRIR × Intraprovince × Enrollment	0.0288* (0.0153)	0.0224 (0.1084)	0.1045* (0.0586)
Sample	Full	Hospitalized	Hospitalized & reimbursed
Year FE	YES	YES	YES
Province FE	YES	YES	YES
Covariates	YES	YES	YES
Observations	157,558	10,355	7,042
Pseudo R ² /R ²	0.236	0.101	0.124
Mean of outcome (original scale)	0.07	9,728.90	0.53

Mechanism I: Healthcare Utilization

- Decomposing the Impact:

$$\Delta\text{Outcome} = \sum_j \left[\Delta\text{Share}_j \times \text{Usage}_j^{\text{pre}} \right] + \sum_j \left[\text{Share}_j^{\text{pre}} \times \Delta\text{Usage}_j \right] + \sum_j \left[\Delta\text{Share}_j \times \Delta\text{Usage}_j \right]$$

Table 10: Decomposition of policy effects on insurance choice and healthcare utilization among intra-provincial migrants

Scheme selection	Share ^{pre}	ΔShare	Usage ^{pre}	ΔUsage	Extensive effect	Intensive effect	Interaction	Total effect
<i>Panel A. Doctor visited</i>								
Local UEBMI enrollment	0.147	0.016**	0.833	0.000	0.013**	0.000	0.000	0.013**
Local URRBMI enrollment	0.075	0.002	0.874	-0.021	0.001	-0.002	0.000	0.000
Home UEBMI/URRBMI enrollment	0.719	0.011	0.868	0.009	0.009	0.007	0.000	0.016*
Not enrolled	0.081	-0.028***	0.843	0.003	-0.024***	0.000	0.000	-0.024***
Total	-	-	-	-	0.000	0.005	0.000	0.006
<i>Panel B. Visited local health organizations (conditional on doctor visited)</i>								
Local UEBMI enrollment	0.174	0.016**	0.988	0.020***	0.016**	0.003***	0.000*	0.020***
Local URRBMI enrollment	0.085	0.002	0.986	0.003	0.002	0.000	0.000	0.002
Home UEBMI/URRBMI enrollment	0.706	0.011	0.978	-0.003	0.010	-0.002	0.000	0.008
Not enrolled	0.083	-0.028***	0.983	-0.010	-0.028***	-0.001	0.000	-0.028***
Total	-	-	-	-	0.000	0.001	0.001*	0.001

Mechanism II: Dose the Reform Induce Adverse Selection?

Table 11: Illness incidence by scheme selection

	Sick/injured	
	(1)	(2)
Post CRIR × Intraprovince	0.0152 (0.0130)	-0.0174 (0.0125)
Post CRIR × Intraprovince × Enrollment	-0.0169 (0.0109)	
Post CRIR × Intraprovince × Local UEBMI enrollment		0.0181 (0.0144)
Post CRIR × Intraprovince × Local URRBMI enrollment		0.0032 (0.0126)
Post CRIR × Intraprovince × Home UEBMI/URRBMI enrollment		0.0151 (0.0114)
Year FE	YES	YES
Province FE	YES	YES
Observations	450,825	433,360
Pseudo R^2	0.177	0.177
Mean of outcome	0.25	0.25

Mechanism III: Impact on Migrants' Wellbeing and Socioeconomic Outcomes

- Consumption Decisions:

Table 12: Ex-ante/ex-post effects of CRIR on consumption

	log(Monthly family consumption)	
	(1)	(2)
Post CRIR × Intraprovince × UEBMI enrollment	0.0176 (0.0156)	0.0265* (0.0159)
Post CRIR × Intraprovince × URRBMI enrollment	0.0277* (0.0150)	0.0038 (0.0135)
Post CRIR × Intraprovince	-0.0386** (0.0180)	-0.0023 (0.0159)
UEBMI enrollment	0.0188*** (0.0057)	0.0116*** (0.0044)
URRBMI enrollment	-0.0426*** (0.0054)	-0.0388*** (0.0044)
Observations	336,889	559,783
R ²	0.526	0.525
Year FE	YES	YES
Province FE	YES	YES
Sample	Not sick/injured	Sick/injured
Mean of outcome (original value)	3,388.13	3,461.25

Mechanism III: Impact on Migrants' Wellbeing and Socioeconomic Outcomes

- Consumption Decisions:

