



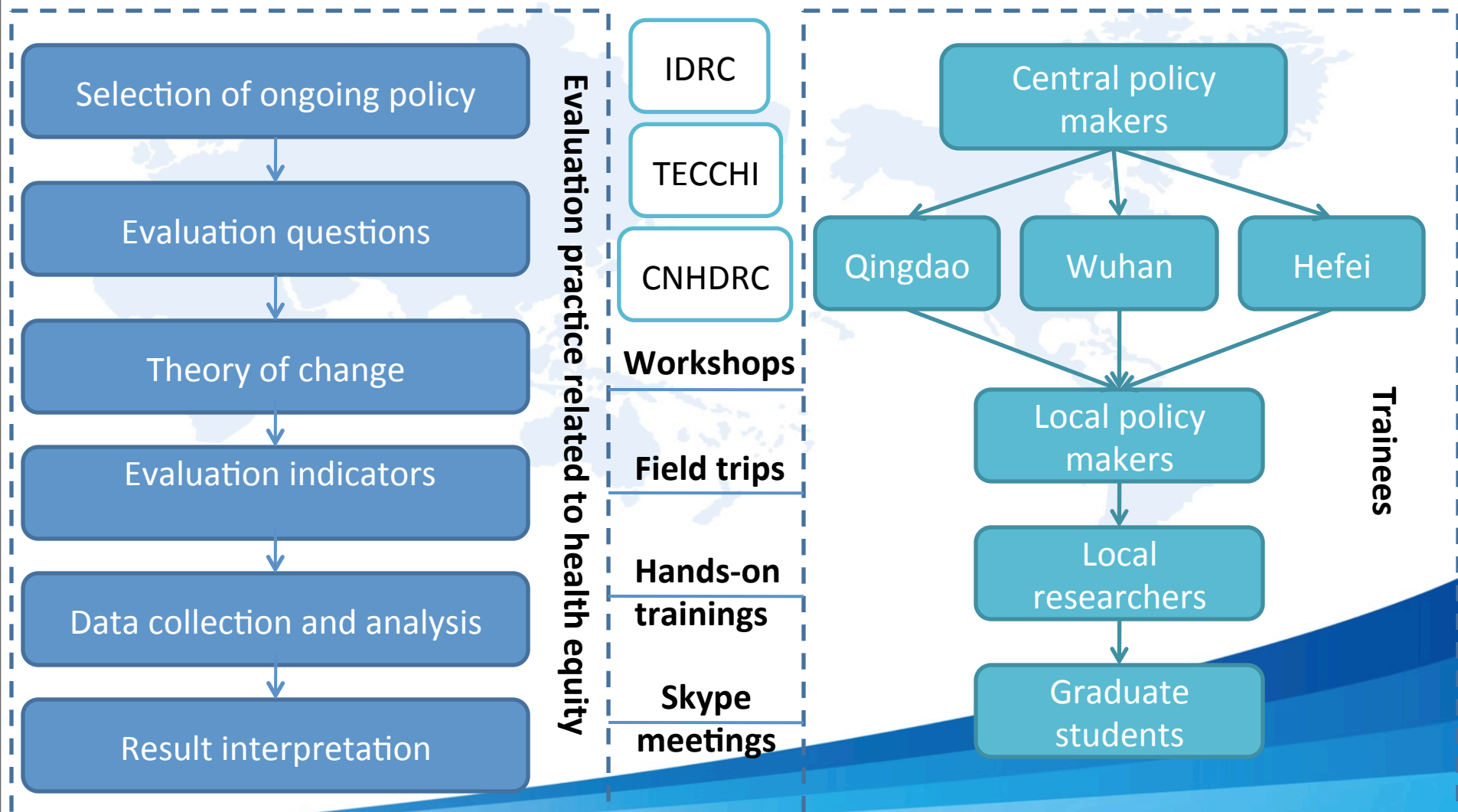
An Experiment on Building Evaluation Capacity to Address Maternal Health Inequities in China

Kun Zhao, Oct 19th, 2015

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The framework for the experiment project





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Selection of policy in Qingdao site

