透过公平性视角审视MDG4、MDG5和可持续发展目标



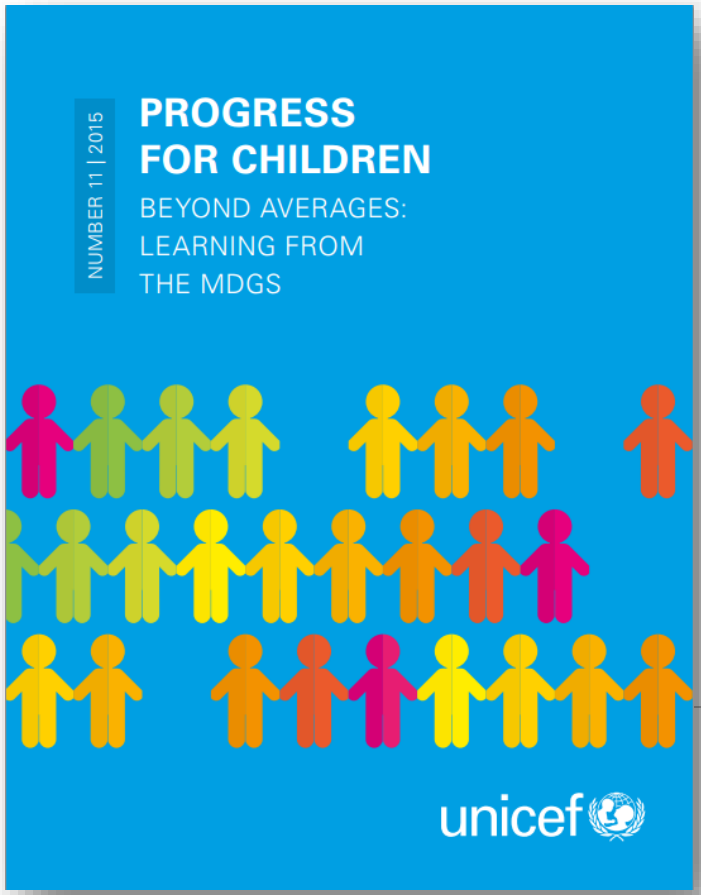

JEFFREY O'MALLEY

联合国儿童基金会纽约总部数据、研究和政策处处长

2015年10月

unicef

儿童工作的进展：超越平均数：从MDG中汲取的经验



uni.cf/PFC2015

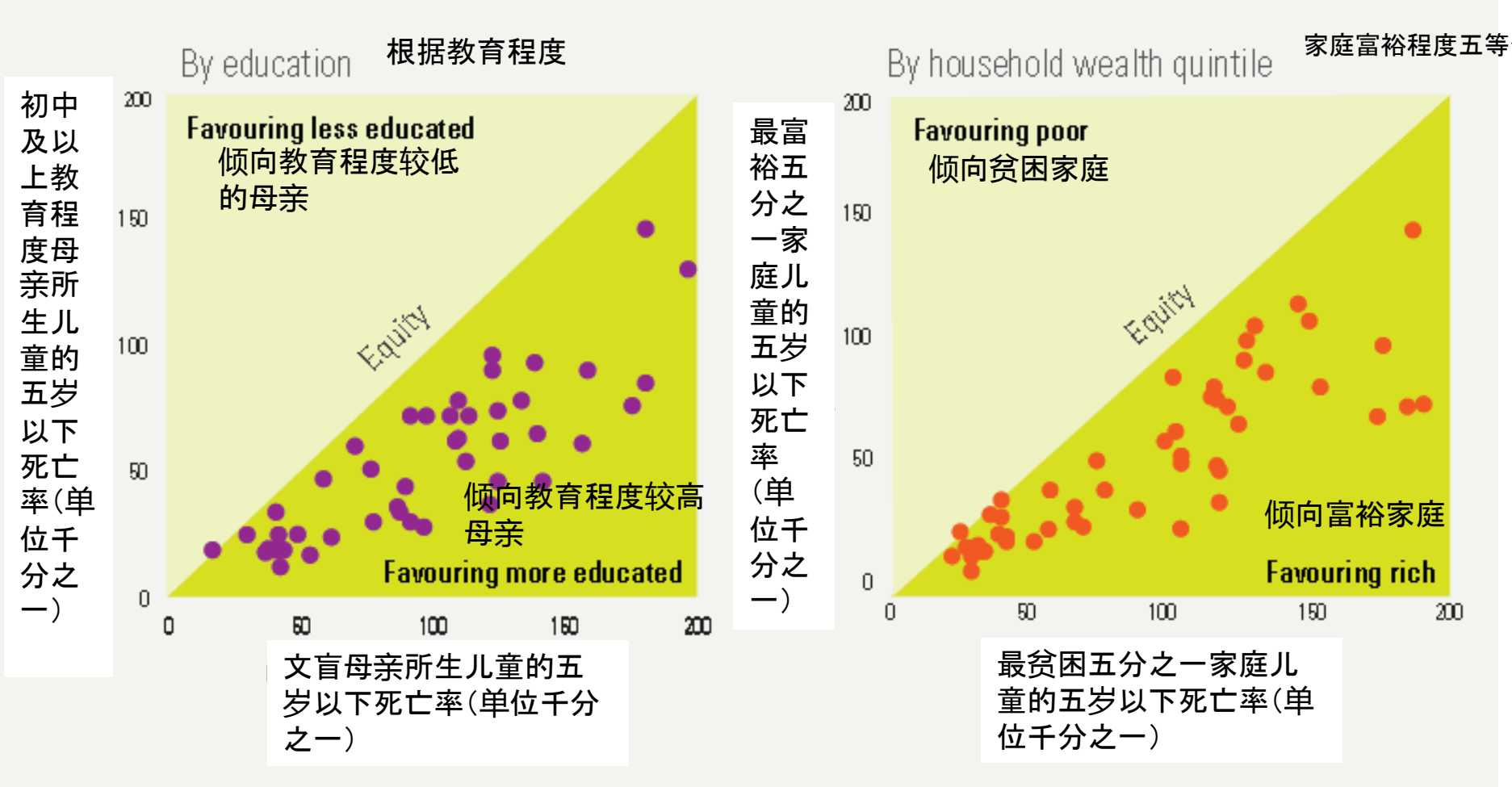
Access Online

重视儿童生存：重温承诺——2015年进展报告

uni.cf/APR2015

贫困家庭或者母亲受教育程度较低家庭的儿童五岁以下儿童死亡率较高

Under-five mortality rate by mother's education, and wealth, 2005-2010年根据母亲教育程度及家庭贫困状况所显示的五岁以下儿童死亡率



Source: UNICEF analysis based on Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and other nationally representative sources

重视公平性的原因

得益于MDG目标，全球儿童生活得以获得前所未有的改善。但是相关的进展并未惠及所有儿童。

由于全球不公现象，数亿儿童处于弱势境遇，这对各国的未来发展也造成了严重影响。

所以各国需要比以往更急需重视儿童公平性工作。

通过重视公平性来促进发展不仅仅在原则上正确，同时在实践中也具有良好成效。

缩小差距

最贫困儿童中的疾病负担、营养不良、健康状况不佳、文盲率和遭受虐待的比例较高。

重视公平性的工作方法可以通过降低儿童和孕产妇死亡率，改善营养不良，大幅提高关键初级保健和营养干预的有效覆盖率来获得较好的投资回报率。

MDG4：降低儿童死亡率

得益于各国的努力，全球儿童死亡率自1990年以来大幅下降，并且近年来下降速度所有加快。

然而，全球在此项工作的进展并不足以实现MDG4即降低三分之二五岁以下儿童死亡率的目标。

大部分的五岁以下儿童死亡的死因仍是容易通过成熟且具有成本效益的干预措施可预防和治疗的疾病。

虽然高负担的地区进展加速，然而负担的分布仍然高度不均衡。

全球一半的五岁以下儿童死亡数集中于前五个国家，三分之二发生于前14个国家，四分之三发生于前20个国家。

五岁以下儿童死亡率高居不下反映的是长期的弱势和持续的不公。

Equity in Child Survival, Health, and Nutrition 1

Strategies to improve health coverage and narrow the equity gap in child survival, health, and nutrition

改善儿童生存、保健和营养措施的覆盖和公平性差距策略

Mickey Chopra, Alyssa Sharkey, Nita Dalmiya, David Anthony, Nancy Binkin, on behalf of the UNICEF Equity in Child Survival, Health and Nutrition Analysis Team

Implementation of innovative strategies to improve coverage of evidence-based interventions, especially in the most marginalised populations, is a key focus of policy makers and planners aiming to improve child survival, health, and nutrition. We present a three-step approach to improvement of the effective coverage of essential interventions. First, we identify four different intervention delivery channels—ie, clinical or curative, outreach, community-based preventive or promotional, and legislative or mass media. Second, we classify which interventions' deliveries can be improved or changed within their channel or by switching to another channel. Finally, we do a meta-review of both published and unpublished reviews to examine the evidence for a range of strategies designed to overcome supply and demand bottlenecks to effective coverage of interventions that improve child survival, health, and nutrition. Although knowledge gaps exist, several strategies show promise for improving coverage of effective interventions—and, in some cases, health outcomes in children—including expanded roles for lay health workers, task shifting, reduction of financial barriers, increases in human-resource availability and geographical access, and use of the private sector. Policy makers and planners should be informed of this evidence as they choose strategies in which to invest their scarce resources.

Lancet 2012; 380: 1331–40

Published Online
September 20, 2012
http://dx.doi.org/10.1016/S0140-6736(12)61423-8

See **Editorial** page 1282

See **Comment** page 1286

See **Comment** *Lancet* 2012; **380:** 1125

This is the first in a **Series** of two papers about equity in child survival, health, and nutrition

Health Section (M Chopra MD, A Sharkey PhD), **Nutrition Section** (N Dalmiya MPH), **and**

unicef

The comparative cost-effectiveness of an equity-focused approach to child survival, health, and nutrition: a modelling approach

通过模型来测量重视公平性的儿童生存、保健和营养工作的相对成本效益

Carlos Carrera, Adeline Azrack, Genevieve Begkoyian, Jerome Pfaffmann, Eric Ribaira, Thomas O'Connell, Patricia Doughty, Kyaw Myint Aung, Lorena Prieto, Kumanan Rasanathan, Alyssa Sharkey, Mickey Chopra, Rudolf Knippenberg, on behalf of the UNICEF Equity in Child Survival, Health and Nutrition Analysis Team

Progress on child mortality and undernutrition has seen widening inequities and a concentration of child deaths and undernutrition in the most deprived communities, threatening the achievement of the Millennium Development Goals. Conversely, a series of recent process and technological innovations have provided effective and efficient options to reach the most deprived populations. These trends raise the possibility that the perceived trade-off between equity and efficiency no longer applies for child health—that prioritising services for the poorest and most marginalised is now more effective and cost effective than mainstream approaches. We tested this hypothesis with a mathematical-modelling approach by comparing the cost-effectiveness in terms of child deaths and stunting events averted between two approaches (from 2011–15 in 14 countries and one province): an equity-focused approach that prioritises the most deprived communities, and a mainstream approach that is representative of current strategies. We combined some existing models, notably the Marginal Budgeting for Bottlenecks Toolkit and the Lives Saved Tool, to do our analysis. We showed that, with the same level of investment, disproportionately higher effects are possible by prioritising the poorest and most marginalised populations, for averting both child mortality and stunting. Our results suggest that an equity-focused approach could result in sharper decreases in child mortality and stunting and higher cost-effectiveness than mainstream approaches, while reducing inequities in effective intervention coverage, health outcomes, and out-of-pocket spending between the most and least deprived groups and geographic areas within countries. Our findings should be interpreted with caution due to uncertainties around some of the model parameters and baseline data. Further research is needed to address some of these gaps in the evidence base. Strategies for improving child nutrition and survival, however, should account for an increasing prioritisation of the most deprived communities and the increased use of community-based interventions.

