

#### Utilising Multi-disciplinary Research to Promote Global Health System Preparedness: Early Evidence from China

利用多学科研究促进全球卫生系统的准备力:来自中国的初步成果

Dr Yuxi Zhang
UCL Global Business School for Health
Global China Dialogue VIII
8th December 2023







#### **Presentation overview**



#### 演讲概览

Tackling the challenge of regional disparities in the health system.
 应对医疗卫生系统地区差异所构成的挑战。

2. Promoting trust in the health system in response to future health crisis. 提升医疗卫生系统中的信任度以应对未来的健康危机。



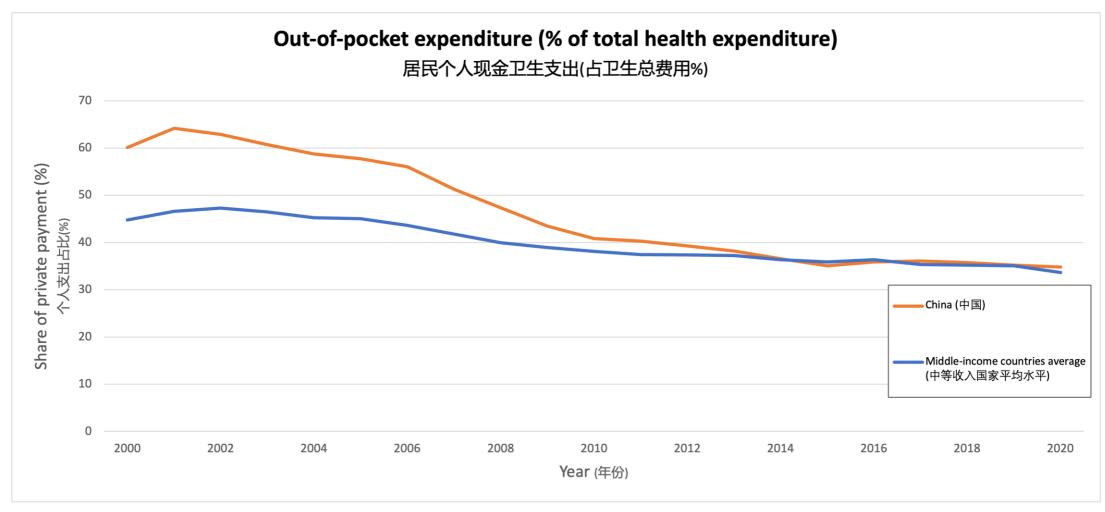
# 1. Tackling the challenge of regional disparities in the health system

第一部分: 应对医疗卫生系统地区差异所构成的挑战

### China's proud achievement in realising Universal Health Coverage in the 21<sup>st</sup> Century.



21世纪以来,中国在实现"全民健康覆盖"目标上取得了值得骄傲的成就。



License: CC BY-4.0

### Regional disparities in health policy and service provision are shared challenges for many emerging economies.



医疗卫生政策与服务供给的地区差异是困扰许多新兴经济体的一大挑战。

Figure A. Cluster analysis of Chinese provincial social health insurance policy (2008)

基于中国省级社会医保政策的聚类分析(2008)

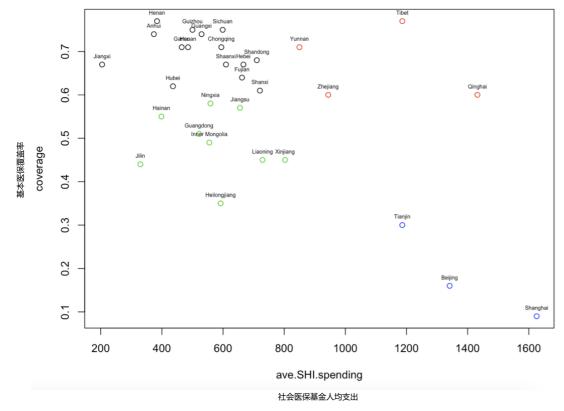
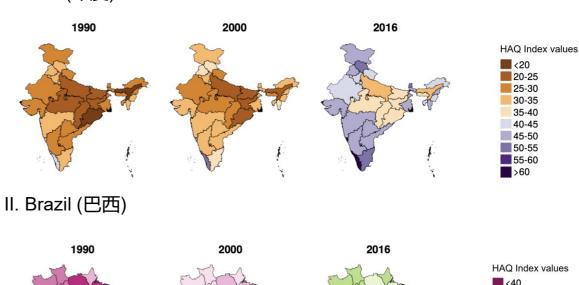
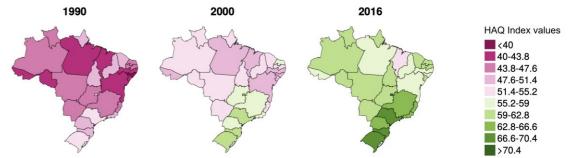