The equalization of the basic public health services

1
Establish health record for every resident

2
Health education

3
Vaccination

4
The prevention and cure for contagious disease

5
Children health care

6
Maternal health care

7
The aged health care

8
Chronic disease management

9
Severe mental disease management

The maternal population

Theory of change in maternal care intervention

Inputs

- Training workforce for public health
- Government provides funding for this service

Activities

- Establish healthcare records for pregnant women
- Conduct at least 5 visits as antenatal care
- Conduct at least 2 visits as postpartum care
- Pregnant has received relative services

Outputs

- Number of services/visits
- Annual report
- Number of pregnant that have been managed

Outcomes

- MMR
- New born mortality rate
- Hospitalized labor rate

Impact

- Women's health status has been improved
- Life expectancy increased
- The gap between urban and rural narrowed





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Proposal feedbacks and methodology training

Evaluation questions





Proposal (final version)

Vulnerable group:

poorest people and most lower-level education people in rural in Qingdao city.

Evaluation question:

Has there been changes in how disadvantaged groups access to maternal healthcare services as a results of this public program?

- Essential Drug
1. Background
 - Brief
 - Problem
 - Rationale
 2. Evaluation
 - Foster
 - ✓ V
 - ✓ R
 - ✓ V
 - ✓ V
 - Impro
 - ✓ A
 - ✓ V
 3. Methodology
 - Study
 - ✓ V
 - Data
 - ✓ V
 - ✓ tin
 - ✓ Wha
 - unemployment status, etc.)?..
 - Sampling..
 - ✓ How will disadvantaged/hard-to-reach/marginal populations be sampled?..
 - ✓ How will the individuals affected by the intervention be included in the evaluation? How will they be accessed? ..
 - Data analysis..
 - ✓ How will the differential impacts of the intervention on different sub-groups be analyzed?..
 4. Results and findings..
 - Dose the results show the inequities? ..
 - Are there any unexpected results?..
 5. Discussion..
 6. Implementation and dissemination..
 7. Limitation..
 8. Timeline..



Indicators and data source

Table 1. Indicators for the evaluation project

Maternal services	Number of maternal death
	Number of pregnant who has been documented
	Number of pregnant who has been systematically managed
	Antenatal care rate: at least one visit
	Postpartum care rate: at least one visit
	MMR

Table 2. Data source at city level in Qingdao

	Data source	Equity stratifier
Facility (data set)	Qingdao annual healthcare report(2009-2014)	Wealth \Region
Individual (Survey)	Household survey (2015)	Wealth\Education\Region

Measurement

Table 4. Measures used to quantify health inequity, by 4 equity stratifiers

Equity stratifier	Simple measures of inequity		Complex measures of inequity	
	Absolute	Relative	Absolute	Relative
Wealth	Difference	Ratio	Slope index of inequity	Concentration index
Education	Difference	Ratio	Slope index of inequity	Concentration index
Region	Difference	Ratio	Mean difference from overall mean	Theil index
Urban/rural	Difference	Ratio		



Preliminary results—Region-based inequity

Table 8. Latest status of region-based inequity in selected indicators in Qingdao, Annual healthcare report 2014

Indicator	Urban(%)	Rural(%)	Difference(Rural-Urban)(%)	Ratio(Rural/Urban)
MMR	0.01	0.00	-0.01	0.00
Health record establishment ratio	97.06	99.14	-2.08	0.98
Pregnant systematic management ratio	96.16	95.73	0.43	1.00
Antenatal care ratio(at least once)	99.19	99.40	-0.21	1.00
Postpartum care ratio(at least once)	97.07	98.35	-1.28	0.99



Preliminary results—Region-based inequity

Figure 6. Region-based inequity in pregnant accepted postpartum care in Qingdao, Qingdao annual report, 2009 and 2014

