




Mainland China is facing a huge regional disparity in the number of academic publications of hospice and palliative care

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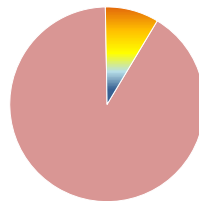
Supported by Irma and Milstein Program for Senior Health, Milstein Medical Asian American Partnership Foundation MMAAP Foundation.

Background: Population data of Mainland China

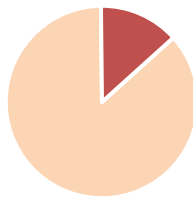


- **Population:** 1,411.78 million persons
(18% of the world population)

- **Structure:** Han people: 91.11%
55 Ethnic groups: 8.89%



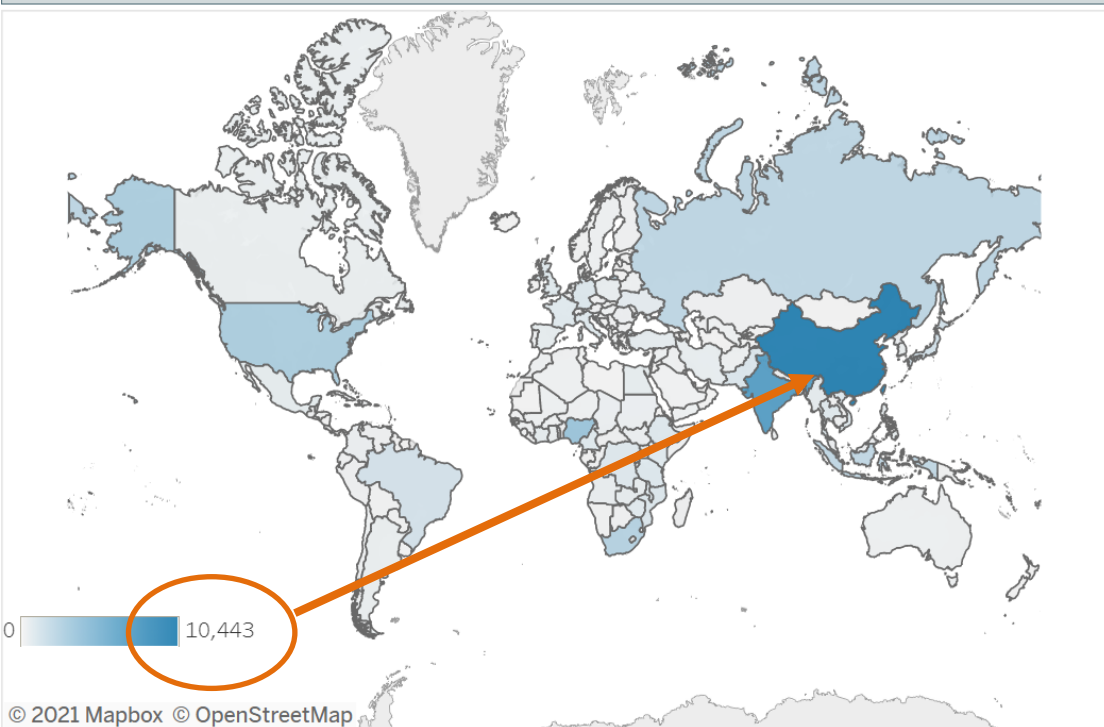
- **65 years +:** 13.50%



Background: largest population in need of palliative care



Map of Count of People with SHS , 2015



People with Serious Health-related Suffering:

10.443 million \approx 7.55‰

Serious health-related suffering database, 2015

Background: the quality of death has been low



The
Economist

Intelligence
Unit

The 2015 Quality of Death Index Ranking palliative care across the world

A report by The Economist Intelligence Unit



Rank of Mainland China:

2015: 71st among 80 countries or regions

The Economist Intelligence Unit.
The 2015 Quality of Death Index, ranking palliative care across the world

Background: Slow development of palliative care



“Palliative medicine is in its infancy in China and faces many challenges and barriers”

Li JX, et al. Current Oncology Reports. 2017

1988: The first hospice in Mainland China

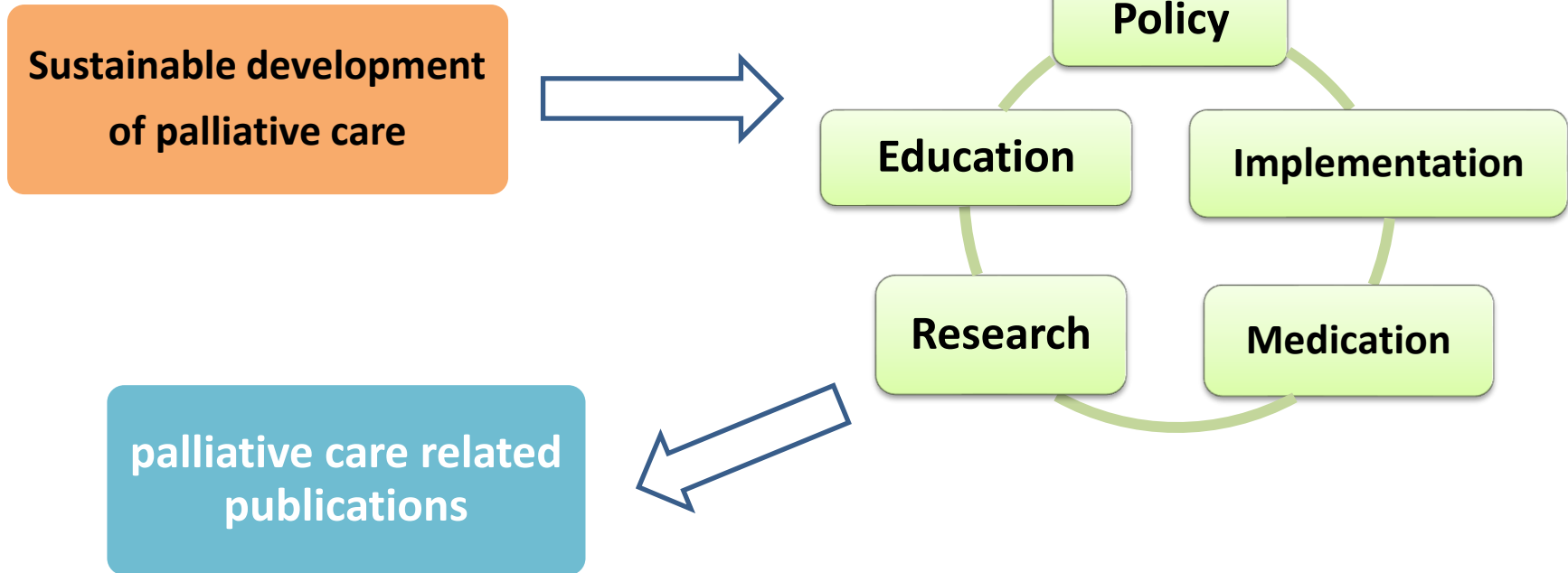
2012: Shanghai government promoted **community hospice**

2017: The government **set basic standards** of management and practice of hospice centers

2020: Hospice(安宁疗护) was mentioned for the first time in the Basic Healthcare and Health Promotion **Law**

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Background: the importance of research and publication



Objectives



1. Describe the baseline situation of palliative care related publications for 2010-2020
2. Investigate the regional disparity of palliative care related publications
3. Inform the future policy to facilitate palliative care related research and publication in order to sustain the development of palliative care in Mainland China

Methods: bibliometric study



Database: CNKI (biggest academic database in China)

Web of science, SCOPUS, PubMed, CINAHL, OVID



Methods: bibliometric study

Database: CNKI, Web of science, SCOPUS, PubMed, CINAHL, OVID

Inclusion: contained any of the following terms in the title, abstract or keywords

“palliative care,” “hospice,” “end-of-life care,” or “terminal care.”