Figure B. Map of subnational Healthcare Access and Quality Index values (国内地区医疗可及性和质量指数地图)

#### I. India (印度)





Source: Fullman, N. et al (2018) (2018). Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016. In The Lancet. https://doi.org/10.1016/s0140-6736(18)30994-2

## Even in OECD countries, regional disparities in the healthcare system are prevalent and have undermined systemic preparedness for the pandemic.



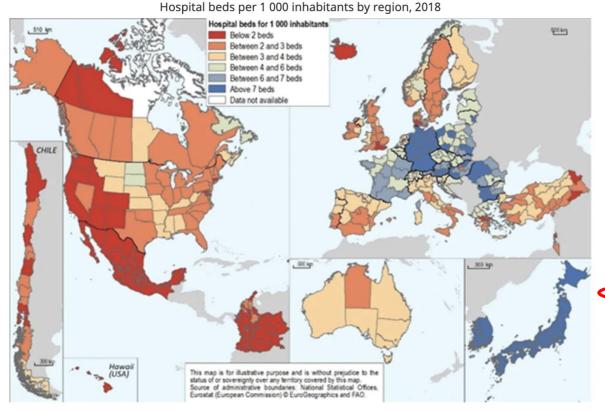
即使在经合组织国家,医疗卫生系统也普遍存在地区差异,并削弱了系统应对大流行病的准备度。

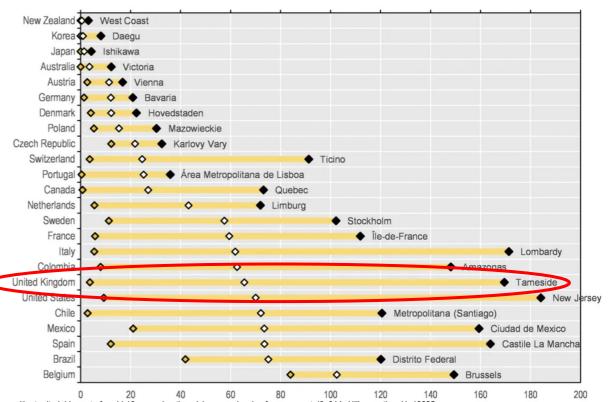
A. Large regional disparities in accessing health services exist in OECD countries (经合组织国家在医疗卫生服务可及性方面存在较大的地区差异)

B. Within-country differences in COVID-19 fatalities among OECD countries (经合组织国家国内疫情病死率的地区差异)

COVID-19 fatalities per 100,000 inhabitants, NUTS-2 (TL2) regions as of November 2020

◆lowest ◆ average ◆ highest





### Since the 2009 "New Healthcare reform", China has implemented multiple measures to address the disparities in local health systems.



自2009年"新医改"以来,中国实施了多项举措来解决地方医疗卫生系统差异化的问题。

Adopt a progressive tiered approach to subsidise local public spending on health, with 80% covered by central finance in the least developed provinces and only 10% in the most developed provinces (State Council, 2018). 中央财政采用累进分档的办法补助地方卫生支出。在欠发达地区,中央财政承担80%的支出责任;在最发达地区,中央财政仅承担10%的支出责任。

Elevate the administrative level of basic social health insurances, reducing the number of concurrently running local insurance programmes from more than 2,000 to around 400, thereby improving the coordination level of local reimbursement policies.