Lancet 2012; 380: 1341–51

Published Online September 20, 2012 http://dx.doi.org/10.1016/S0140-6736(12)61378-6

See Editorial page 1282

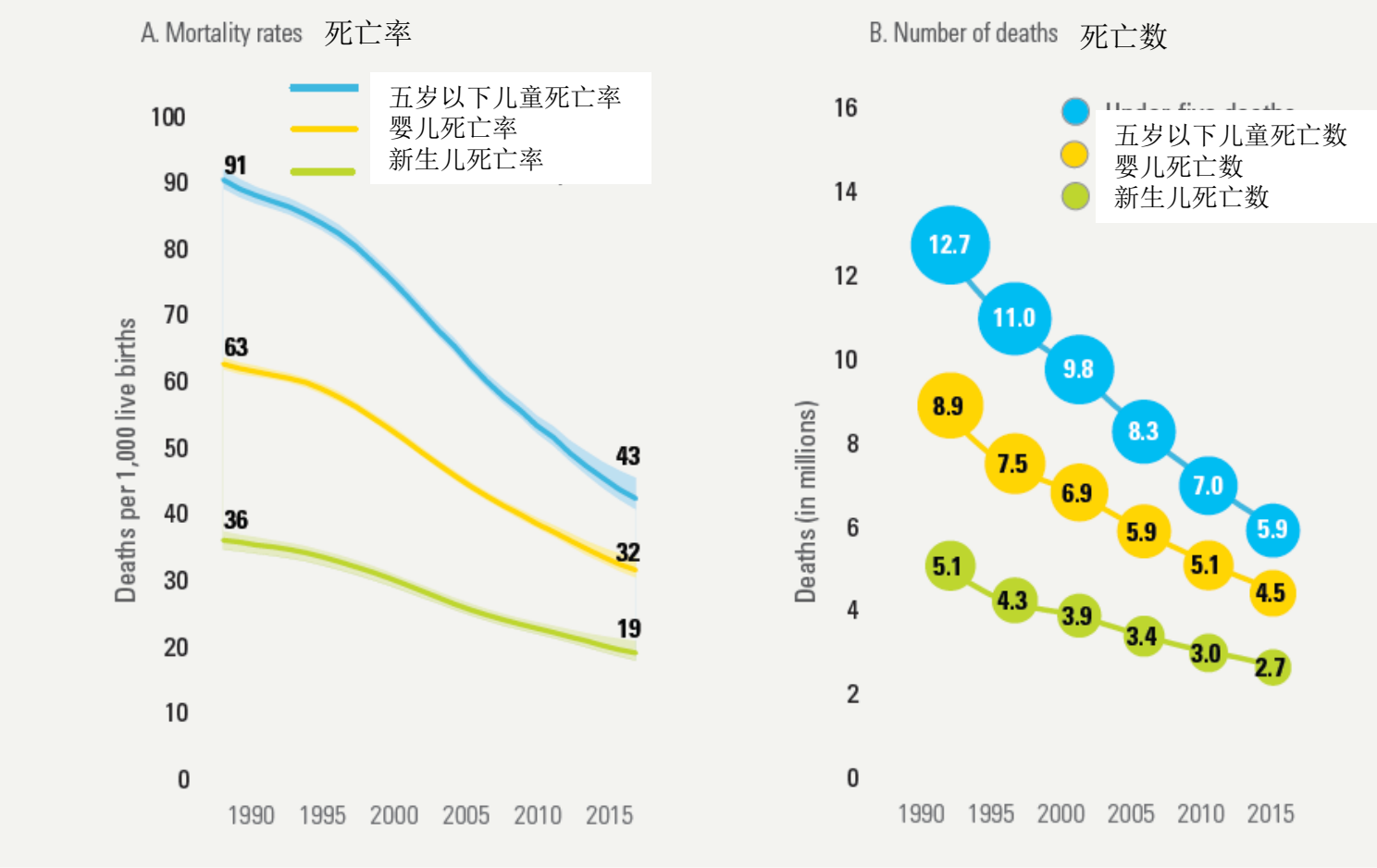
See Comment page 1286

This is the second in a Series of two papers about equity in child survival, health, and nutrition

UNICEF, UN Plaza, New York, NY, USA (C Carrera MA, T O'Connell MSc, P Doughty MPH, K Rasanathan FAFPHM, A Sharkey PhD, M Chopra MD, R Knippenberg DrPH); **UNICEF Ghana, Accra, Ghana** (A Azrack ScM); **UNICEF South Asia Regional Office, Kathmandu, Nepal** (G Begkoyian MD); **UNICEF West and Central Africa Office, Dakar, Senegal** (J Pfaffmann MSc);

自1990年以来，五岁以下儿童死亡率和死亡数均减少了一半

1990-2015 年全球五岁以下儿童、婴儿和新生儿死亡率和死亡数



Note: The shaded bands in Figure 1A are the 90 per cent uncertainty intervals around the estimates of under-five mortality rates.

Source: UN IGME 2015

unicef

高负担地区五岁以下儿童死亡率加快降低的进展并没有帮助消除主要的地区差役

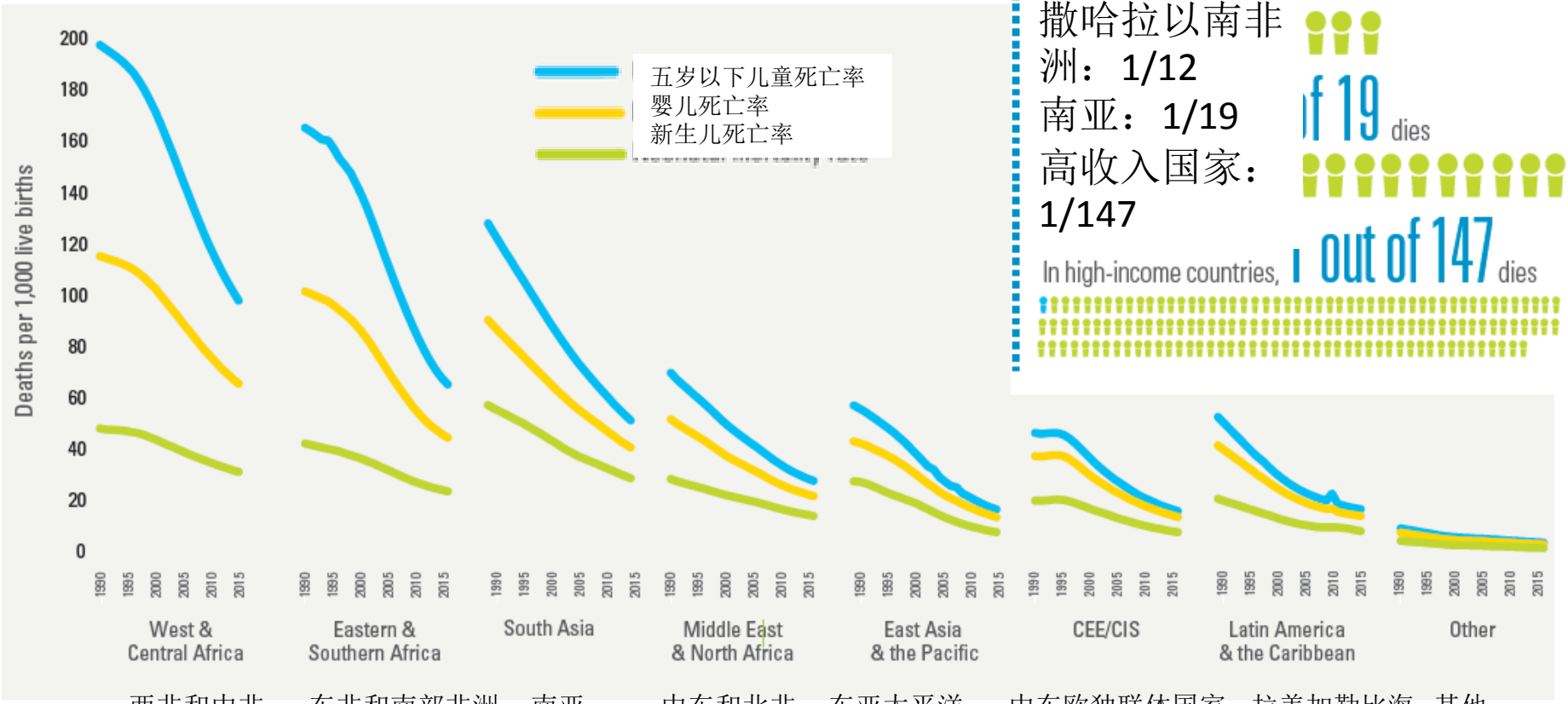
1990-2015年各地区的五岁以下儿童、婴儿和新生儿死亡率

地区五岁以下儿童死亡率

撒哈拉以南非洲：1/12

南亚：1/19

高收入国家：1/147



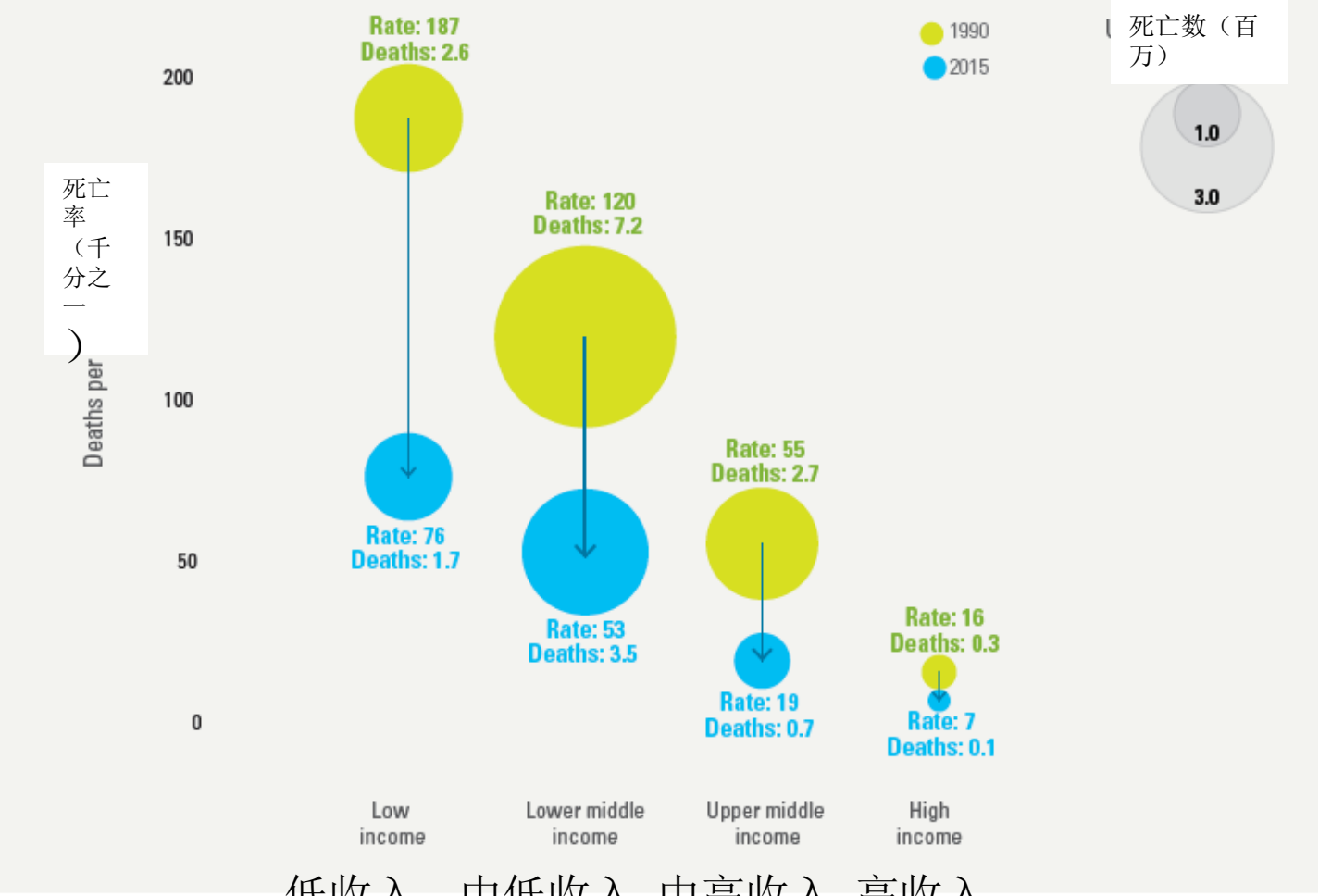
西非和中非　东非和南部非洲　南亚　中东和北非　东亚太平洋　中东欧独联体国家　拉美加勒比海　其他