Table 13: Effects of CRIR on Consumption by Health Risk and Income

	log(Monthly family consumption)			
	(1)	(2)	(7)	(8)
Post CRIR × Intraprovince × UEBMI enrollment	0.0180 (0.0132)	0.0435** (0.0199)	0.0682*** (0.0192)	0.0397** (0.0184)
Post CRIR × Intraprovince × URRBMI enrollment	0.0138 (0.0124)	0.0254 (0.0173)	0.0524*** (0.0198)	0.0394*** (0.0130)
Post CRIR × Intraprovince	-0.0205 (0.0147)	-0.0290* (0.0163)	-0.0647*** (0.0199)	-0.0544** (0.0211)
UEBMI enrollment	0.0159*** (0.0042)	0.0073* (0.0044)	0.0302*** (0.0053)	0.0168*** (0.0063)
URRBMI enrollment	-0.0410*** (0.0040)	-0.0378*** (0.0040)	-0.0257*** (0.0041)	-0.0564*** (0.0061)
Observations	472,882	423,790	454,518	442,154
R ²	0.535	0.505	0.116	0.163
Year FE	YES	YES	YES	YES
Province FE	YES	YES	YES	YES
Sample	Lower age	Higher age	Lower income	Higher income
Mean of outcome (original value)	3,600.82	3,247.39	2,327.08	4,571.43

Mechanism III: Impact on Migrants' Wellbeing and Socioeconomic Outcomes

- Other Socioeconomic Outcomes:

Table 14: Effects of CRIR on household accompanying migration intentions

	Spousal migration intent by gender			Elderly migration intent by age		
	(1)	(2)	(3)	(4)	(5)	(6)
Post CRIR × Intraprovince × Enrollment	0.0182*** (0.0069)	0.0309*** (0.0093)	0.0022 (0.0082)	0.0403* (0.0220)	0.0113 (0.0711)	-0.0147 (0.0957)
Post CRIR × Intraprovince	-0.0123 (0.0103)	-0.0235* (0.0122)	0.0058 (0.0117)	-0.0393 (0.0260)	-0.0533 (0.0750)	-0.0356 (0.0971)
Enrollment	-0.0016 (0.0028)	-0.0142*** (0.0033)	0.0114*** (0.0029)	-0.0089 (0.0104)	-0.0132 (0.0144)	-0.0183 (0.0203)
Year FE	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES
Sample	Full	Male	Female	Age≤55	55<Age≤65	Age>65
Covariates	YES	YES	YES	YES	YES	YES
Observations	842,634	444,609	398,025	42,665	23,431	12,720
Pseudo R ²	0.098	0.098	0.115	0.138	0.158	0.176
Mean of outcome	0.87	0.86	0.88	0.84	0.75	0.68

Mechanism III: Impact on Migrants' Wellbeing and Socioeconomic Outcomes

- Other Socioeconomic Outcomes:

Table 15: Effects of CRIR on family plan decisions

	Respondent's			Respondent's offspring	
	Marriage age	Number of children	Number of children born after CRIR implementation	Born locally	Born locally after CRIR implementation
	(1)	(2)	(3)	(4)	(5)
Post CRIR × Intraprovince × Enrollment	-0.1217 (0.1017)	-0.0345 (0.0303)	0.0022 (0.0117)	0.0273*** (0.0103)	0.0587** (0.0246)
Post CRIR × Intraprovince	-0.0111 (0.1233)	0.0510 (0.0341)	0.0156 (0.0143)	-0.0127 (0.0120)	-0.0235 (0.0295)
Enrollment	-0.2350*** (0.0219)	0.0062* (0.0035)	-0.0014 (0.0011)	-0.0307*** (0.0024)	-0.0302*** (0.0108)
Year FE	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES
Sample	Full	Full	Full	Full	Born after CRIR implementation
Observations	742,640	728,385	728,385	1,045,860	42,767
Pseudo R^2 / R^2	0.153	0.411	0.200	0.133	0.068
Mean of outcome	23.75	1.59	0.06	0.21	0.57

- We also find that CRIR has minimal immediate impact on labor supply, home ownership, or permanent settlement.