提高基本社会医保的统筹层次,将并行的地方医保项目从超过2000个减少到约400个,进而提升了地方报销政策的协同性。

Develop the national social health insurance cross-regional clearing and settlement digital system to enable the vast domestic migrant population in China to receive instant cross-regional insurance reimbursements. 建设国家社会医保异地就医结算数字系统,让中国广大的国内流动人口能够享受跨区域实时报销。

是反因然在云色体开起就色组开数于水坑,在下**国**广入时国门流动八口能够于文的区域关闭区

### Digital innovation supports health governance and enhances systemic preparedness for future risks.



数字创新助力医疗卫生管理,提升系统应对未来风险的准备能力。

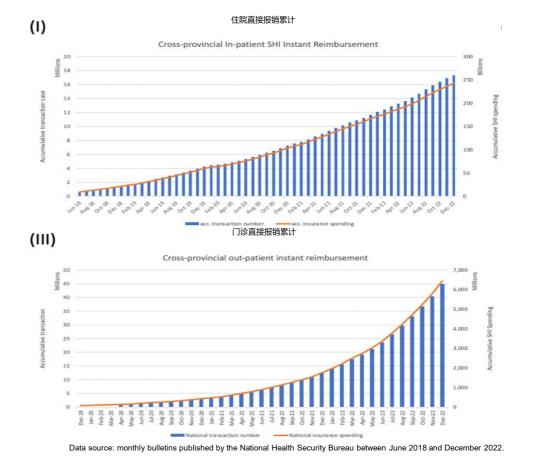
The usage of national social health insurance crossregional reimbursement digital platform has kept growing during the pandemic.

全国社会医保跨区域报销数字平台的使用率在疫情期间持续增长。

This digital and policy innovation significantly reduces regional disparities in the health system and health outcomes by supporting patient mobility and choice.

该数字和政策创新有助于病人跨区域流动和行使选择权,从而缓解了由于地方医疗卫生事业发展不均衡所造成的负面健康后果。

Cumulative numbers and fund spending on instantly settling cross-provincial social health insurance claims in China (06/18-12/22) 全国社会医保跨省异地就医直接结算累计人次和基金支付总额 (06/18-12/22)





# 2. Promoting trust in the health system in response to future health crisis

第二部分: 提升医疗卫生系统中的信任度以应对未来的健康危机

### Global research evidence shows that decisive non-pharmaceutical policy interventions support better pandemic outcomes.



全球研究证据表明果断实施非药物干预政策有利于取得更好的疫情防控效果。

#### Association between government policy stringency and deaths by pandemic wave. 政府政策强度与死亡人数间的相关性(国家按经历疫情周期数量分组)

	(1)	(2)	(3)	(4)
	Pooled Estimates for All Countries	One-Wave Countries	Two-Wave Countries	Three-Wave Countries
LAGGED STRINGENCY BY 28 DAYS	-0.006***			
	(0.001)			
	[0.000]			
LAGGED STRINGENCY BY 28 DAYS: WAVE 1		-0.005***	-0.004***	-0.021***
		(0.001)	(0.001)	(0.002)
		[0.000]	[0.000]	[0.000]
LAGGED STRINGENCY BY 28 DAYS: WAVE 2			-0.008***	-0.031***
			(0.001)	(0.002)
			[0.000]	[0.000]
LAGGED STRINGENCY BY 28 DAYS: WAVE 3				-0.028***
				(0.002)
				[0.000]
COUNTRIES	113	40	63	10
R2	0.76	0.75	0.76	0.81
COUNTRY FIXED EFFECTS	Yes	Yes	Yes	Yes
TIME TREND	Yes	Yes	Yes	Yes
LAGGED DEATHS CONTROL	Yes	Yes	Yes	Yes

Notes: All regressions coefficients are included in the table, followed by standard errors in parentheses and p-values in square brackets. Stars signify statistical significance at conventional thresholds.

#### Social trust is a vital dimension of systemic preparedness for health risks



信任是构建系统应对健康风险的能力的关键环节。

➤ Higher institutional trust significantly reduces pandemic fatality rate and interpersonal trust significantly slows the transmission of virus (Yuan et al., 2022).