Source: UN IGME 2015

unicef

虽然出现进展，低收入国家的五岁以下儿童死亡率仍比高收入国家要高

不同收入水平下1990 至2015年五岁以下儿童死亡率（垂直轴）及死亡数（圆圈面积）

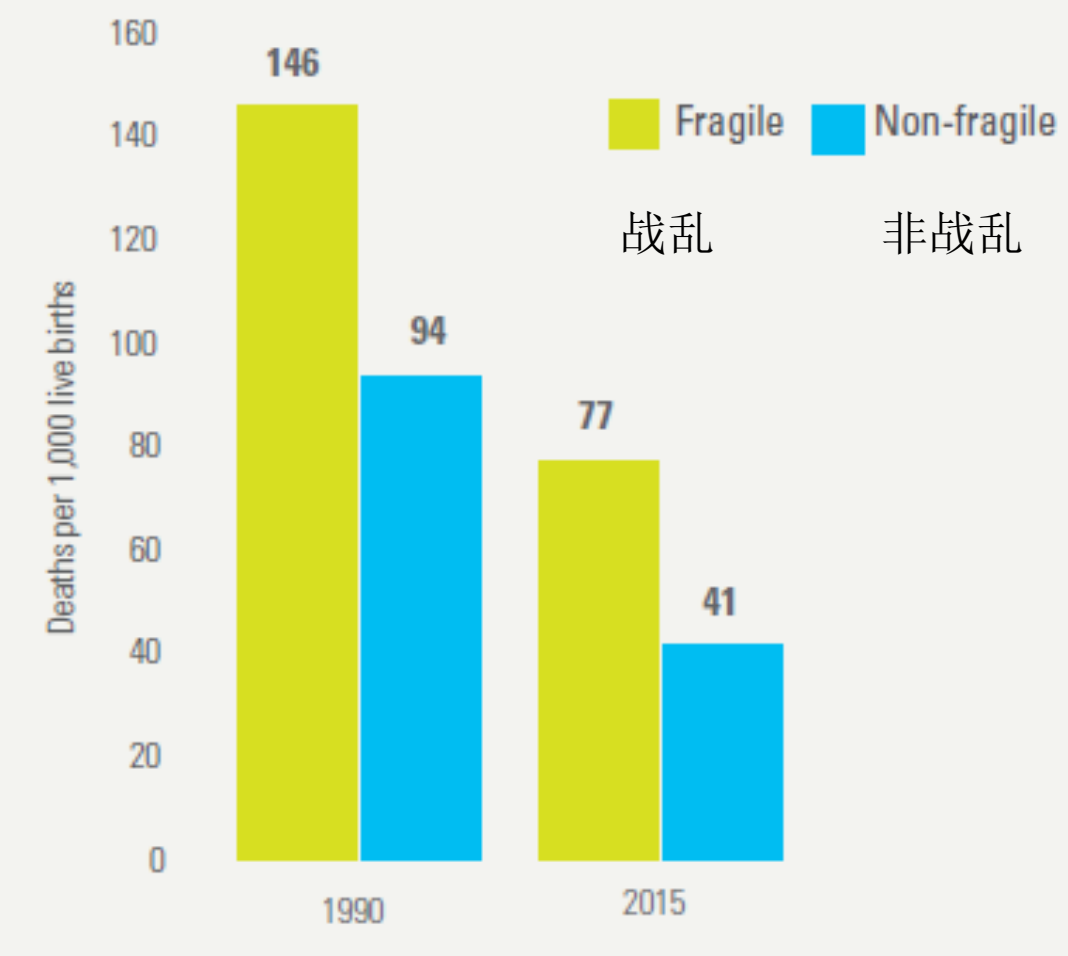


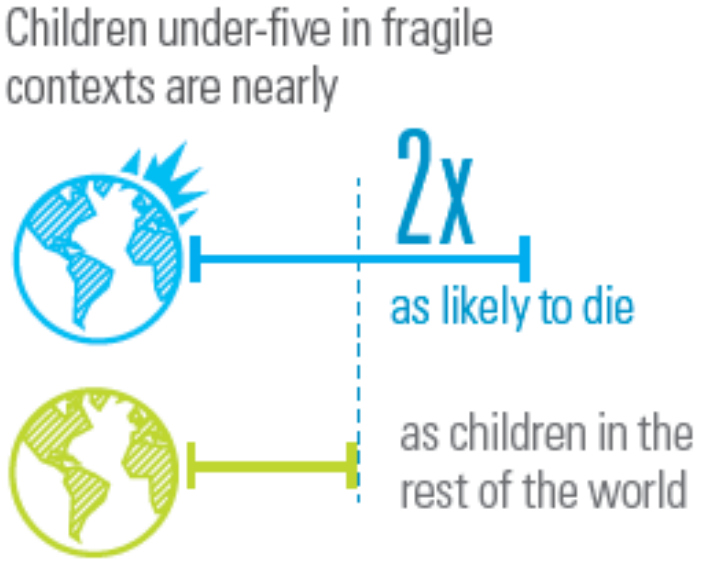
Note: The vertical axis refers to the under-five mortality rate and the size of the bubble is proportional to the number of under-five deaths.

Source: UN IGME 2015

战乱国家的五岁以下儿童死亡率是和平国家的两倍

1990及 2015间战乱国家的五岁以下儿童死亡率





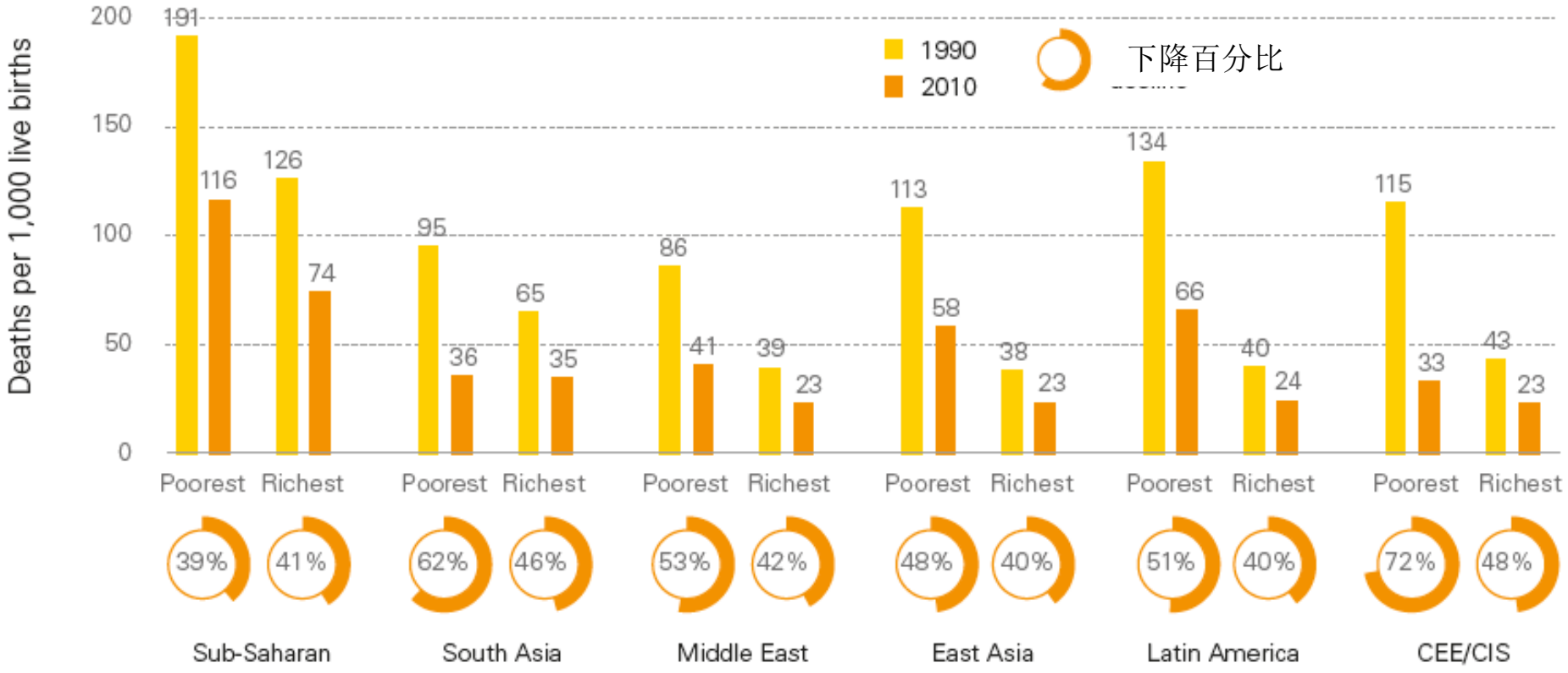
战乱国家儿童五岁死亡率
比其他地区的儿童高一倍

Note: Countries included in this analysis are only those in the seven geographically defined UNICEF regions listed on page 87.

Source: UNICEF analysis based on UN IGME 2015 and World Bank 2015

五岁以下儿童死亡率在最贫困家庭中的下降速度更快

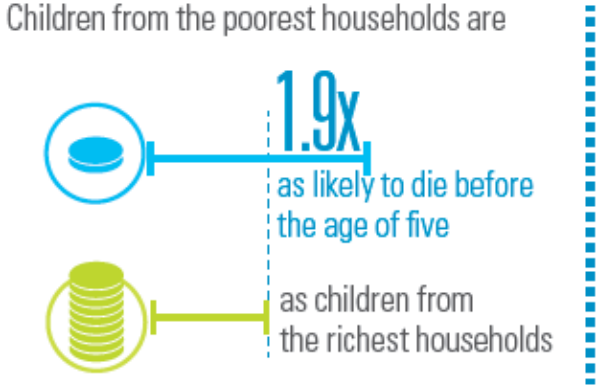
1990 及2010年间分地区和家庭富裕情况的五岁以下死亡率和下降幅度



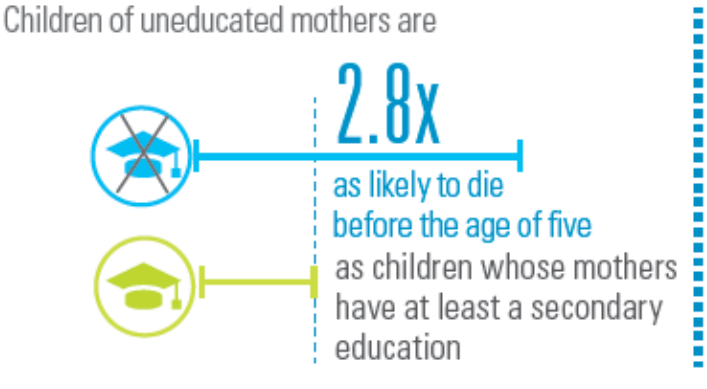
Source: UNICEF analysis based on DHS and MICS or UNICEF analysis based on J. Pedersen, L. Alkema and J. Liu. 'Levels and trends in inequity and child mortality: Evidence from DHS and MICS surveys.' Working paper, forthcoming 2015.