“缓和医疗”，“舒缓医疗”，“舒缓疗护”，“姑息医学”，“姑息治疗”，“姑息关怀”，
“安宁疗护”，“临终关怀”



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Exclusion:

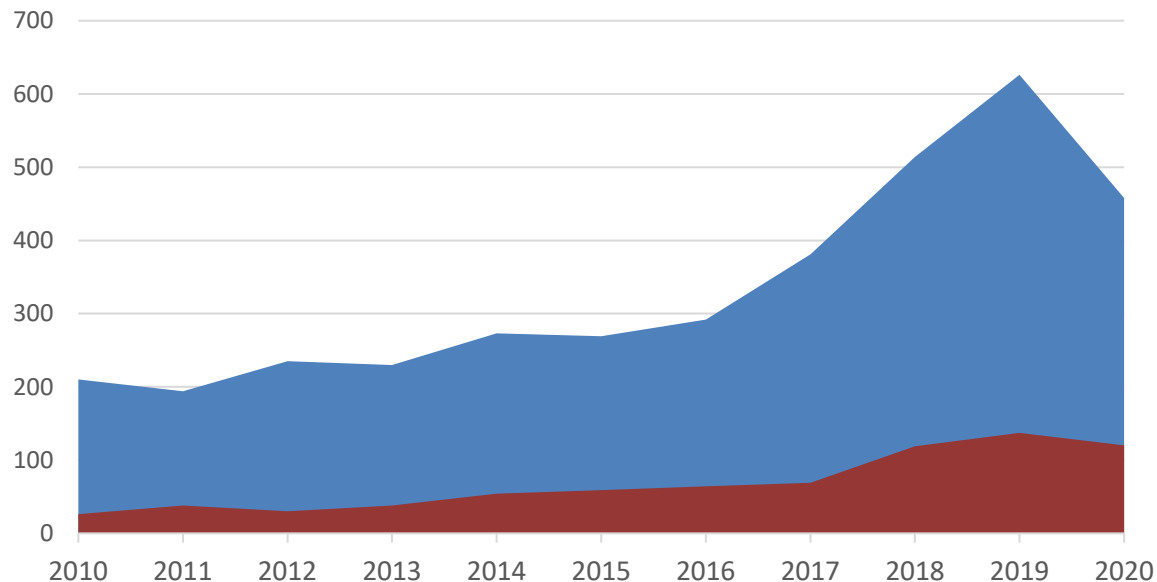
- (1) Not palliative care.
- (2) Not mainland China
- (3) Conference proceedings, theses and dissertations

Results: Annual publications and their impacts



■ Total: 3682 ■ In high-quality journals: 754

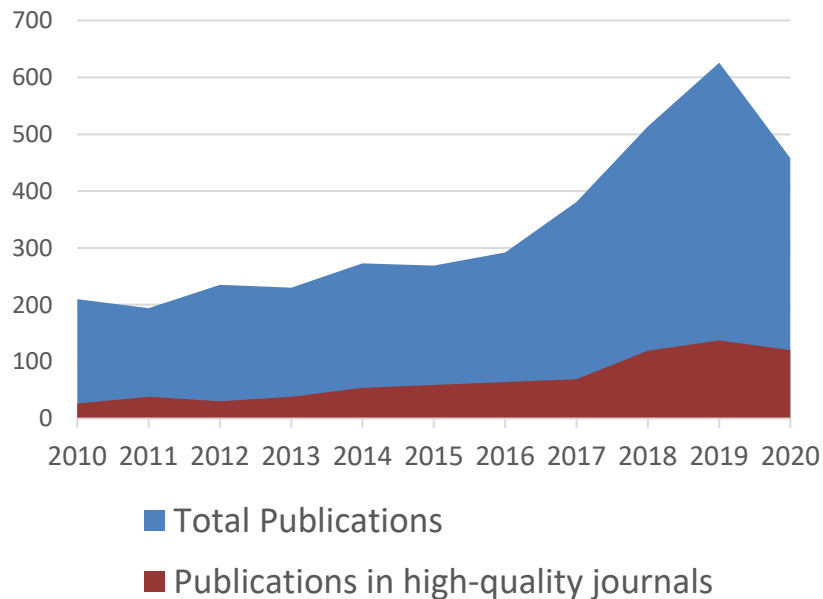
Publication number



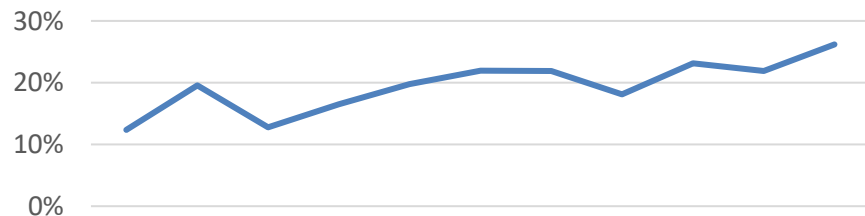
Results: Annual publications and their impacts