机构信任水平与疫情病死率显著负相关; 人际信任水平与病毒传播 速度显著负相关。

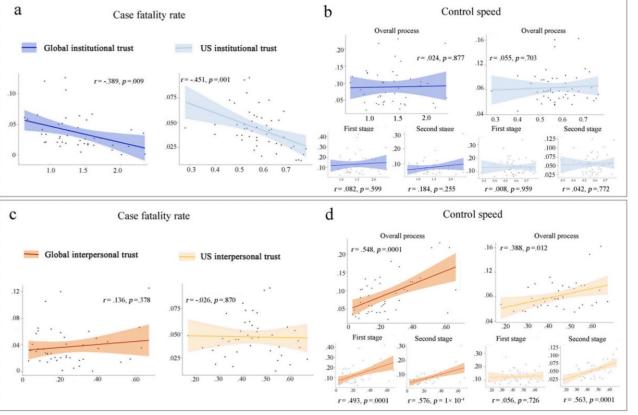
➤ Interpersonal trust helps maintain people's compliance to public policies on limiting human mobility (Petherick et al., 2021).

强人际信任有助于人们持续遵守限制行动的公共政策。

➤ Social trust boosts people's willingness to wear masks and receive vaccines as they believe their fellow citizens will do the same for reciprocity (Latkin et al., 2021).

强社会信任可以增强人们戴口罩和打疫苗的意愿,因为他们相信其它社会成员也会做同样的事,从而达到"互惠"效果。

Association between institutional trust and interpersonal trust, and pandemic indicators (global and US samples) 机构信任与人际信任和疫情指标间的相关性(全球和美国样本)



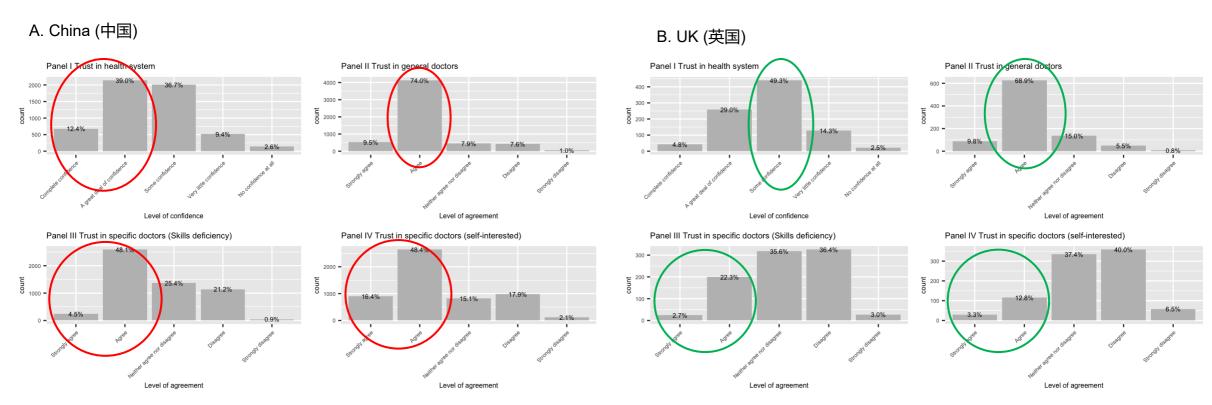
Source: Yuan, H., Long, Q., Huang, G., Huang, L., & Luo, S. (2022). Different roles of interpersonal trust and institutional trust in COVID-19 pandemic control. In Social Science & Amp; Medicine (Vol. 293, p. 114677). Elsevier BV. https://doi.org/10.1016/j.socscimed.2021.114677