unicef

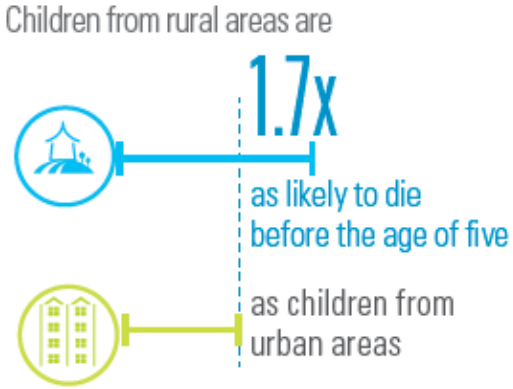
虽然出现进展，不同社会经济背景儿童的生存率存在较大差距



最贫困家庭儿童的五岁以下死亡率是最富裕家庭的1.9倍



文盲母亲所生儿童的五岁以下死亡率是至少拥有中学教育母亲儿童的2.8倍



农村地区儿童的五岁以下死亡率是城市地区的1.7倍

干净饮用水、环境卫生和个人卫生是儿童死亡率的关键影响因素

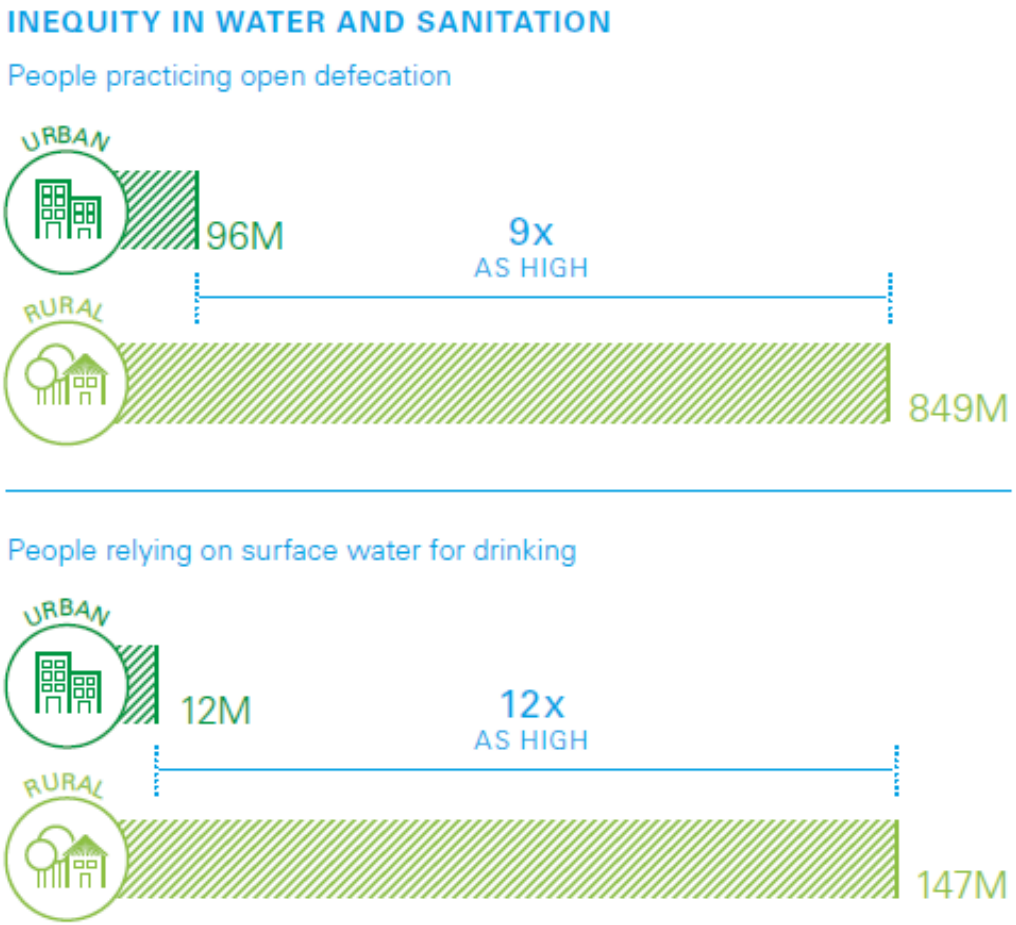
2015年有露天排便行为和饮用地表水人口数

水和环境卫生工作方面的差距

有露天排便行为的人口

城市：**9600**万
X9=
农村：**8.49**亿

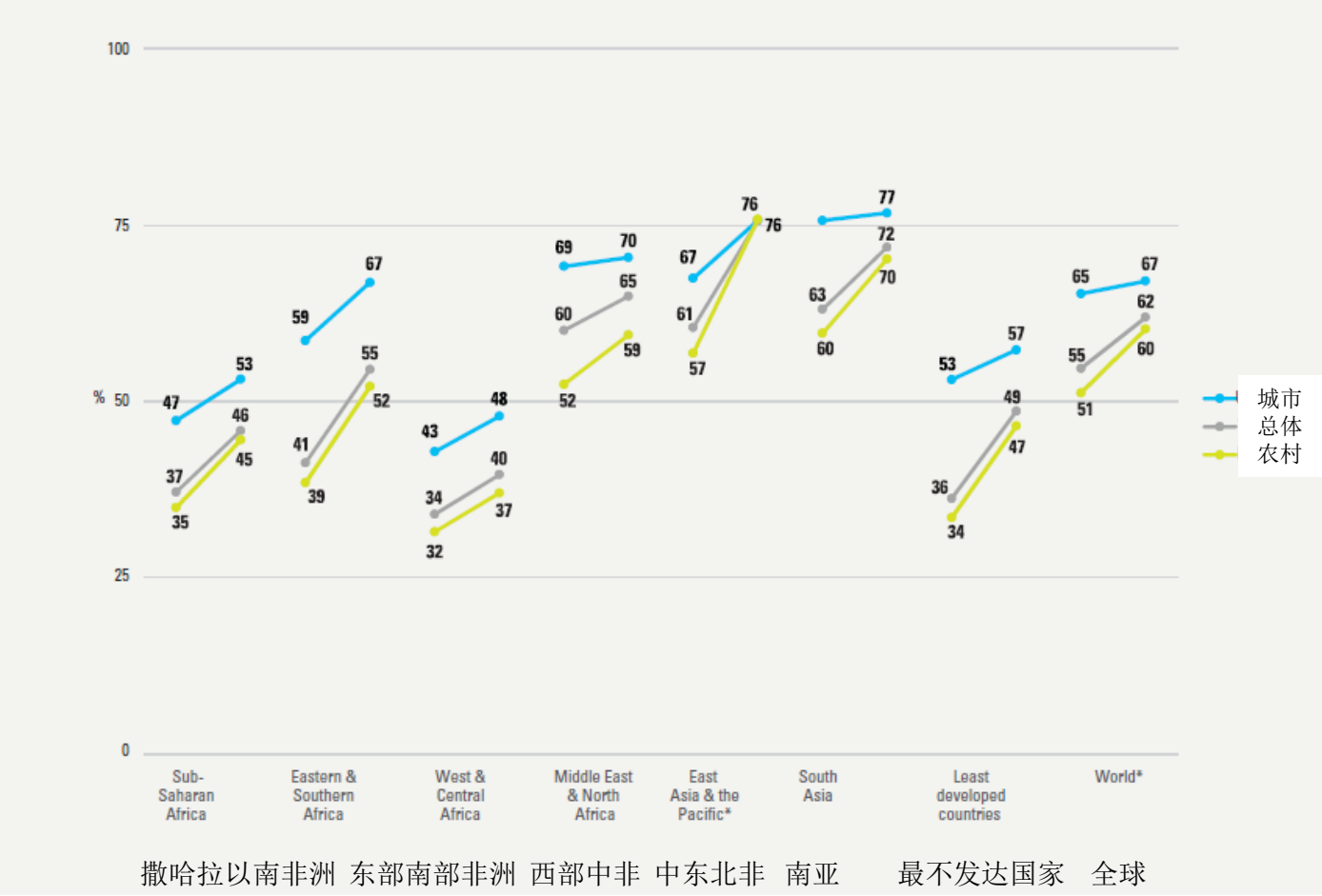
饮用地表水的人口：
城市：**1200**万
X12=
农村：**1.47**亿



unicef

五分之三患有急性呼吸道感染的儿童获得治疗，然而进展缓慢

各地区和居住地2000及 2014间五岁以下儿童拥有急性呼吸道感染症状获得治疗的比例



*Excludes China.

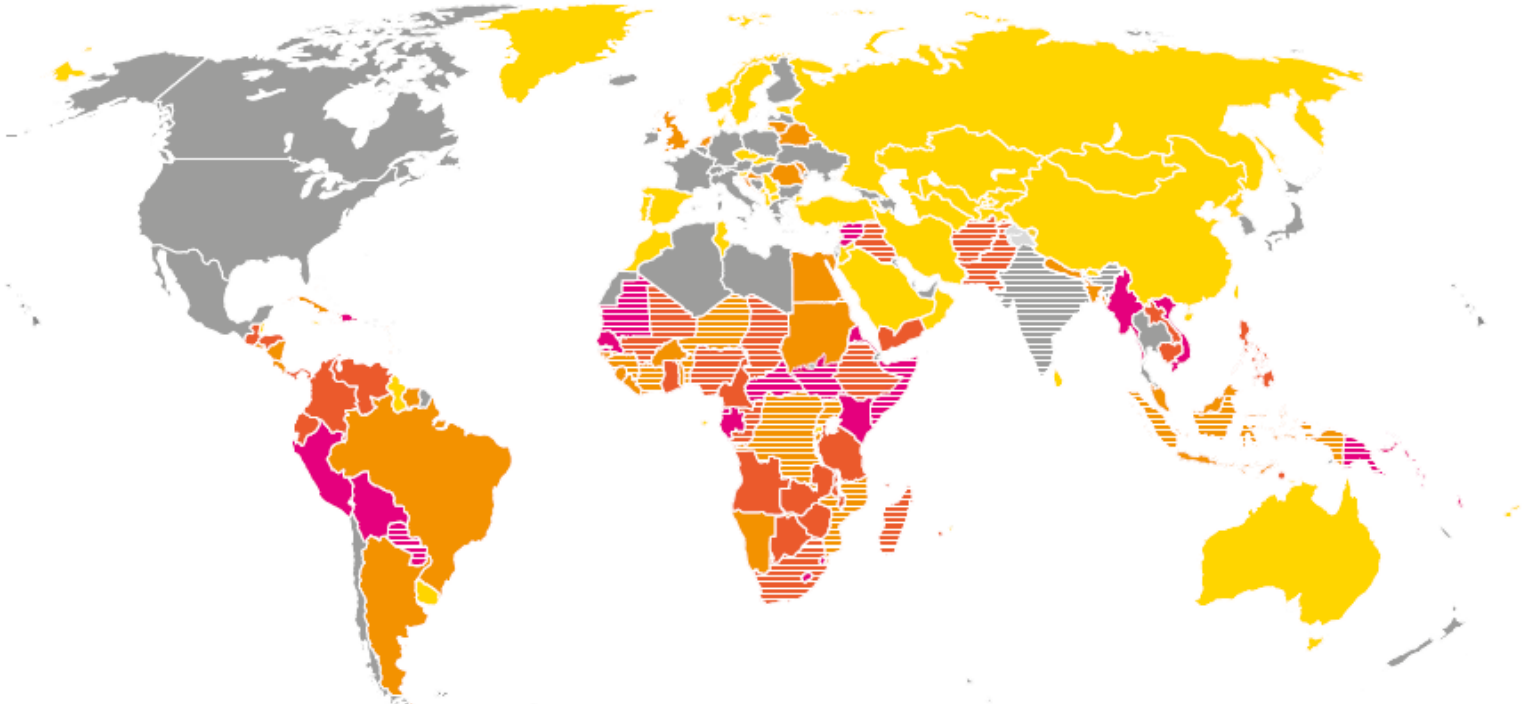
Note: Estimates are based on a subset of 58 countries with available data by residence for the periods 1999-2007 and 2010-2015 covering over 50 per cent of the global population under age 5.

Source: UNICEF global databases 2015 based on MICS, DHS and other nationally representative sources

unicef

极少国家实现对于消除麻疹尤其重要的省级目标

2013年根据国家免疫接种程序适龄儿童中含有麻疹的疫苗首针接种率达到95%区级（district）比例



- <50% (91个国家，47%的比例)
- 50-79%（38个国家，20%）
- 80-99% （20个国家，10%）
- 所有地区（15个国家，8%）

WHO和UNUICEF的预估比例<90%，且与国家政府的覆盖率有所不同，或者国家的数据无法提供（43个国家）

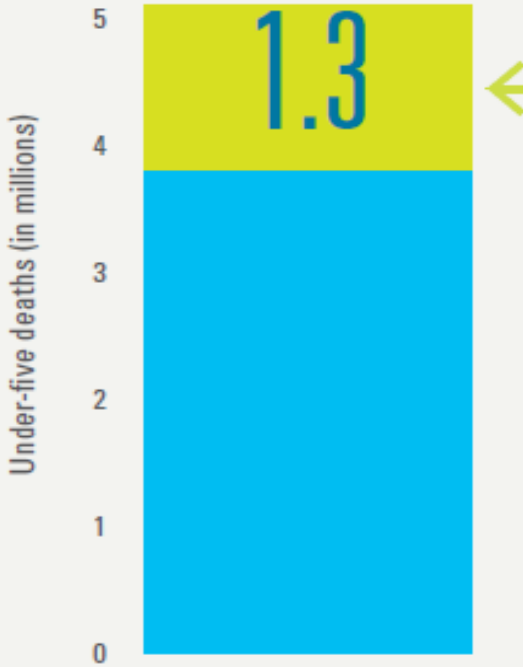
30个国家没有地区（district）级别覆盖率的数据

Source: WHO and UNICEF estimates of national immunization coverage, 2013 revision (completed July 2014) and nationally reported district-level administrative coverage for 2013 as reported in submitted Joint Reporting Forms on Immunization to WHO and/or UNICEF during 2014.

unicef

若相关干预措施的国家覆盖率可提高至最富裕人群中的覆盖率，则63个高死亡率国家中可以避免25%的五岁以下儿童死亡

2015年63个高死亡率国家的死亡数，及可避免的五岁以下死亡数



若相关干预措施的国家覆盖率可提高至最富裕人群中的覆盖率，则可避免130万五岁以下儿童死亡数

15年63个高死亡率国家的死亡数（510万）

Source: Lives Saved Tool (LiST) analysis by Johns Hopkins University, 2015

unicef

THE JOURNAL OF PEDIATRICS • www.jpeds.com

ORIGINAL ARTICLES

中国农村西部婴儿死亡死因：利用口头尸检的社区研究

Cause of Death among Infants in Rural Western China: A Community-Based Study Using Verbal Autopsy

Yi Ma, MD[1,*], Sufang Guo, MD[2,*], Huishan Wang, MD[1], Tao Xu, PhD[1], Xiaona Huang, PhD[1], Chenyue Zhao, MSc[2], Yan Wang, PhD[1], Robert W. Scherpbier, MD[2], and David B. Hipgrave, PhD[2,3]

Objectives To determine the causes of death among infants in high-mortality areas of western China with the use of globally recognized methods.

Study design A survey of all infant deaths identified over 1 year in 4 counties in Yunnan and Xinjiang in which combined verbal autopsy was combined with a physician's diagnosis of the cause to calculate the local infant mortality rate.

Results Among 470 completed investigations, a cause of death was assigned to 423 cases (90%). Overall, pneumonia (34.5%), preterm birth complications (16.5%), diarrhea (10.4%), birth asphyxia (10.3%), and congenital abnormalities (8.5%) were the main causes, with 56.6% of deaths occurring in the neonatal period. Deaths were attributable predominantly to prematurity or birth asphyxia in the early neonatal period, whereas infection accounted for more than 60% and 80% of deaths in the late and postneonatal periods, respectively. Calculated infant mortality was 21.9 in 1000 live births.