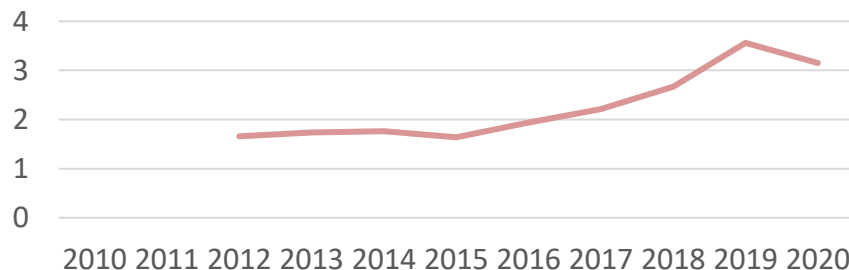
Publication number



Percentage of publications in high-quality journals



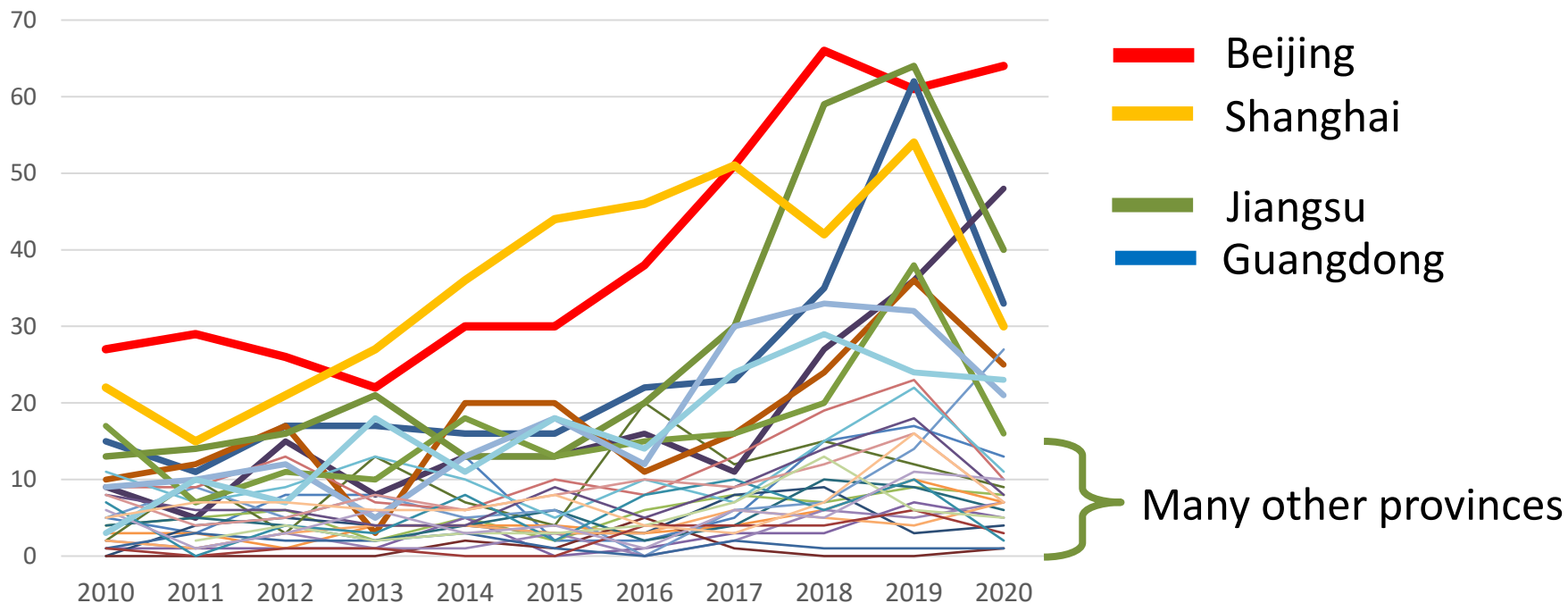
regional impact factor



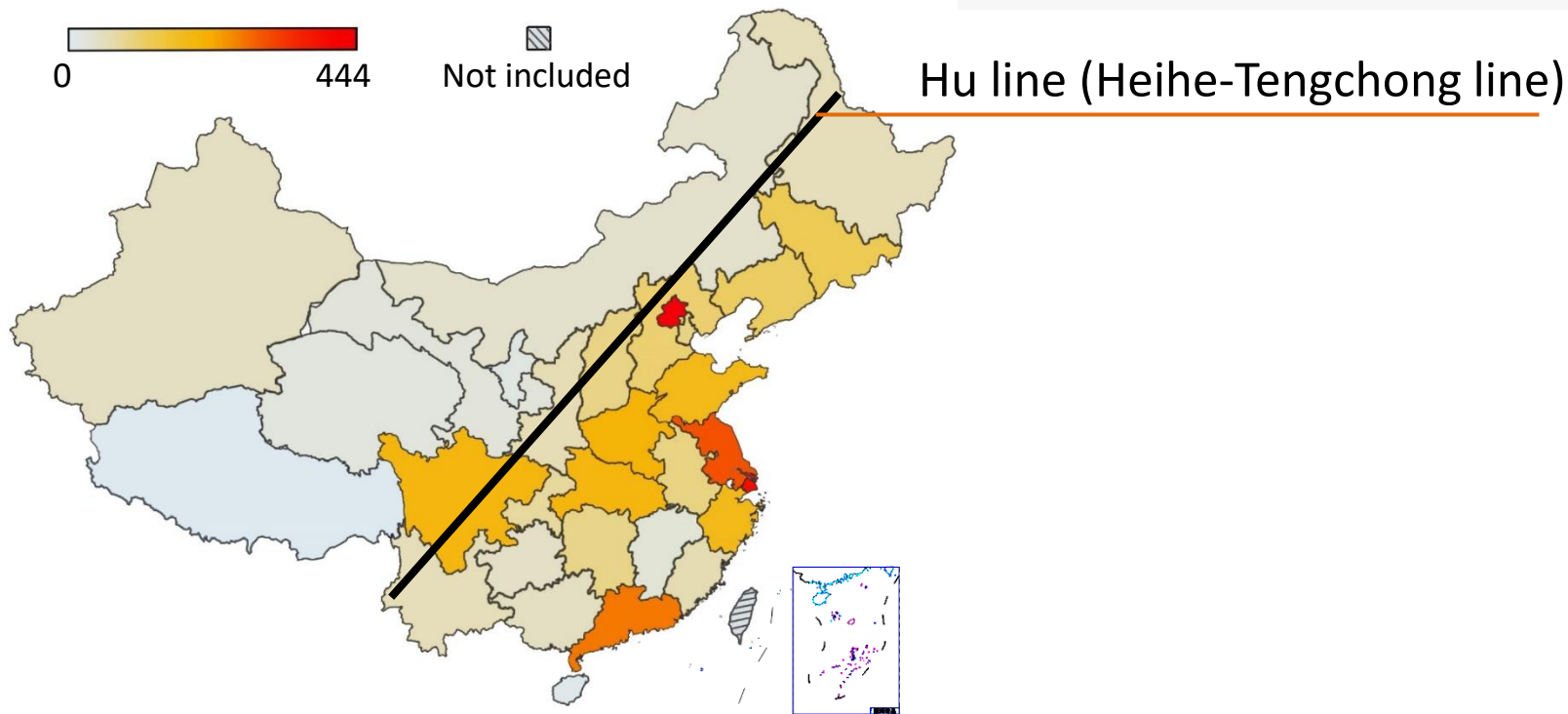
Results: Regional disparity of the publication increase