### Institutional and interpersonal trust in healthcare settings display different patterns in different countries.



在医疗卫生领域,机构信任和人际信任模式体现出明显的国别特征。

#### ISSP Survey on trust in the health system and doctors (2011 wave) 国际社会调查-人口对医疗卫生系统和医生的信任度(2011 调查周期)

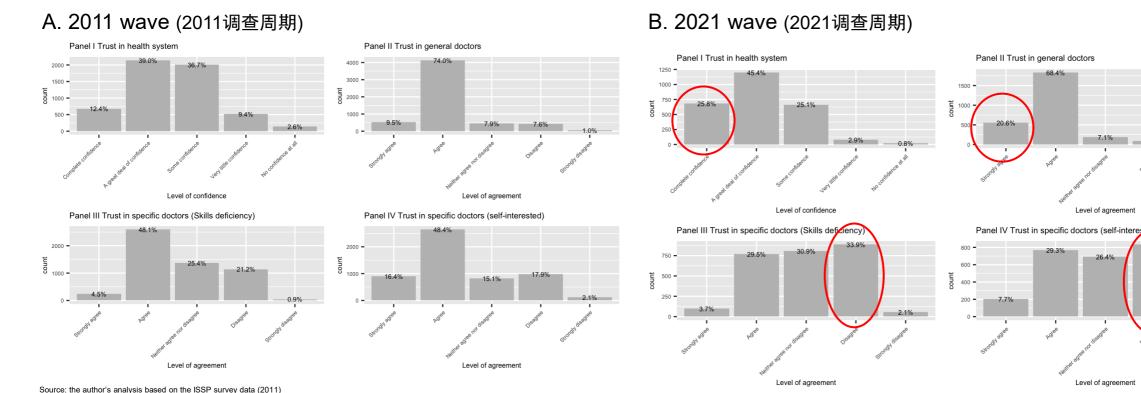


# Trust pattern exhibits stability over time, with its weaker dimensions being sensitive to policy intervention, highlighting trust-building as a vital dimension of global health system preparedness.



信任模式体现出历时的稳定性,但其薄弱环节对政策调控的响应度较高,因而信任建设是增强全球卫生系统准备能力的重中之重。

ISSP Survey on trust in the health system and doctors: China 国际社会调查-人口对医疗卫生系统和医生的信任度: 中国



#### Reference:



#### 参考文献

Fullman, N. et al (2018) (2018). Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016. *The Lancet.* https://doi.org/10.1016/s0140-6736(18)30994-2

Hale, T., Angrist, N., Hale, A. J., Kira, B., Majumdar, S., Petherick, A., Phillips, T., Sridhar, D., Thompson, R. N., Webster, S., & Zhang, Y. (2021). Government responses and COVID-19 deaths: Global evidence across multiple pandemic waves. *PLoS*. <a href="https://doi.org/10.1371/journal.pone.0253116">https://doi.org/10.1371/journal.pone.0253116</a>

Meng, K. & Zhang, Y. (2020) How China pays for its COVID-19 medical bills. World Economic Forum Agenda. <a href="https://www.weforum.org/agenda/2020/12/how-china-pays-for-its-covid-19-medical-bills/">https://www.weforum.org/agenda/2020/12/how-china-pays-for-its-covid-19-medical-bills/</a>

OECD (2020) The territorial impact of COVID-19: Managing the crisis across levels of government. Available from: <a href="https://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government-d3e314e1/#boxsection-d1e10825">https://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government-d3e314e1/#boxsection-d1e10825</a>

State Council (2018). The General Office of the State Council's Notice on Printing and Issuing the Reformative Plan for Dividing the Authority and Spending Responsibility in Medical and Healthcare Sector between Central and Local Fiscal Resources(关于印发医疗卫生领域中央与地方财政事权和支出责任划分改革方案的通知). <a href="http://www.gov.cn/zhengce/content/2018-08/13/content">http://www.gov.cn/zhengce/content/2018-08/13/content</a> 5313489.htm

Yuan, H., Long, Q., Huang, G., Huang, L., & Luo, S. (2022). Different roles of interpersonal trust and institutional trust in COVID-19 pandemic control. *Social Science &; Medicine*. https://doi.org/10.1016/i.socscimed.2021.114677

Zhang, Y. & Wang, Y. (2023) Rebuild pandemic preparedness within society: an exploratory study on public-expert dynamics in two countries. Presentation at the LSE-Fudan annual conference.

Zhang, Y. & (2023) The surprising impact of COVID-19 on domestic healthcare migration in China. LSE Global Health Blog. Available from: <a href="https://blogs.lse.ac.uk/globalhealth/2023/10/15/the-surprising-impact-of-covid-19-on-domestic-healthcare-migration-in-china/">https://blogs.lse.ac.uk/globalhealth/2023/10/15/the-surprising-impact-of-covid-19-on-domestic-healthcare-migration-in-china/</a>



- www.ucl.ac.uk/global-business-school-health
- □ admissionsgbsh@ucl.ac.uk
- twitter.com/ucl\_GBSH
- in www.linkedin.com/company/the-ucl-global-business-school-for-health
- f facebook.com/UCLGBSH