Heterogeneous Effects on UEBMI Enrollment

- CRIR substantially increases UEBMI enrollment among **older migrants, informal workers, less-educated migrants and female migrants.**

(a) By health risk and employment type (b) By income, education status, and gender

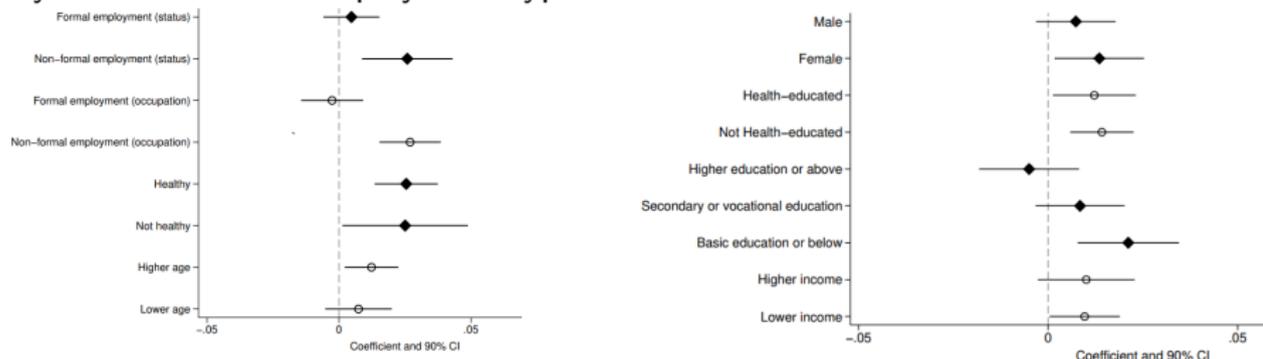


Figure 7: Heterogeneous effects on UEBMI enrollment

Heterogeneous Effects on URRBMI Enrollment

- comparable yet distinct patterns
- the effect is stronger for unhealthy individuals

(a) By health risk and employment type (b) By income, education status, and gender

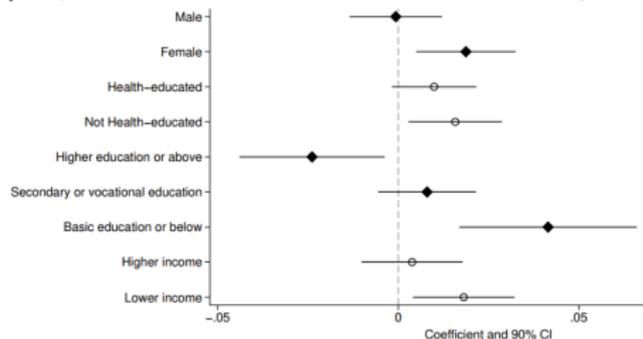
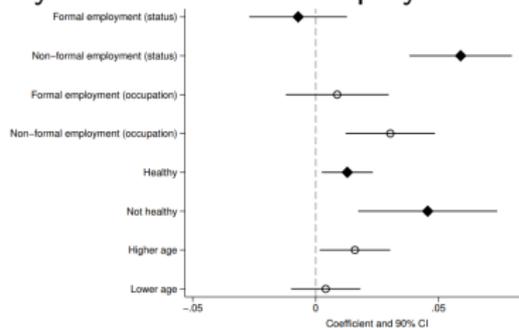


Figure 8: Heterogeneous effects on URRBMI enrollment

Conclusion

- CRIR increased health insurance enrollment, promote healthcare resource utilization, and reduced out-of-pocket costs.
- Removing administrative barriers promoted equity in access to healthcare resource.
- CRIR benefited urbanization process of migrant workers.
- CRIR's success offers lessons for decentralized welfare systems, emphasizing simplified procedures and fiscal coordination.

Thanks!

Email: hchen.econ@xmu.edu.cn

Falsification Tests

Table 5: Effects of CRIR on other social insurance enrollment

	Unemployment insurance	Work-related injury insurance	Maternity insurance
	(1)	(2)	(3)
Post CRIR × Intraprovince	0.0088 (0.0309)	0.0188 (0.0270)	0.0040 (0.0266)
Post CRIR	0.0025 (0.0128)	0.0198 (0.0140)	0.0114 (0.0153)
Intraprovince	0.0094** (0.0047)	0.0128*** (0.0049)	0.0107** (0.0051)
Year FE	YES	YES	YES
Province FE	YES	YES	YES
Covariates	YES	YES	YES
Observations	280,722	280,555	279,672
Pseudo R^2	0.341	0.314	0.323
Mean of outcome	0.16	0.19	0.14