Conclusions The pattern of infant mortality observed in the surveyed counties differs markedly from that reported previously at the national level, with a high proportion the result of causes that may be preventable with globally recommended interventions. Financial and political support is needed to promote improved cause of death surveillance and newborn and infant health care in China's western region. *(J Pediatr 2014;165:577-84)*.

unicef

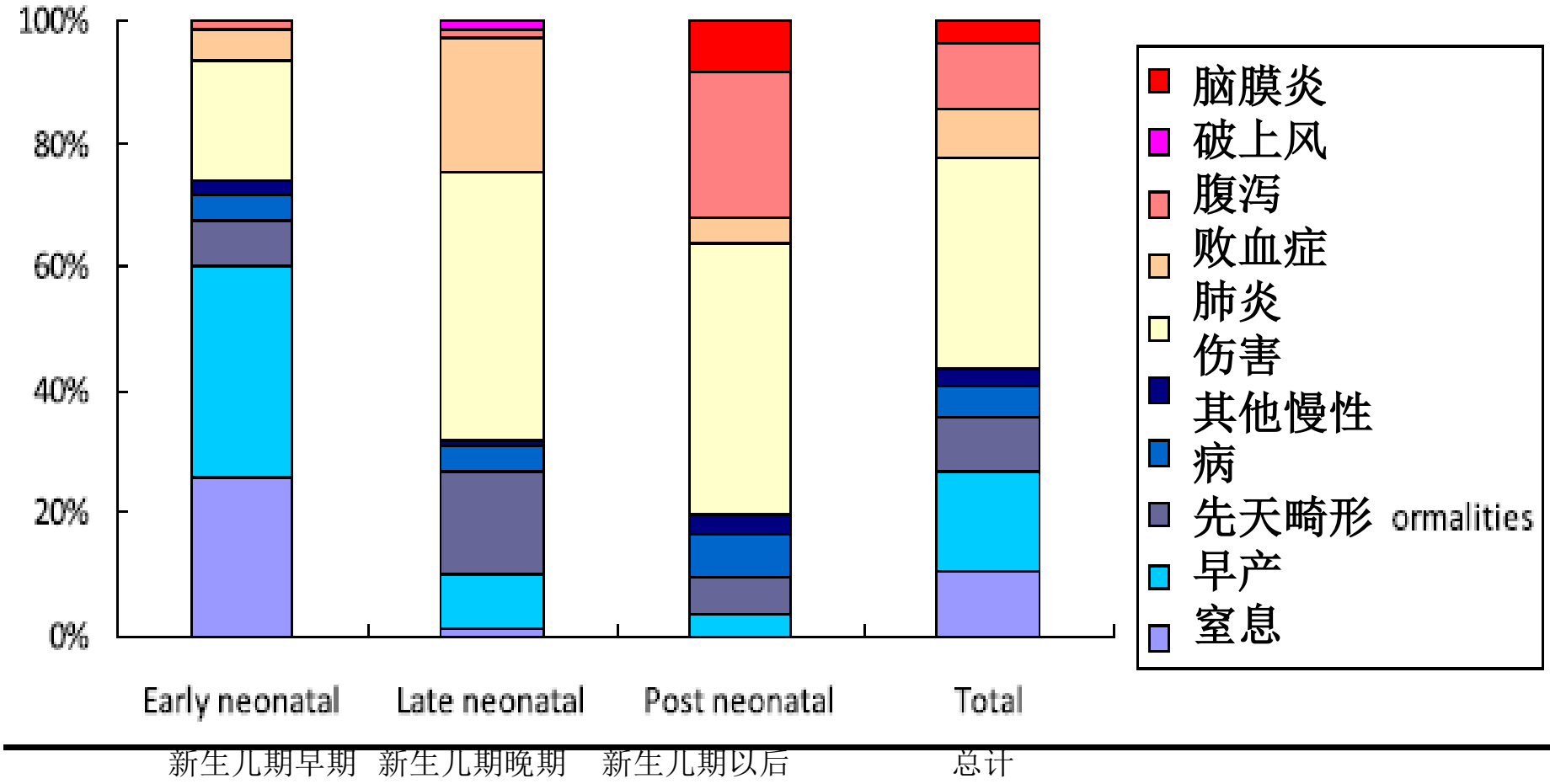


表2：新生儿早期、晚期和新生儿期以后和婴儿期的死因构成

J Pediatr 2014;165:577-84

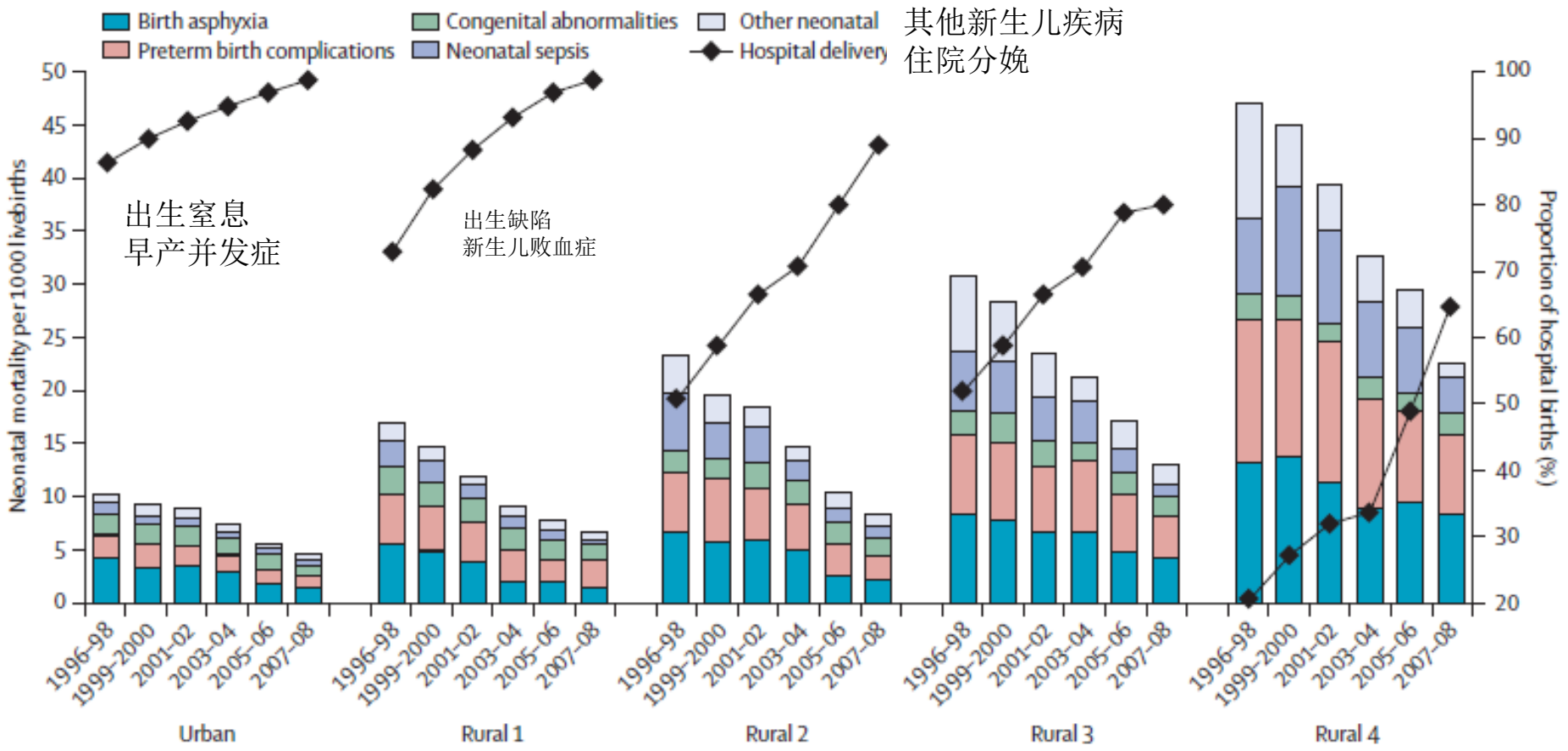


Figure 1: Trends in neonatal mortality by cause and socioeconomic region in China by year from 1996 to 2008

China's facility-based birth strategy and neonatal mortality: a population-based epidemiological study

中国住院分娩策略和新生儿死亡：基于人口的流行病学研究

Xing Lin Feng, Sufang Guo, David Hipgrave, Jun Zhu, Lingli Zhang, Li Song, Qing Yang, Yan Guo, Carine Ronsmans**

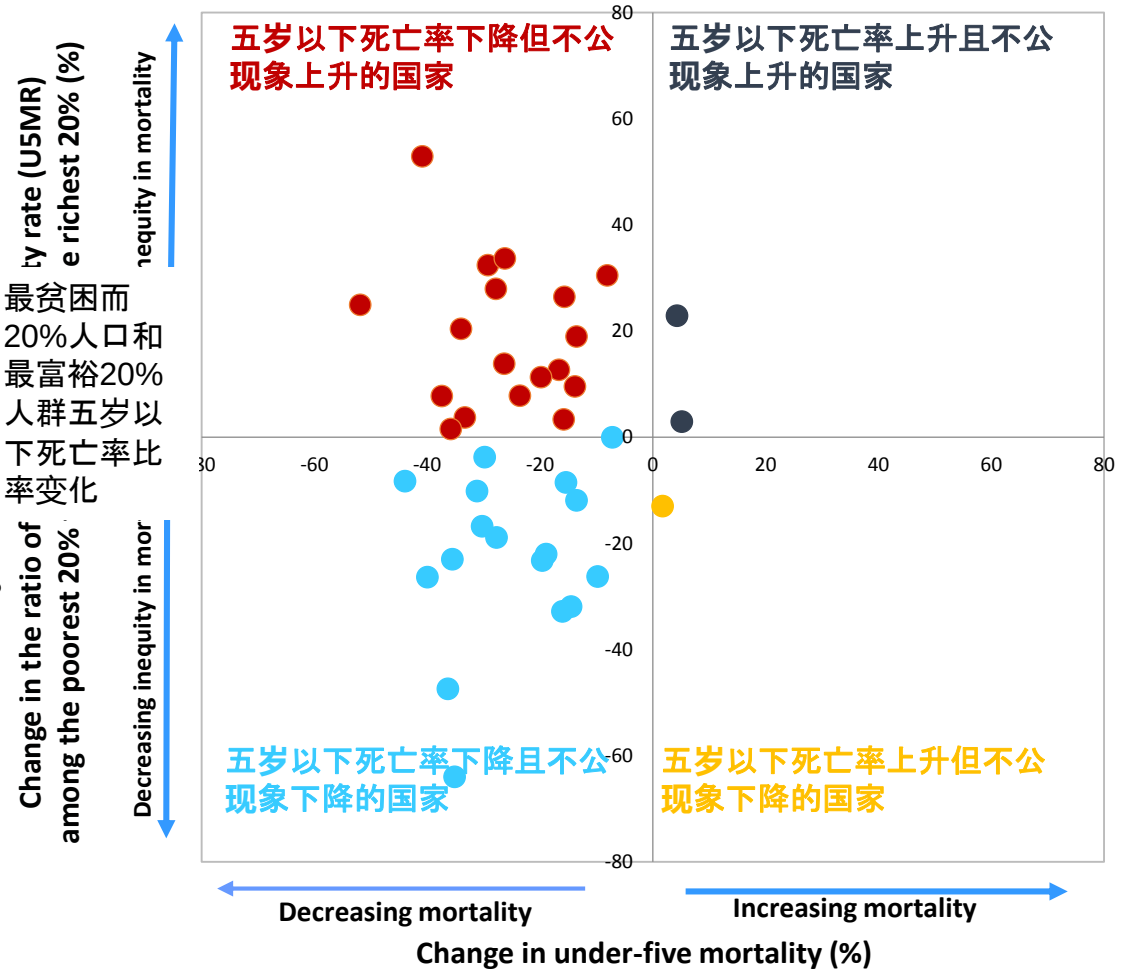
Lancet 2011: DOI:10.1016/S0140-6736(11)61096-9

unicef

36个国家中有一半均面临着不均衡的儿童生存工作进展

在有数据来源的36和国家当中，约有一半在减少五岁以下儿童死亡率工作中获得进展，并且国内富裕和贫困人群中的差距在缩小，而另外一半国家中相关的人群的差距却在拉大。

这表明：卫生和营养服务的提供和筹资，以及这些服务的需求和利用在某些国家偏向于富裕人群。



UNICEF analysis based on DHS, MICS and other nationally representative sources. 2015