publication trend of different regions

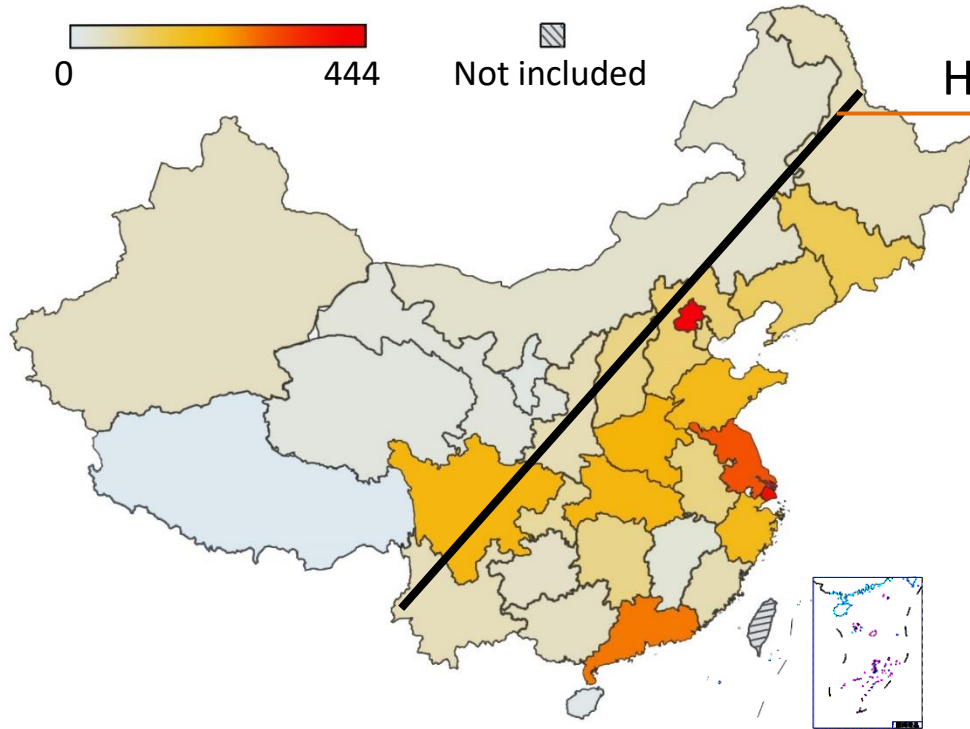


Results: Regional disparity of the publication number



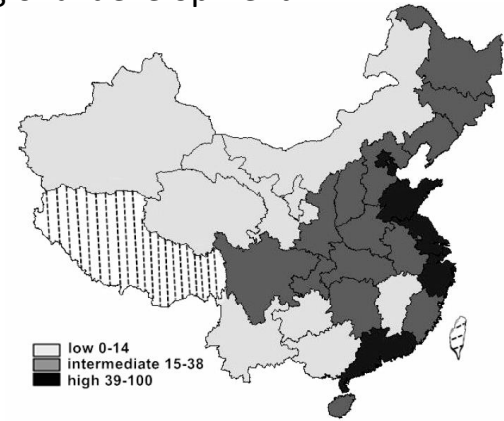
More about the “Hu line”: Qi, W. *et al.* *J. Geogr. Sci.* 2016

Results: Regional disparity of the publication number



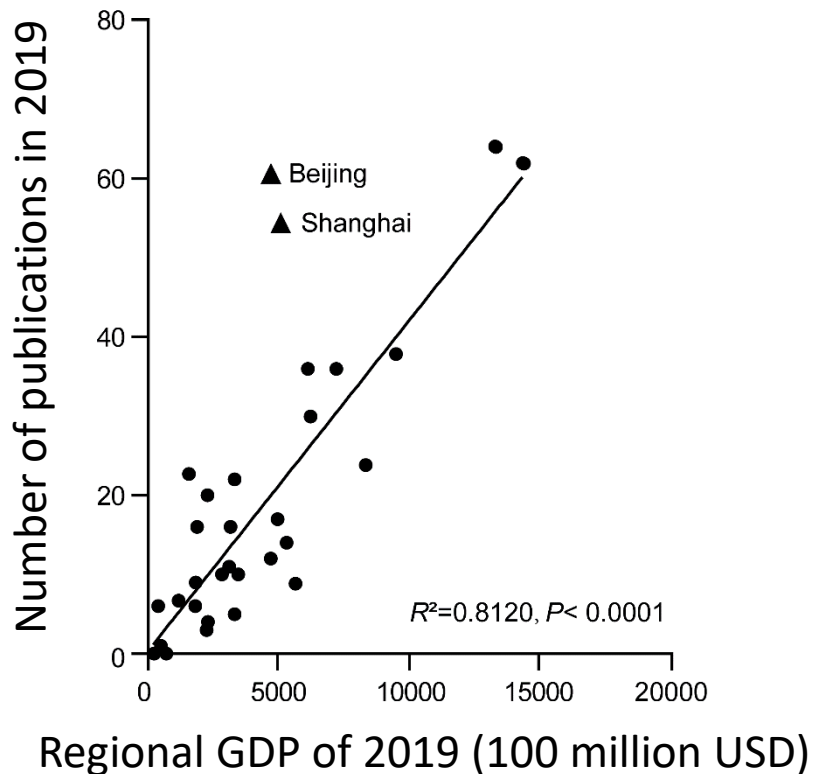
Hu line (Heihe-Tengchong line)

Multiple-dimensional composite index of regional development



Bin P. Sustainability. 2016

Results: Publication number is associated with economy

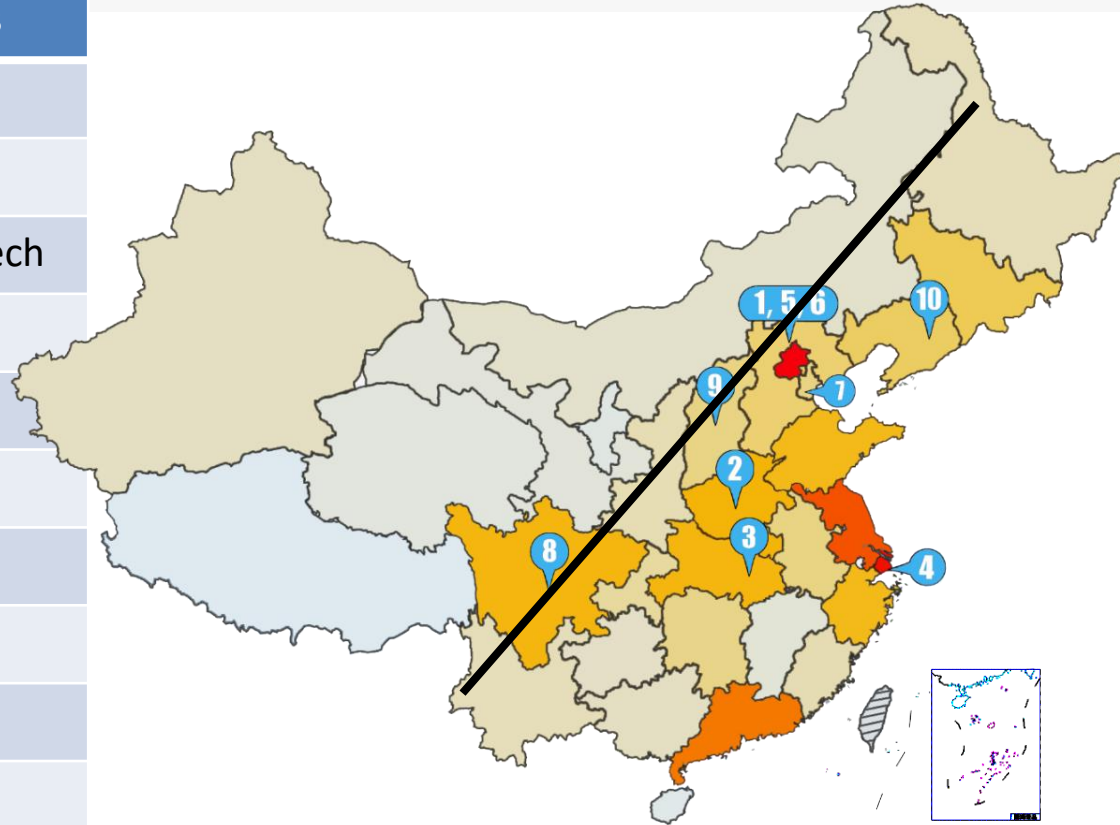


The **richer** a region is,
the **more** publications it has.