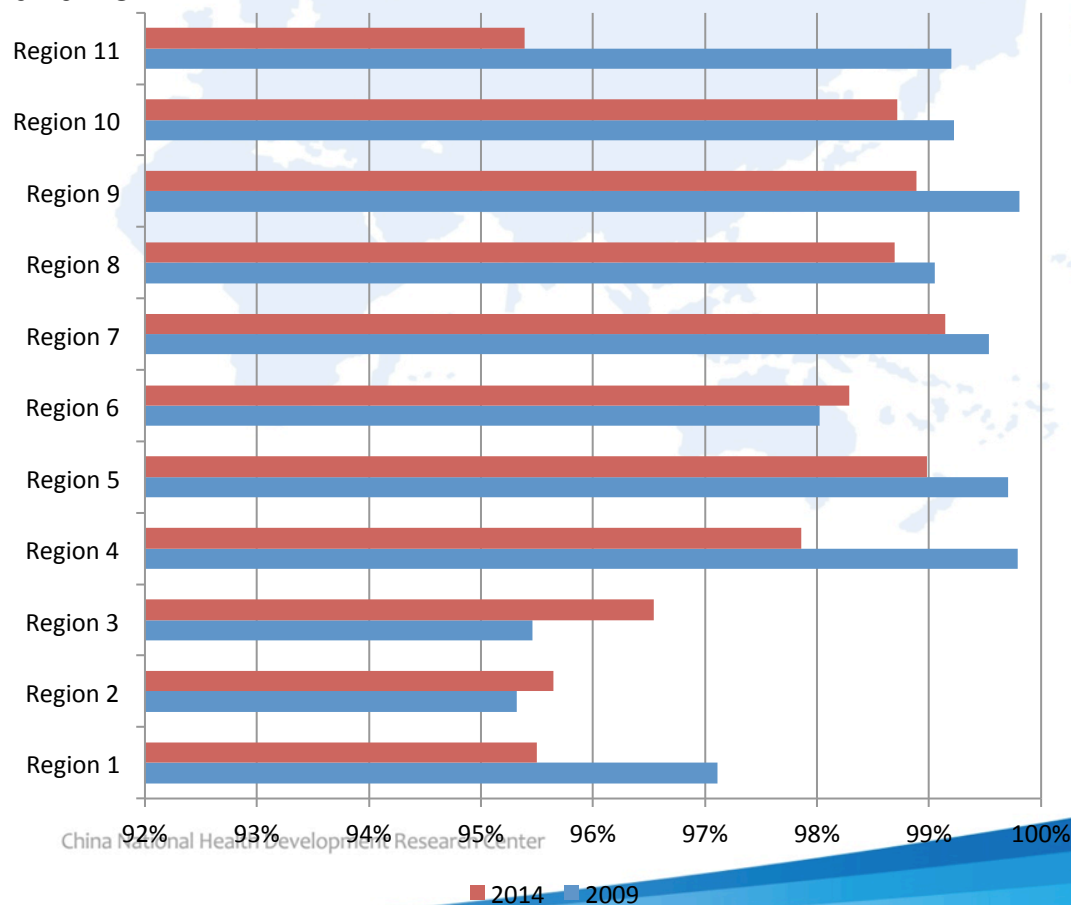


Table 9. Region-based inequity in pregnant accepted postpartum care in Qingdao, Qingdao annual report, 2009 to 2014

Year	Difference (high-low) (%)	Theil index of inequity (*1000)
2009	4.49	0.10
2010	4.91	0.12
2011	4.80	0.09
2012	4.86	0.10
2013	3.97	0.06
2014	3.75	0.10



Preliminary results—Wealth-based inequity

Table 5. Latest status of wealth-based inequity in selected indicators in Qingdao, Annual healthcare report 2014

Indicator	Quintile1 (%)	Quintile2 (%)	Quintile3 (%)	Quintile4 (%)	Quintile5 (%)	Difference(Quintile5-Quintile1)(%)	RatioQuintile5/Quintile1)
MMR	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Health record establishment ratio	97.44	97.86	98.28	99.21	98.88	1.44	1.01
Pregnant systematic management ratio	96.55	94.86	95.77	96.09	97.09	0.54	1.01
Antenatal care ratio(at least once)	99.08	99.16	99.39	99.56	99.01	-0.07	1.00
Postpartum care ratio(at least once)	97.77	96.00	98.08	98.87	98.72	0.95	1.01



Preliminary results—Wealth-based inequity

Table 6. Wealth-based inequity in pregnant accepted antenatal care in Qingdao, Qingdao annual report, 2009 to 2014