MDG5：改善孕产妇保健

全球的孕产妇死亡率在1990至2013年间下降了45%，然而每日全球仍有800名妇女的死因可归结于怀孕和分娩。

MDG5即减少四分之三的孕产妇死亡率可能没有实现。

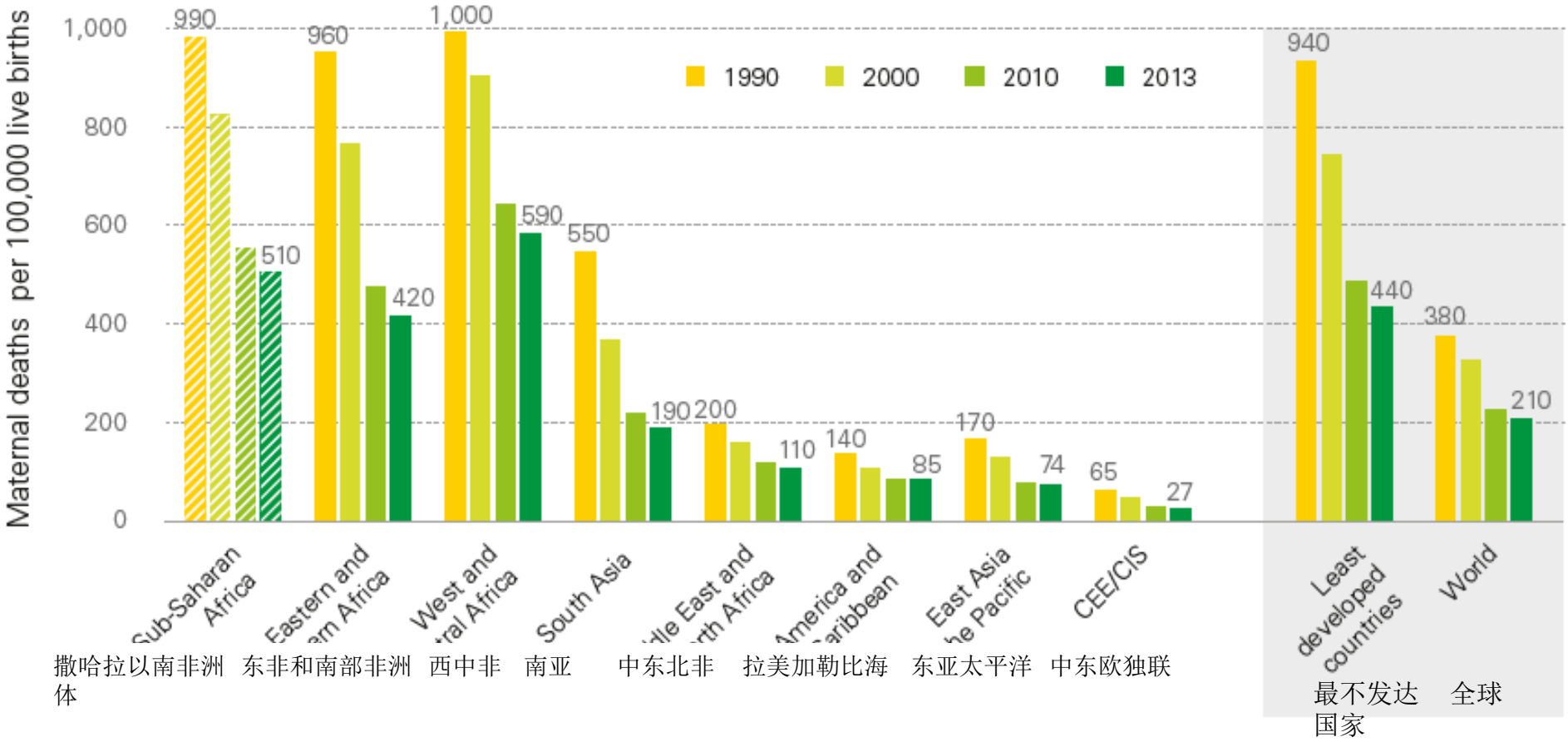
不同收入水平国家孕产妇死亡率的差距大幅下降，低收入和高收入国家间的差距自1990年以来缩小了一半。

而在包括产前保健和培训熟练的助产人员接生等消除可预防孕产妇死亡的重要干预措施方面的进展较小。

尤其是最贫困五分之一家庭和农村地区的孕产妇没能从熟练培训的接生人员服务中受益。

1990至2013年间，孕产妇死亡率下降了45%

各地区1990 至2013间孕产妇死亡率

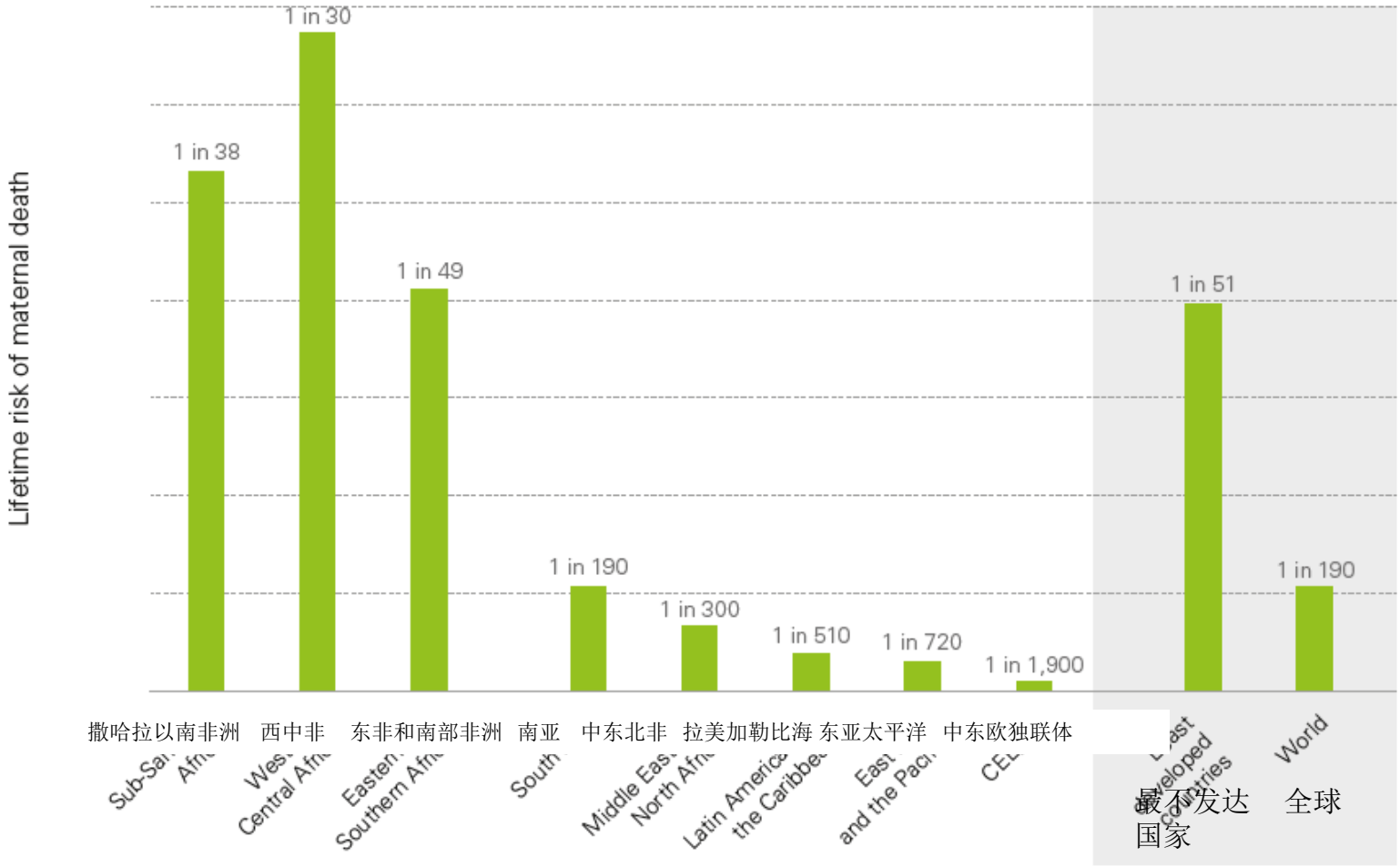


Source: WHO, UNICEF, UNFPA and World Bank, *Trends in Maternal Mortality*: 1990 to 2013, WHO, Geneva, 2014.

unicef

西中非地区孕产妇一生中的死亡风险为1/30，而全球该数字的比例是1/190

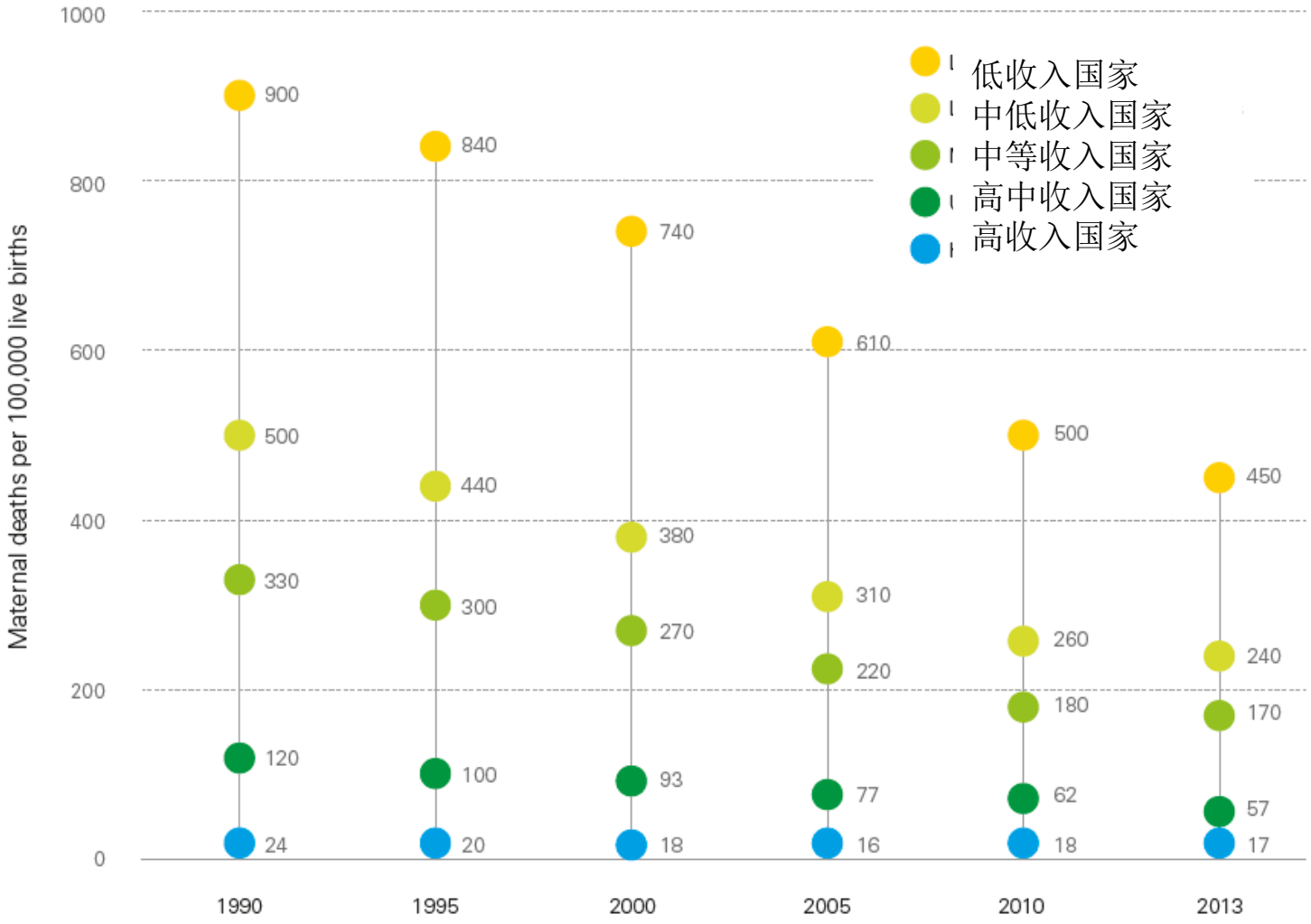
Lifetime risk of maternal death, 2013



Source: WHO, UNICEF, UNFPA and World Bank, *Trends in Maternal Mortality*: 1990 to 2013, WHO, Geneva, 2014.