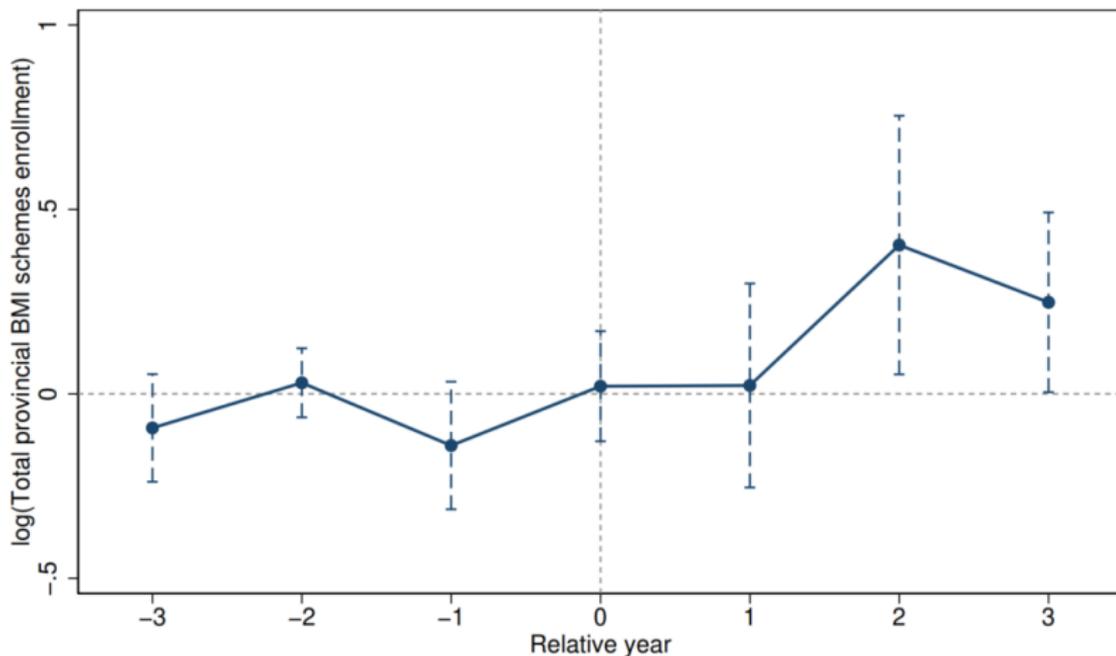
Subsample and Policy Overlap Robustness Checks

Table 6: Effects of CRIR across subsamples and under concurrent policies

	BMI schemes enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Individuals in poorer health		Excluding specific provinces		Controlling for concurrent policies		
Post CRIR × Intraprovince	0.0269** (0.0105)	0.0365* (0.0210)	0.0195*** (0.0070)	0.0186** (0.0073)	0.0276*** (0.0070)	0.0284*** (0.0071)	0.0277*** (0.0075)
Post Price × Intraprovince					-0.0065 (0.0051)		
Post Merge × Intraprovince						-0.0031 (0.0045)	
Post 2ndCRIR × Intraprovince							-0.0004 (0.0055)
Post CRIR	-0.0015 (0.0047)	-0.0236* (0.0132)	0.0013 (0.0054)	0.0012 (0.0059)	-0.0019 (0.0041)	-0.0019 (0.0042)	-0.0016 (0.0042)
Intraprovince	-0.0389*** (0.0022)	-0.0404*** (0.0113)	-0.0371*** (0.0021)	-0.0377*** (0.0021)	-0.0360*** (0.0023)	-0.0367*** (0.0023)	-0.0371*** (0.0023)
Sample	Sick/injured	Hospitalized	Centrally governed municipalities excluded	CRIR implemented in 2013-2018	Full	Full	Full
Year FE	YES	YES	YES	YES	YES	YES	YES
Province FE	YES	YES	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES	YES	YES
Observations	559,783	10,477	768,457	720,032	896,672	896,672	896,672
Pseudo R ²	0.075	0.111	0.083	0.084	0.082	0.082	0.082
Mean of outcome	0.90	0.90	0.90	0.90	0.90	0.90	0.90

Alternative Estimation Strategy: Callaway and Sant' Anna (2021)

Figure 6: Robustness test using alternative DID estimator



Validating Identification through Practical Preconditions

Table 7: Examining practical preconditions for CRIR effectiveness

	BMI schemes enrollment		
	(1)	(2)	(3)
Post CRIR \times Intraprovince	-0.0100 (0.0160)	0.0022 (0.0137)	0.0146* (0.0081)
Post CRIR \times Intraprovince \times Household labor urbanization rate	0.2713*** (0.0944)		
Post CRIR \times Intraprovince \times Commercial insurance participation rate		0.5313** (0.2481)	
Post CRIR \times Intraprovince \times Executive efficiency			0.1518** (0.0600)
Year FE	YES	YES	YES
Province FE	YES	YES	YES
Covariates	YES	YES	YES
Observations	894,909	893,124	817,781
Pseudo R^2	0.0816	0.0818	0.0816
Mean of outcome	0.90	0.90	0.90