Year	Difference (Quintile5-quintile1) (%)	Slope index of inequity (%)
2009	1.46	1.80
2010	1.71	1.77
2011	1.67	1.72
2012	1.36	1.32
2013	1.02	1.58
2014	0.94	1.96



Preliminary results—Wealth-based inequity

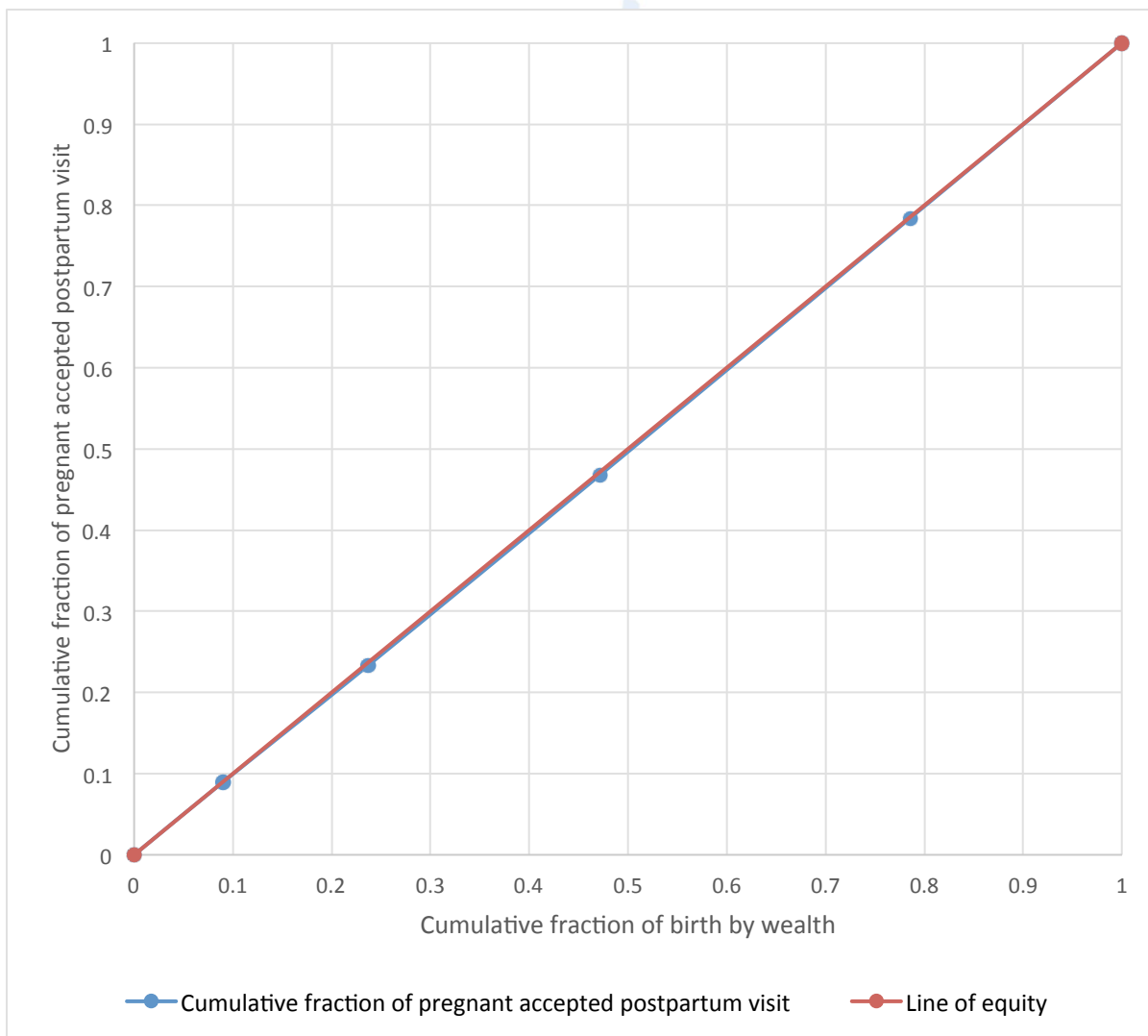


Figure 4. Relative wealth-based inequity in pregnant accepted postpartum visit in Qingdao, represented using concentration curves, Qingdao annual healthcare report, 2014