低收入和高收入国家间孕产妇死亡率的差距大幅缩小

1990 至2013年间各收入水平下的孕产妇死亡率

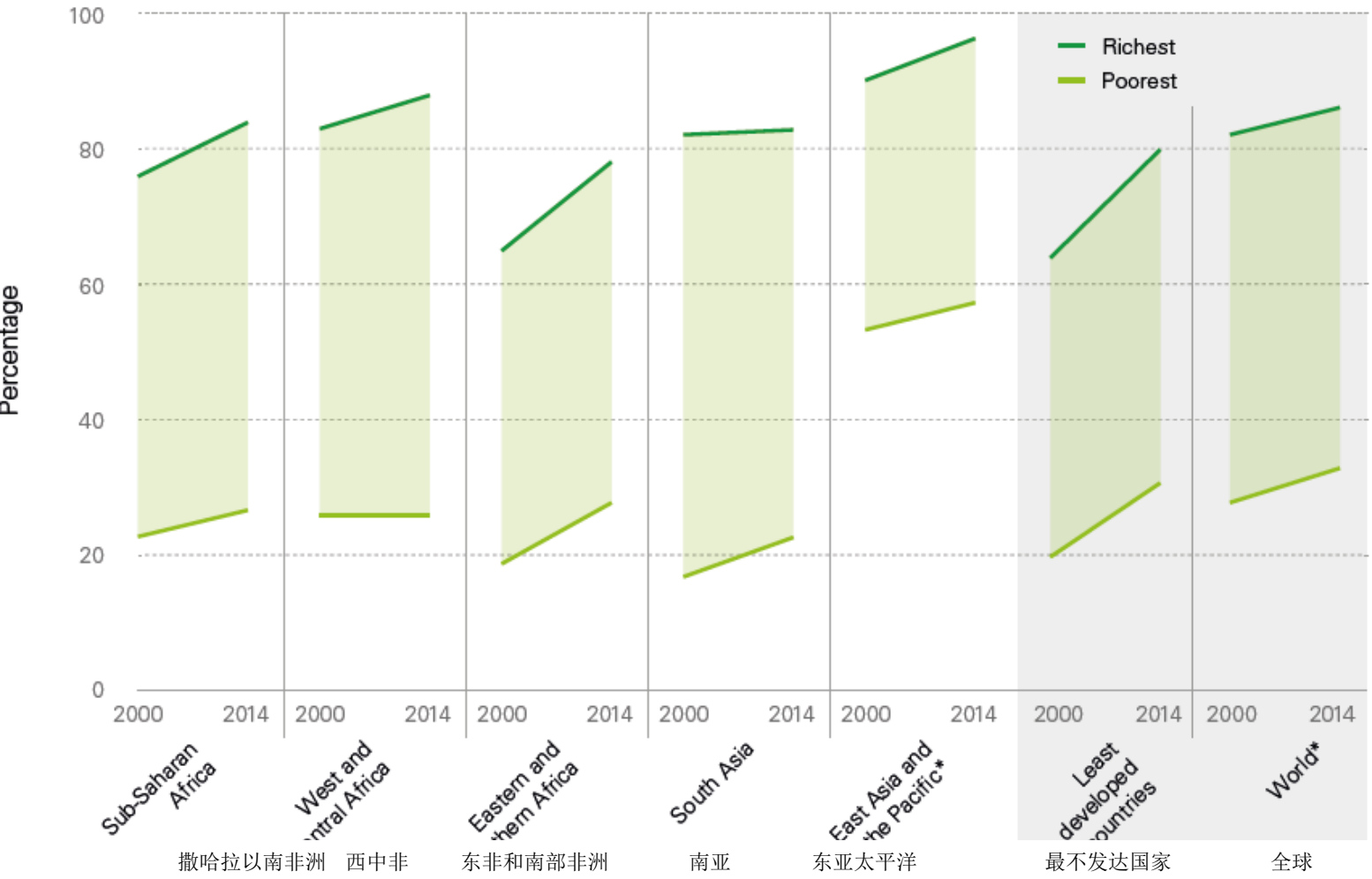


Source: UNICEF analysis based on WHO, UNICEF, UNFPA and World Bank, *Trends in Maternal Mortality*: 1990 to 2013, WHO, Geneva, 2014.

unicef

与最贫困家庭孕妇能相比，最富裕家庭孕妇获得培训熟练助产人员接生的几率要高出两倍

1990 至2014年间各地区和各富裕程度家庭或者培训熟练助产人员接生的比例



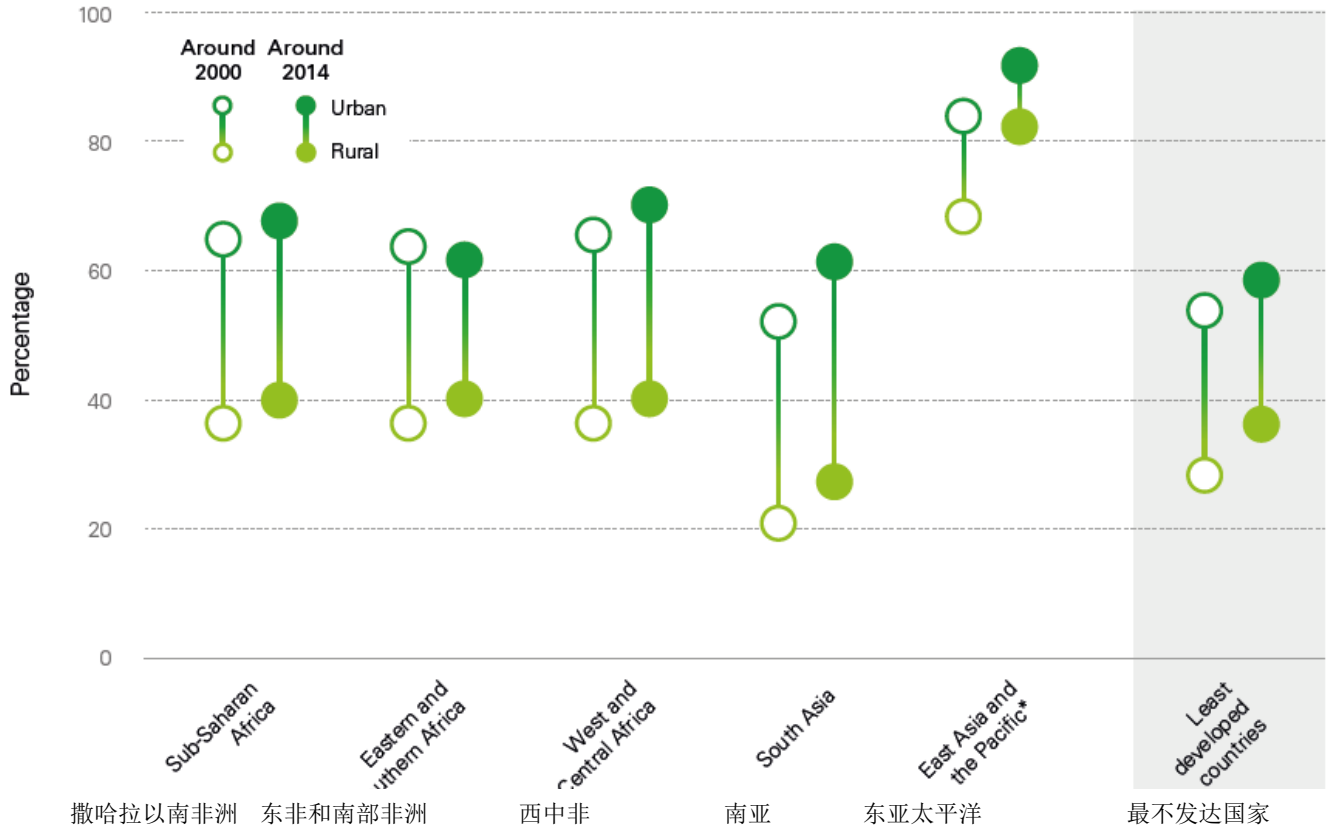
Note: *Excluding China.

Source: UNICEF global databases, 2015, based on MICS, DHS and other nationally representative sources.

unicef

Little progress has been made in closing the gap in antenatal care between urban and rural women

2000至2014年个地区和居住地孕妇获得四次产检的比例

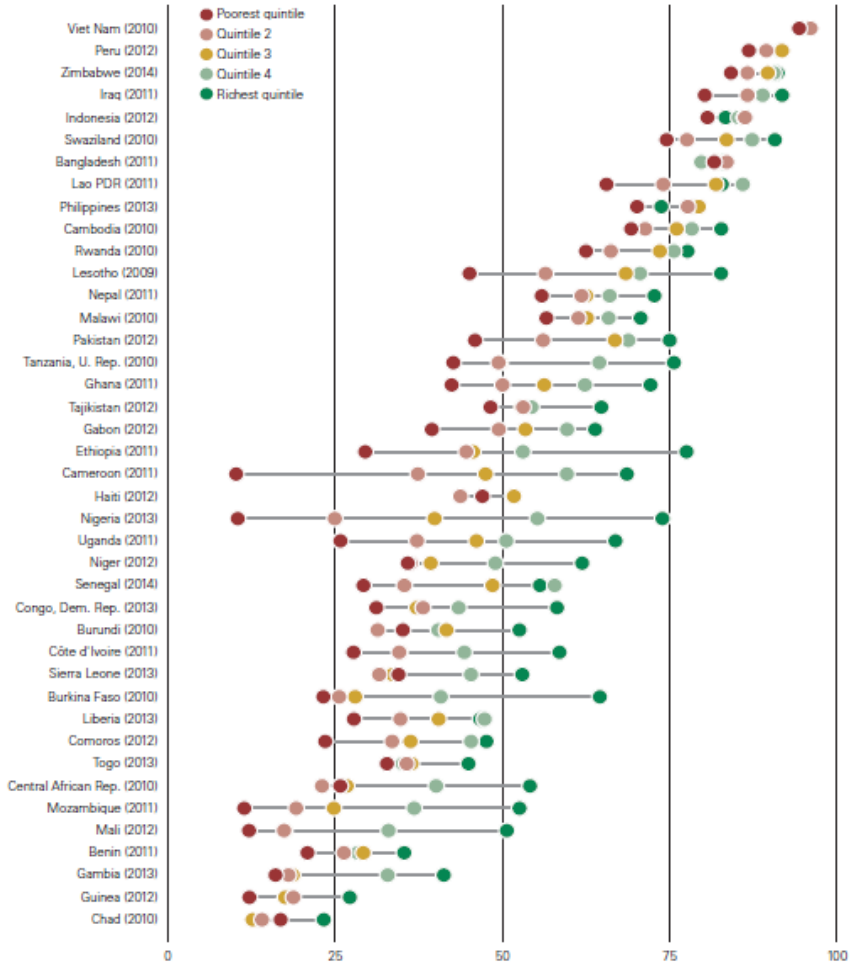


Note: *Excluding China.

Source: UNICEF global databases, 2015, based on MICS, DHS and other nationally representative sources.

各个人群间对计划生育服务的利用差距较大，与最贫困五分之一人群相比，最富裕五分之一人群的需求满足率更高

2009 年或以后根据家庭富裕情况41个可提供数据倒计时国家家庭生育需求满足情况



Source: Re-analysis of Demographic and Health Survey and Multiple Indicator Cluster Survey data sets at the International Center for Equity in Health at the Federal University of Pelotas.

unicef

DOI: 10.1111/j.1471-0528.2010.02707.x
www.bjog.org

1996至2006年中国孕产妇死亡率的社会经济状况差别

Socio-economic disparities in maternal mortality in China between 1996 and 2006

XL Feng,[a] J Zhu,[b] L Zhang,[c] L Song,[a] D Hipgrave,[d] S Guo,[d] C Ronsmans,[e] Y Guo,[a] Q Yang[c]

[a] Department of Health Policy and Administration, School of Public Health, Peking University, Beijing [b] National Office for Maternal and Child Health Surveillance of China, West China Second Hospital of Sichuan University, Chengdu [c] Department of Maternal & Child Health and Community Health, Ministry of Health [d] United Nations Children's Fund, Office for China, Beijing, China [e] Infectious Disease Epidemiology Unit, London School of Hygiene and Tropical Medicine, London, UK

Correspondence: Dr Q Yang, Department of Maternal & Child Health and Community Health, Ministry of Health, 100041, Beijing, China. Email yangqing@moh.gov.cn

Prof. Y Guo, Department of Health Policy and Administration, School of Public Health, Peking University, Xueyuan Road 38#, Haidian District, 100191, Beijing, China. Email guoyan@bjmu.edu.cn

Accepted 22 July 2010. Published Online 24 September 2010.

Objective China's economic reforms have raised concerns over rising inequalities in maternal mortality, but it is not known whether the gap across socio-economic regions has increased over time.

Design A population-based, longitudinal, ecological correlation study.

Setting China.

Sample Records from the National Maternal and Child Mortality Surveillance System between 1996 and 2006.

Methods We report levels, causes and timing of maternal deaths, and examine crude and adjusted time trends in the overall and cause-specific maternal mortality ratio in five socio-economic regions (using Poisson regression). We examine whether socio-economic disparities have widened over time using concentration curves.

Main outcome measures All-causes and cause-specific maternal mortality ratios.

Results Maternal mortality (MMR) declined by 6% per year (yearly rate ratio, RR, 0.94; 95% CI 0.93–0.96). The decline was most pronounced in the wealthiest rural type-I counties (RR 0.89; 95% CI 0.85–0.93), and in the poorest rural type-IV counties (RR 0.90; 95% CI 0.82–1.00). There were declines in almost all causes of maternal death. Postpartum haemorrhage (PPH) was by far the leading cause of maternal death (32%, 997/3164). The decline in MMR was largely explained by the increased uptake of institutional births. Concentration curves suggest that wealth-related regional inequalities did not increase over time.