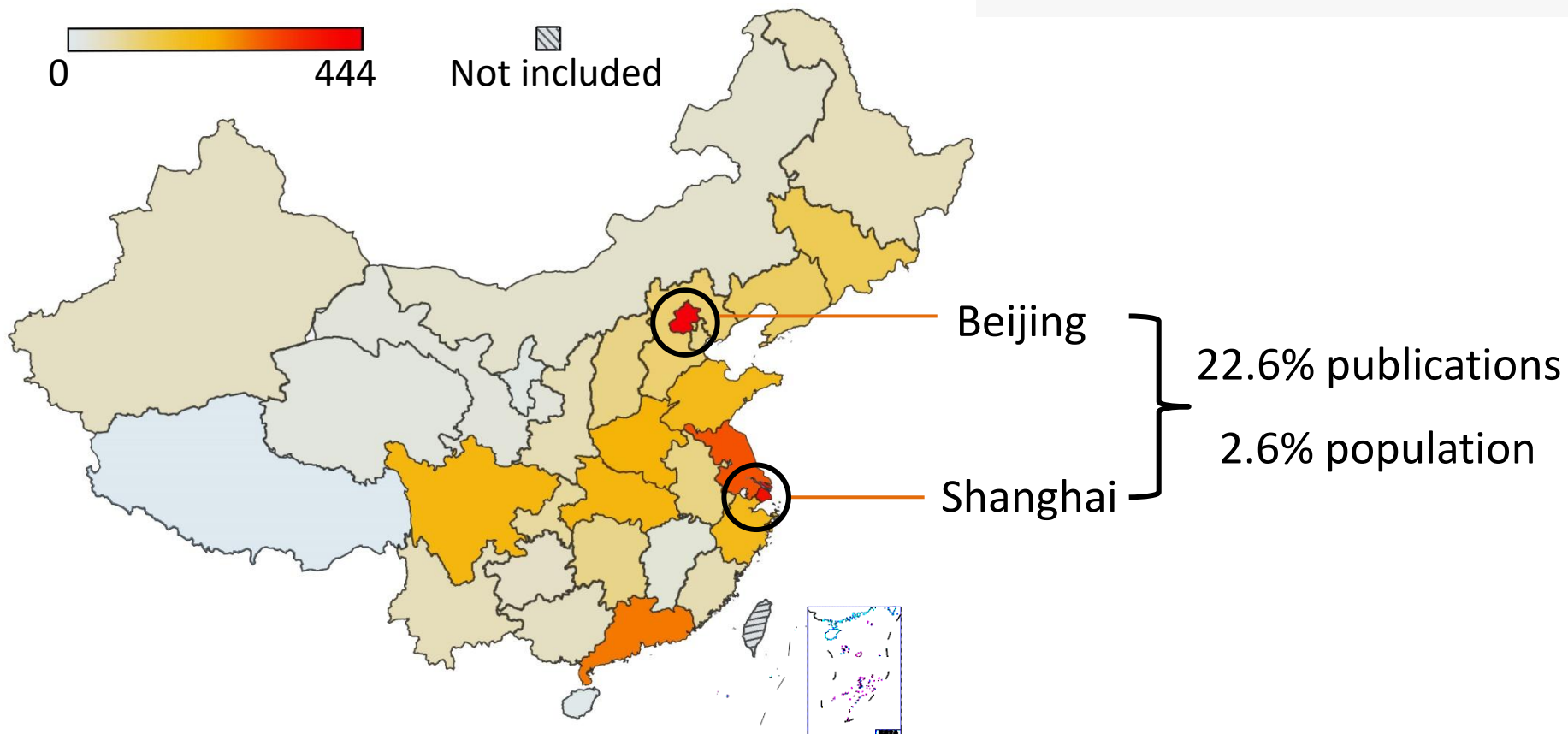
Results: institutes with most publications



Rank	Institutes with most publications
1	Peking University
2	Zhengzhou University
3	Huazhong University of Sci and Tech
4	Fudan University
5	Peking Union Medical College
6	Capital Medical University
7	Tianjin Medical University
8	Sichuan University
9	Shanxi Medical University
10	China Medical University



Results: Regional disparity of the publication number



Results: multi-dimensional description



Production

- Publication number
- Publications per person

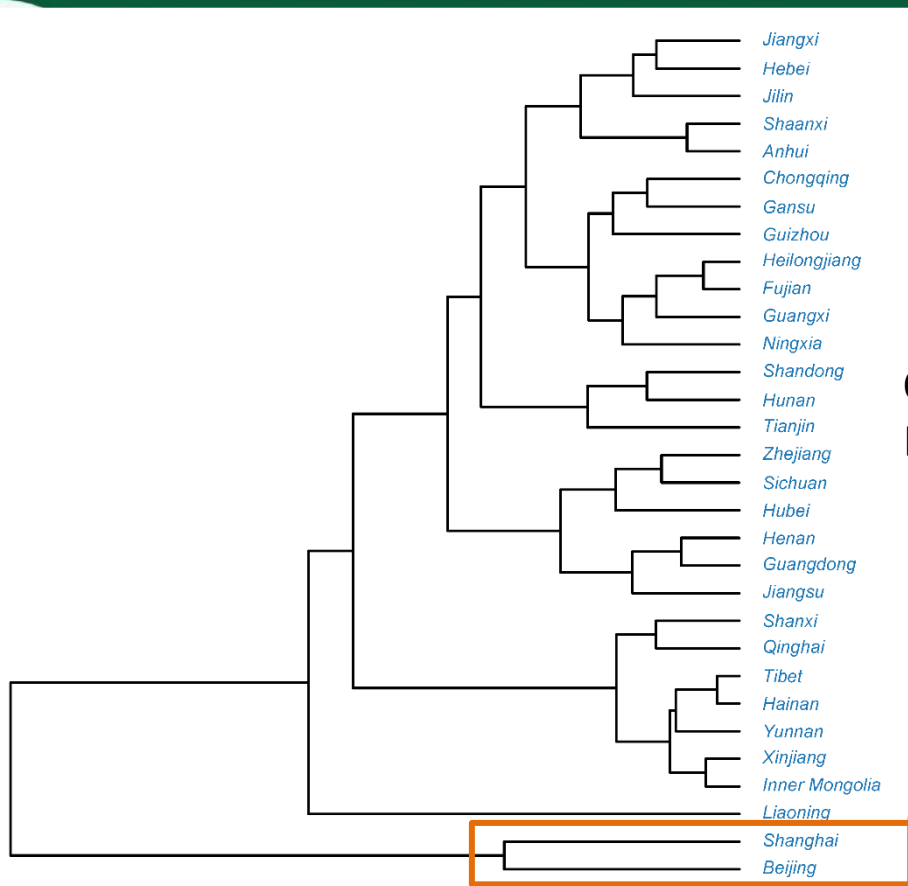
Quality

- 5-year regional impact factor
- Percentage of publications in high-quality journals
- Percentage of original research articles