background –postpartum care

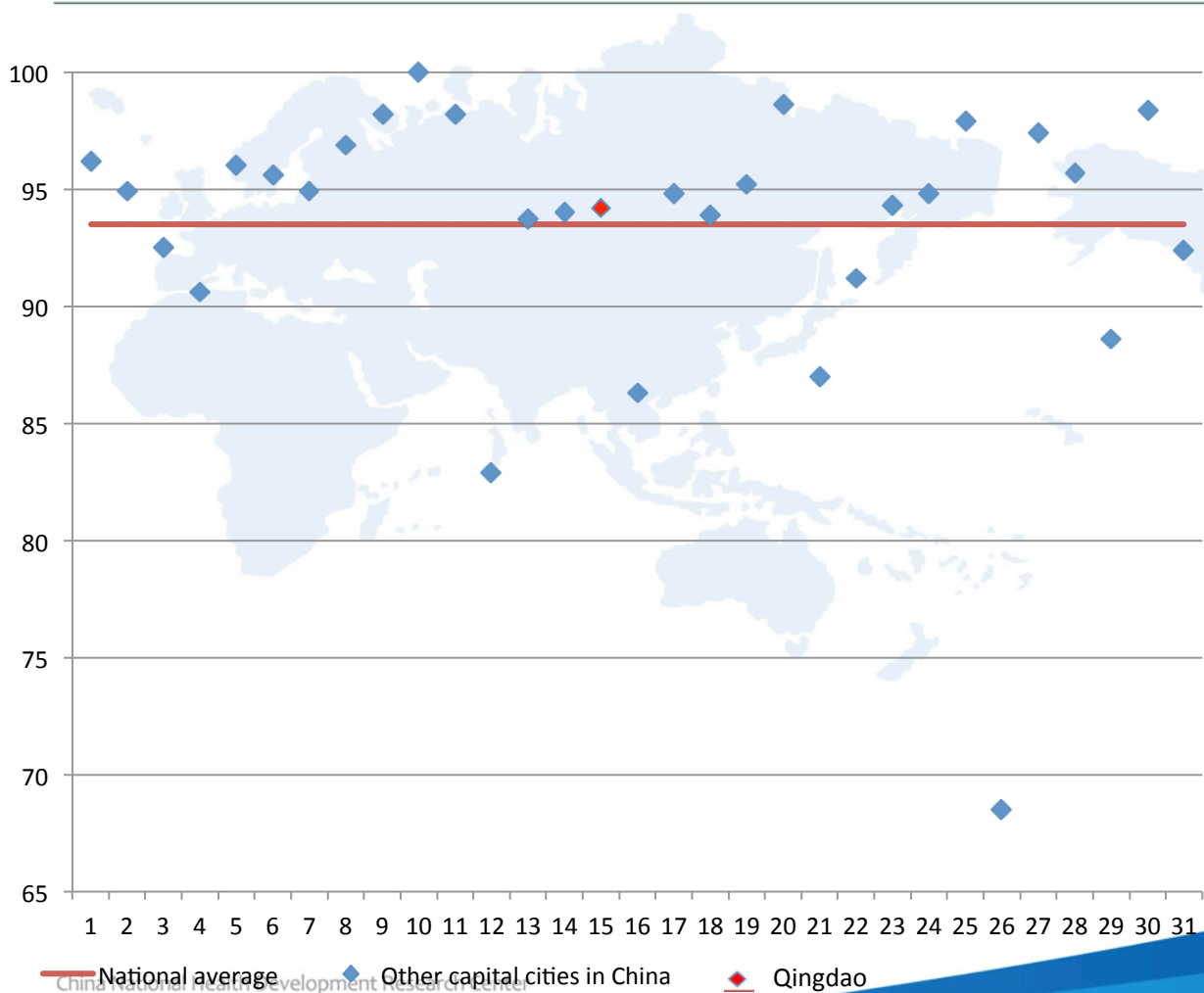


Figure 1. Benchmarking the latest status of Postpartum care ratio in Qingdao against other 30 capital cities in China, China Annual report, 2013