Conclusions China's extraordinary economic growth has not adversely affected disparities in MMR across socio-economic regions over time, but poor rural women remain at disproportionate risk. Other emerging economies can learn from China's focus on the supply and quality of maternity services along with more general health systems strengthening.

Keywords China, MDG 5, MMR, socio-economic disparities, time trends.

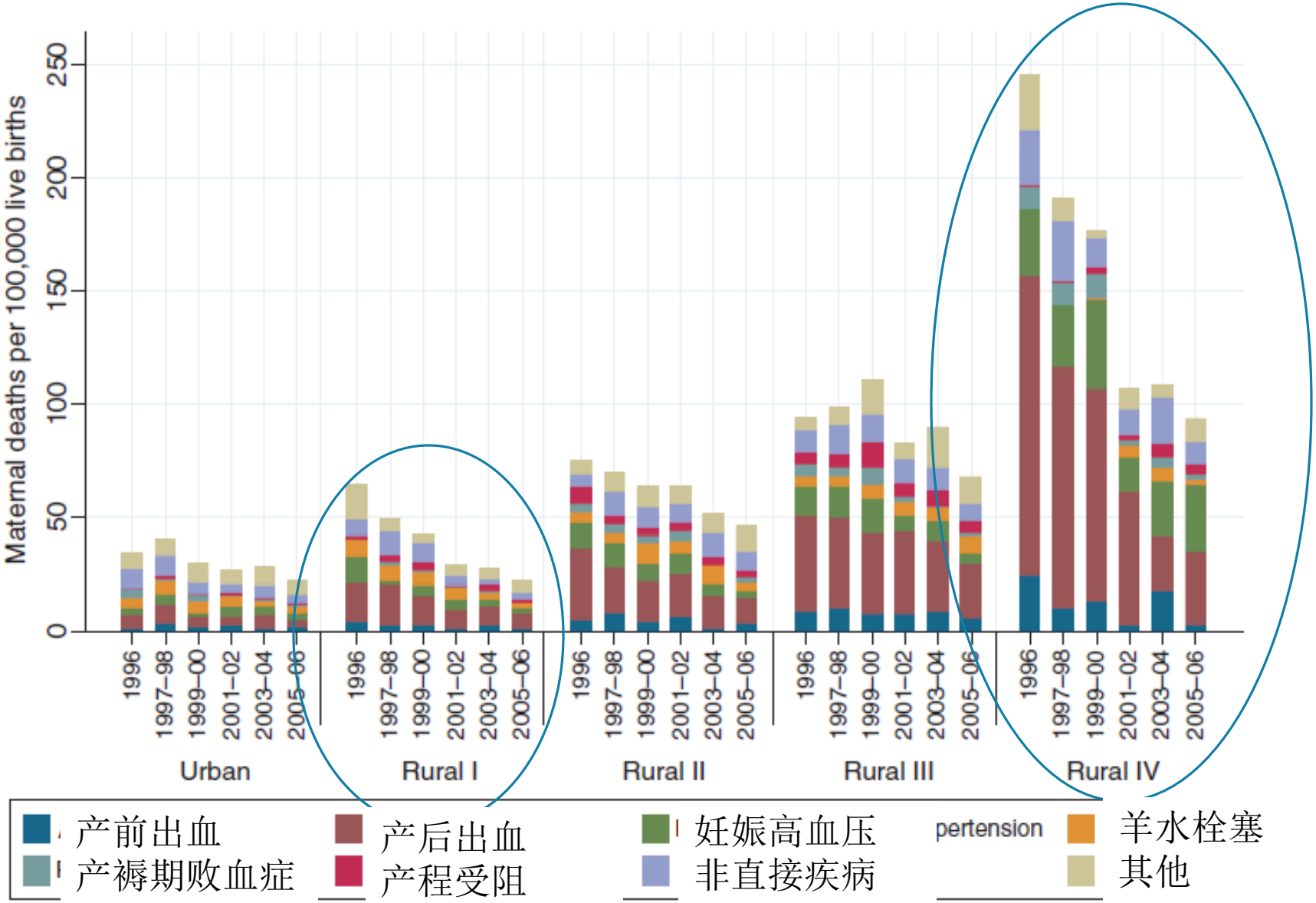


图2：不同社会经济状况地区、分年度和死因的孕产妇死亡率（中国 1996－2006).

www.bjog.org DOI: 10.1111/j.1471-0528.2010.02707.x

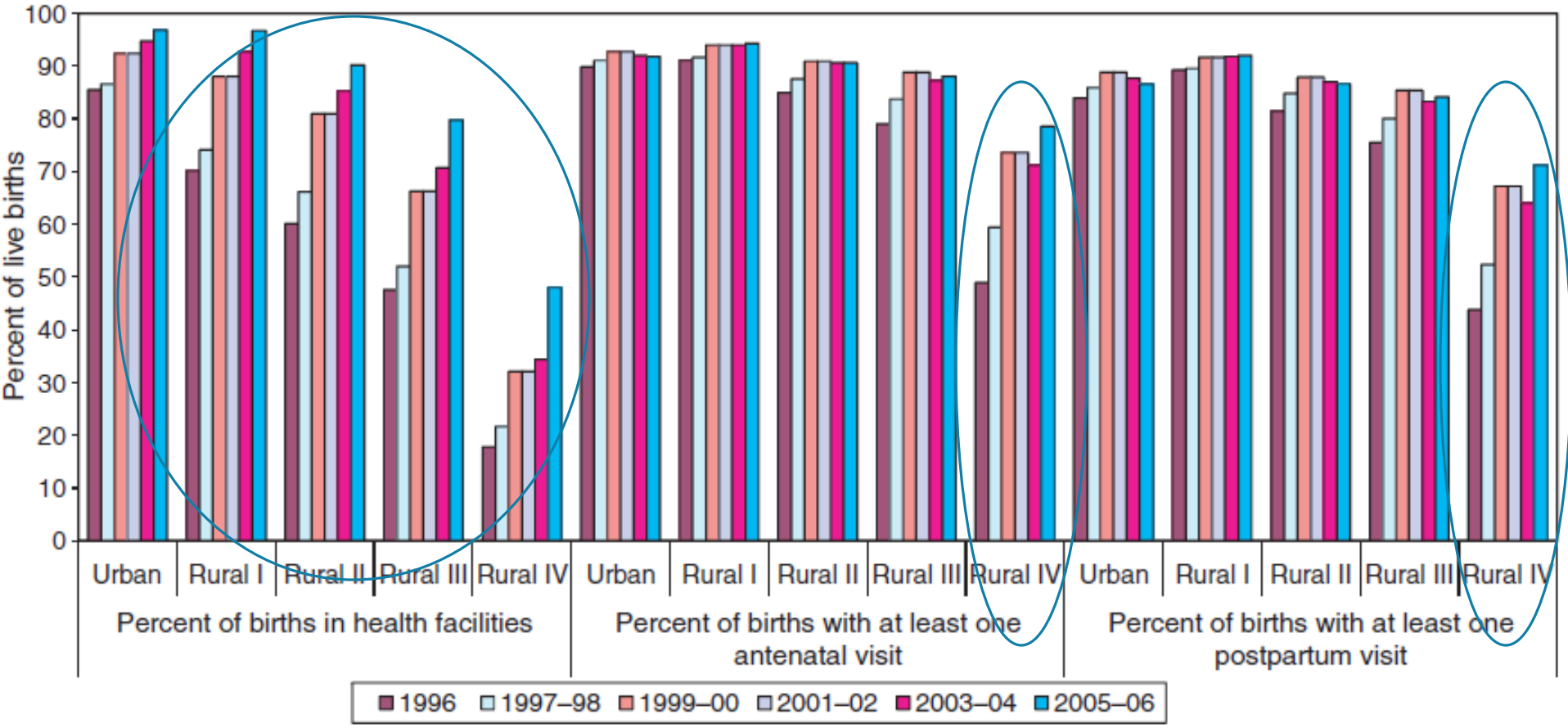


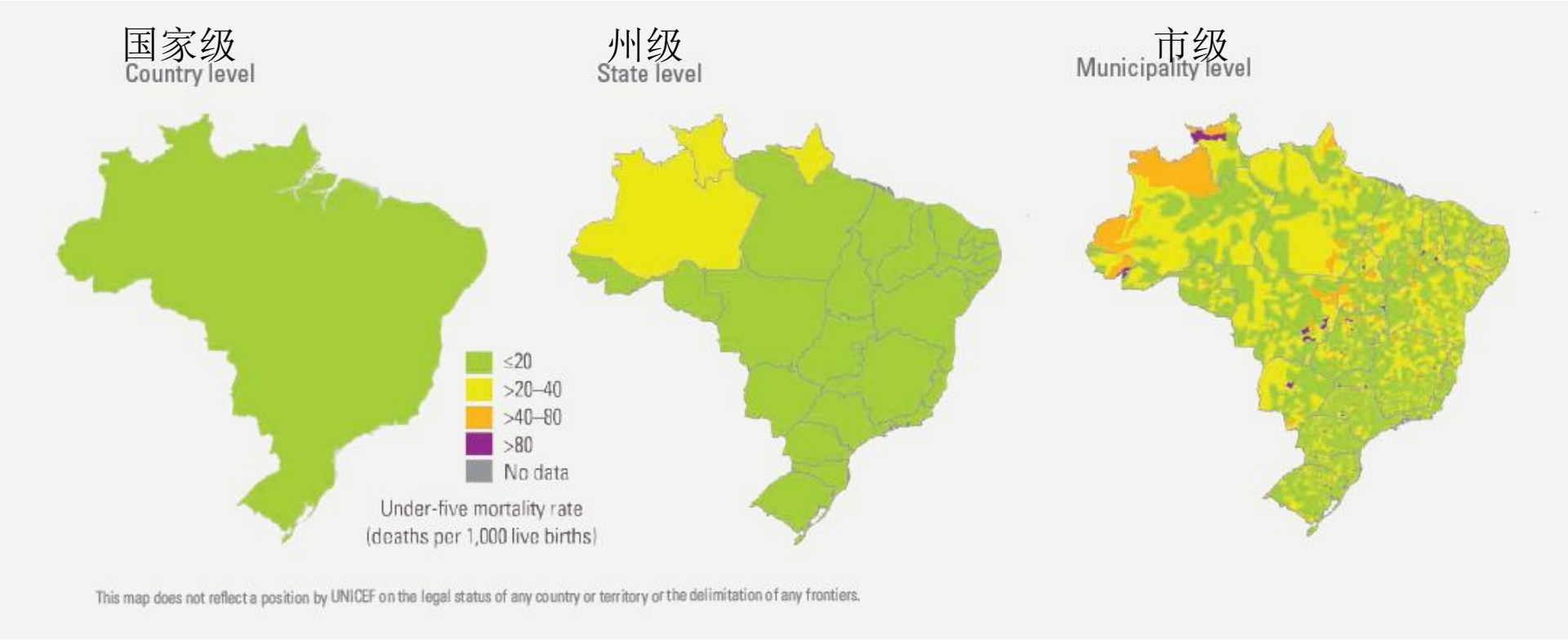
图3：每年机构分娩、一次产检分娩、一次产后访视分娩的比例，按不同地区社会经济情况分组（中国 1996至2006）.

www.bjog.org DOI: 10.1111/j.1471-0528.2010.02707.x

可持续发展目标时期的公平性工作

- 若要实现SDG3关于儿童和孕产妇死亡率的目标，各国须进一步促进公平性工作。
- 中低收入国家尤其是这些国家城市以外的卫生服务仍然薄弱，且由于人力和物资问题和基础设施不足，诊疗质量低下。
- 利贫服务在多国仍是一个较为长远的目标，而卫生工作的治理和社会问责仍然偏弱

可持续发展时期的公平性工作——数据
Under-five mortality rates in Brazil, 2013



Source: Ministry of Health — Department of Informatics — DATASUS

可持续发展目标时期的公平性工作——筹资

- 许多中低收入国家以及在包括中国在内的财权分权制国家的省级，卫生筹资力度偏弱
- 从政府投入中受惠的往往是住院和城市地区的患者，包括慢性病门诊在内的某些医疗服务自费比例甚高。
- 社会医疗保险在税收基础薄弱的国家较难扩面；中国拥有出色的医保覆盖率，但仍需提高保障范围和和水平。

可持续发展目标时期的公平性工作——社会影响因素

- 社会影响因素虽然有所改善，但在多国仍是公平性工作的阻碍，其中厕所和女性教育为两项突出因素。
- 政治和地区安全动荡威胁着全球孕产妇新生儿保健工作的进展；埃博拉疫情凸显了即使在MDG有进展的国家中，其卫生体系仍然较为脆弱的现实。

谢谢大家！

感谢儿基会相关同事提供的数据和分析（ Danzhen You, David Hipgrave, Agbessi Amouzou, Priscilla Idele, Colleen Murray, Katell Le Goulven, Lucia Hug, Liliana Carvajal and Emily Garin ）

unicef