Rate of increase

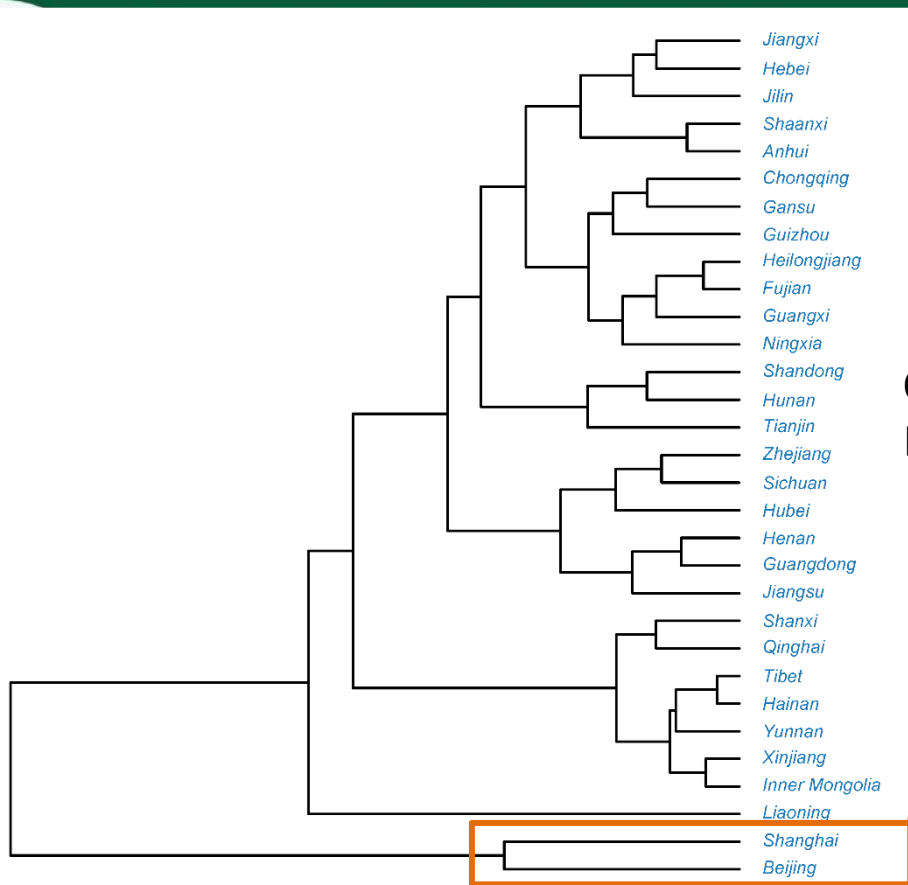
- Slope of publication increase

Results: clustered patterns of publication



One Cluster:
Beijing, Shanghai:

Results: clustered patterns of publication

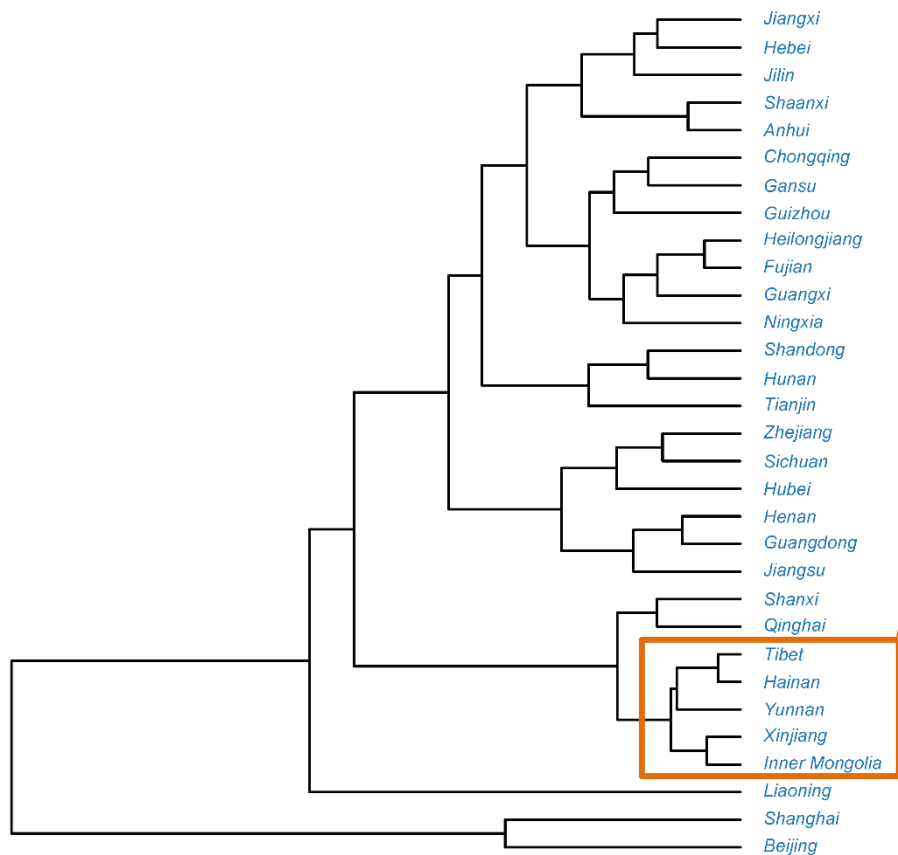


Production 😊

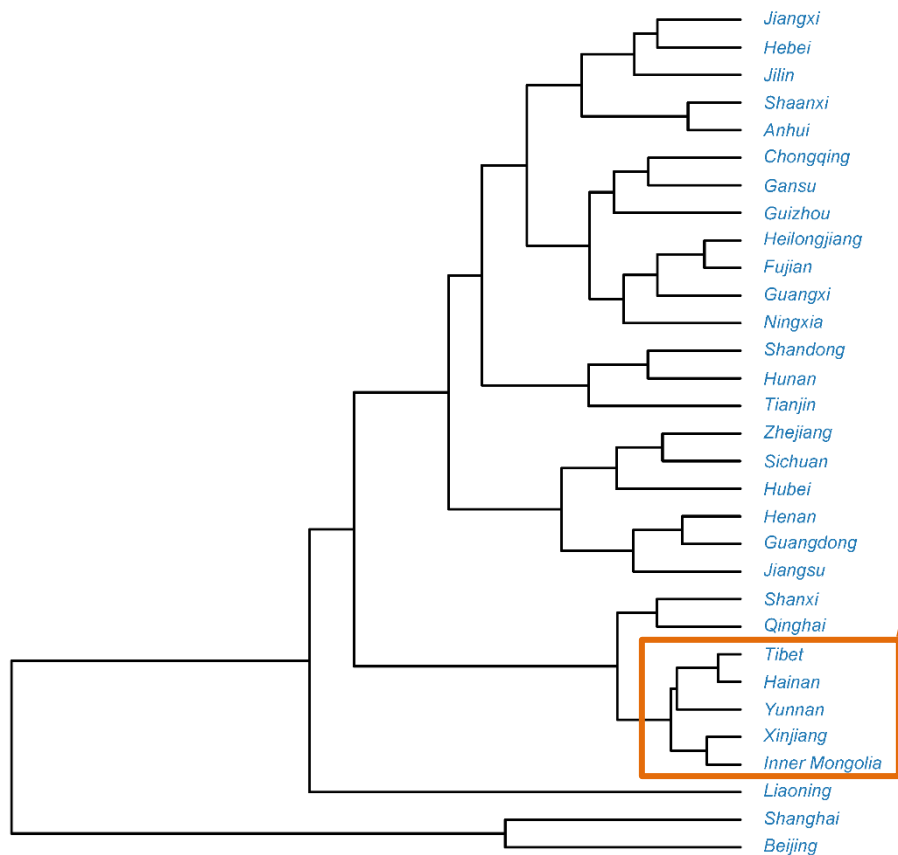
Quality 😊

Rate of increase 😊

Results: clustered patterns of publication



Results: clustered patterns of publication



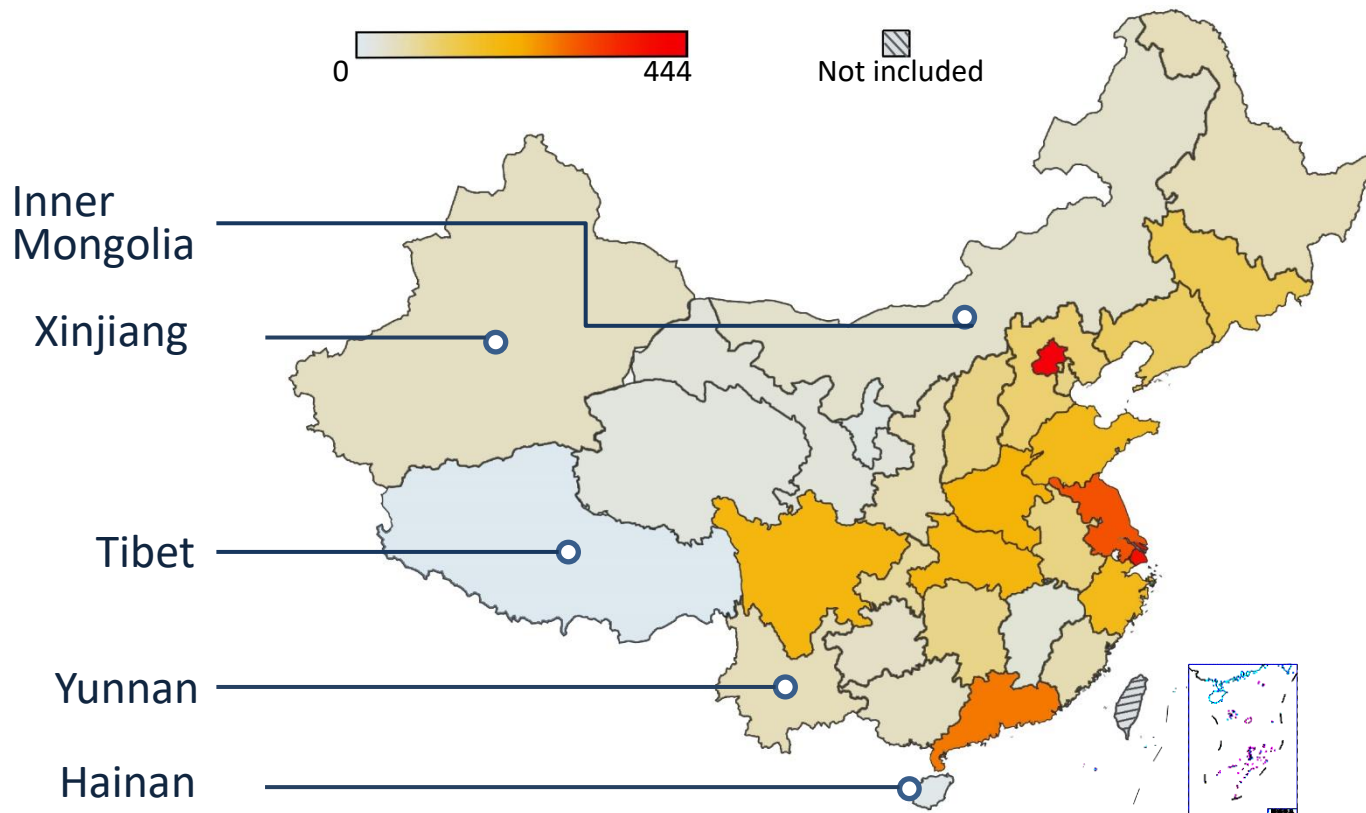
Another cluster:

Production 🙄

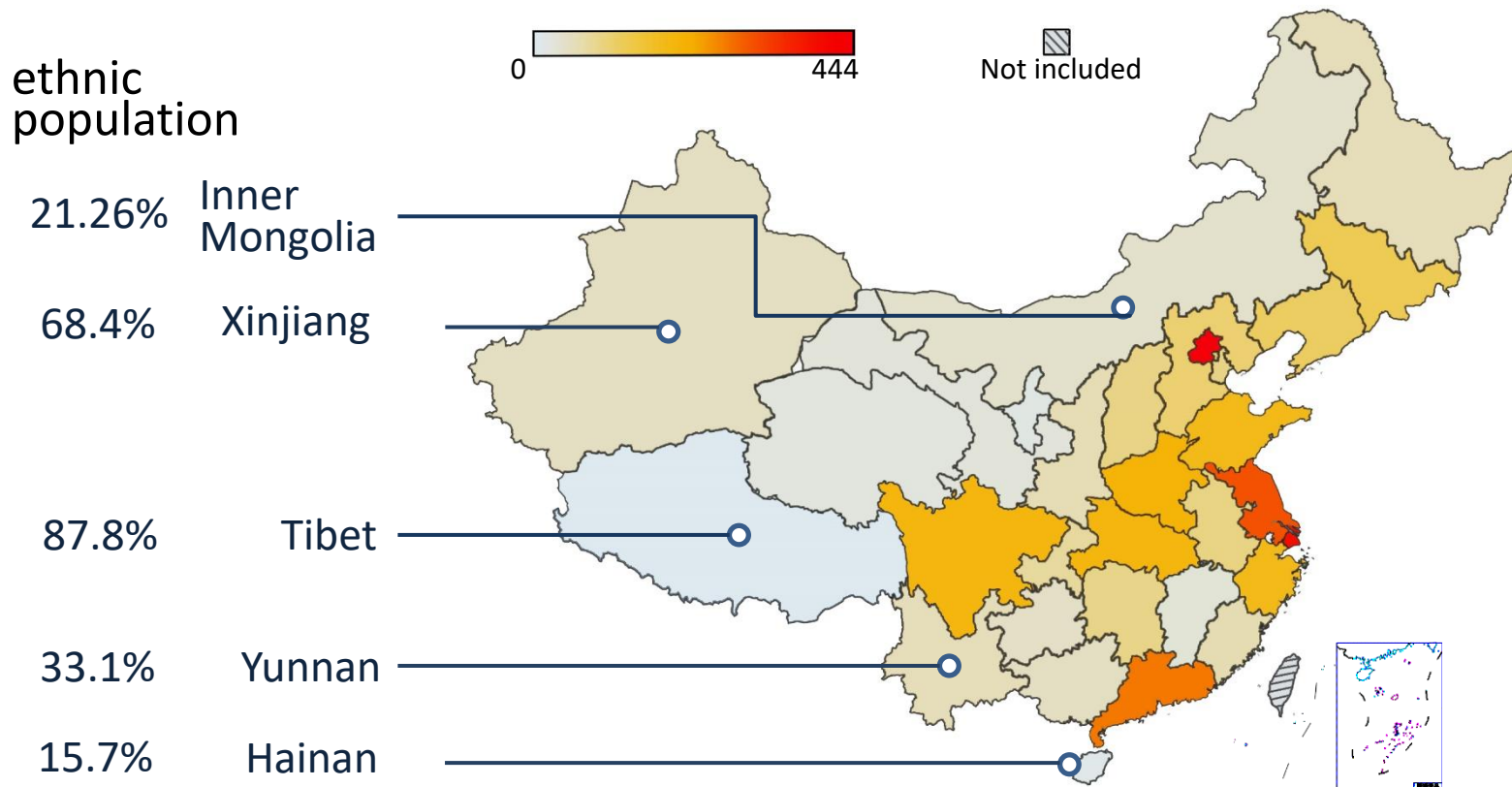
Quality 🙄

Rate of increase 🙄

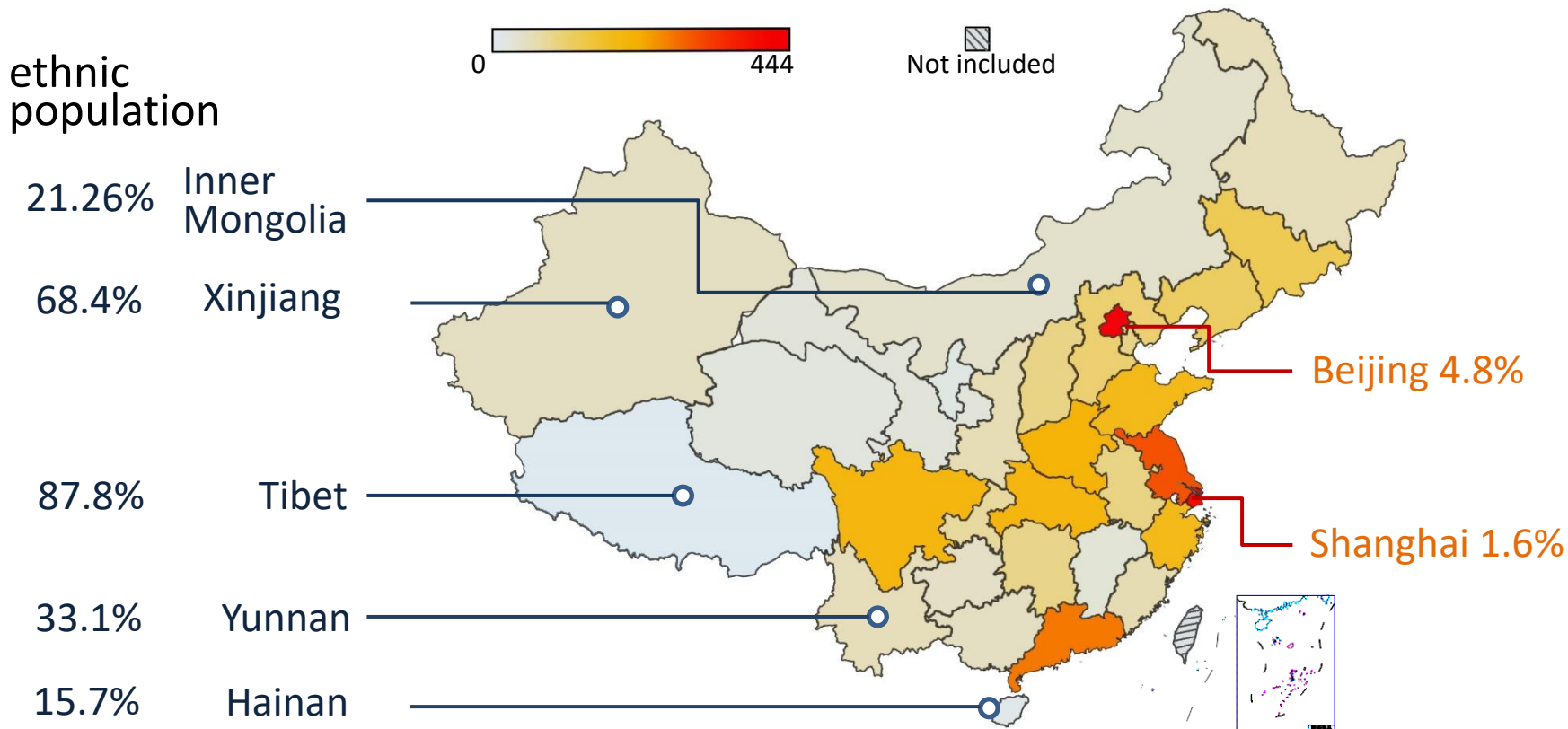
Results: a lack of publications in some provinces



Results: a lack of publications in some provinces



Results: a lack of publications in some provinces



Conclusions / implications:



- There is an overall growth of hospice-and palliative care-related publications.
- The regional disparity was huge. The wealthier regions with more resources had more publications, while provinces in the northwest with many ethnic minorities had far fewer.
- Inequity might become an issue in the future.
- Policies should be made to encourage palliative care-related research and publications in the northwest regions. Collaboration between different regions is needed.

Q & A:



Please feel free to email me at shuangfrankjin@qq.com

Thank you



Methods: bibliometric study



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“安宁疗护”，“临终关怀”

Exclusion:

- (1) Curative medicine.
- (2) English-written articles that focused on Taiwan, Hongkong, Macao, and other places outside Mainland China.
- (3) Translation of work in English.
- (4) Conference proceedings, theses and dissertations

Methods: bibliometric study



Created two indexes to describe the impact/quality of the literature

1. Publications in high-quality journals :

from core Chinese journals / journals included in international databases

2. Regional impact factor:

$$\text{regional Impact Factor 2015} = \frac{\text{literature published in 2014} + \text{2013}}{\text{those literature's citation in 2015}}$$