background —MMR

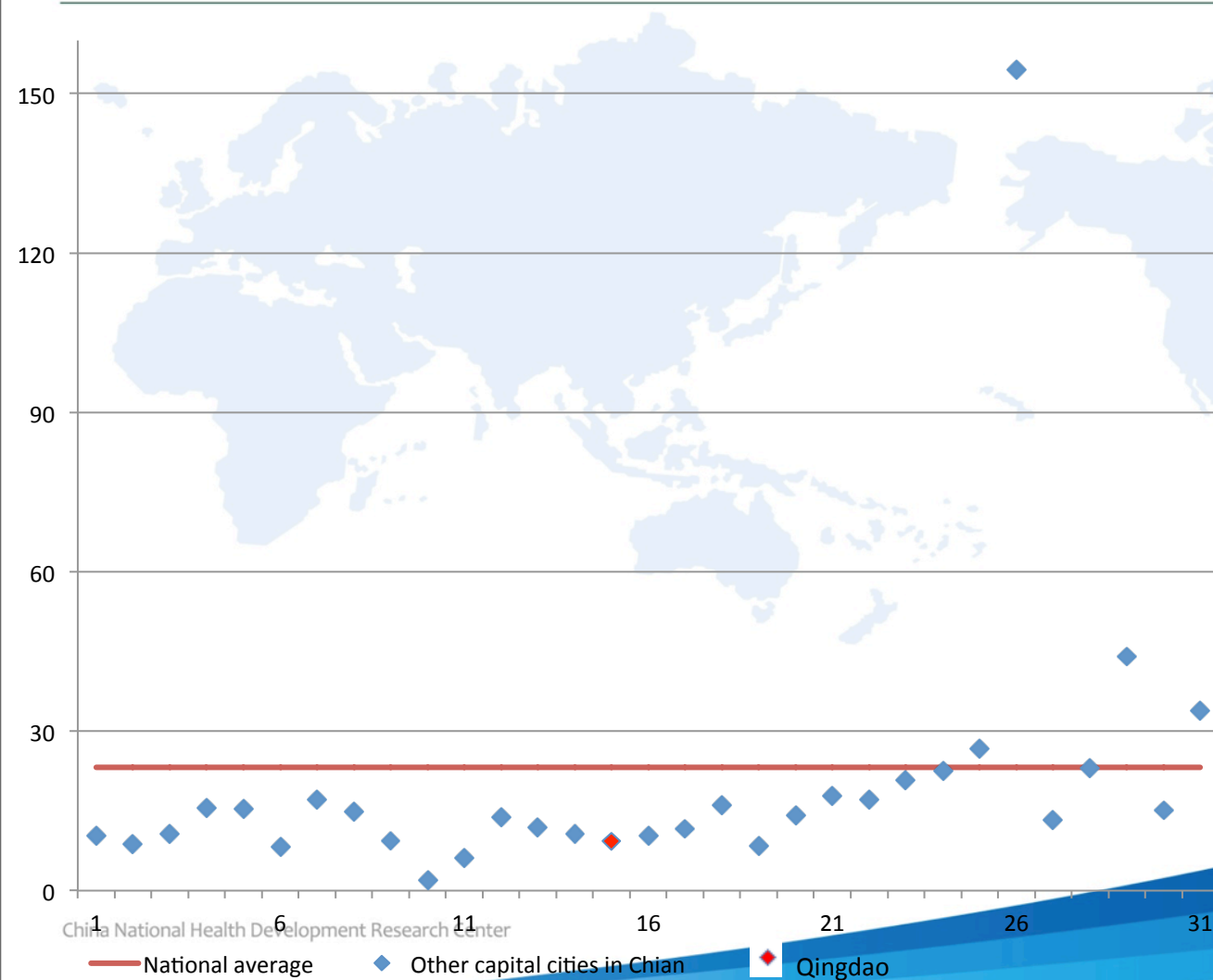


Figure 2. Benchmarking the latest status of MMR in Qingdao against other 30 capital cities in China, China Annual report, 2013

Next steps



Thank you!
谢谢(XIE XIE)!

