



Article

Sustainable Development of China's Maternity Insurance System in the Context of Population Policy Changes: Using a Grounded Theory Approach

Xiaotian Zhang ^{1,*}, Xiaoyun Liu ^{1,*}, Yang Wang ^{1,*}, Lulin Zhou ² and Xiaoran Cheng ¹

- China Centre for Health Development Studies, Peking University, Beijing 100191, China; shawnchan0113@163.com
- ² Center for Health Insurance and Public Policy Research, School of Management, Jiangsu University, Zhenjiang 212013, China; zll62@126.com
- * Correspondence: xiaotian_zhang@hsc.pku.edu.cn (X.Z.); xiaoyunliu@pku.edu.cn (X.L.); yang.wang@hsc.pku.edu.cn (Y.W.); Tel.: +86-13775545580 (X.Z.)

Abstract: Background: Declining birth rates have become a challenge for many countries around the world. This study aimed to analyze the influencing factors of the sustainable development of the maternity insurance system and find ways to promote higher birth rates. Methods: We used four multi-stakeholder workshops and in-depth interviews to bring together three groups of people: maternity insurance system developers, implementers, and researchers. Then, we analyzed the factors influencing the sustainability of the maternity insurance system using grounded theory. Results: In this study, the most powerful and effective intervention measures for China in the short term include the policy of merging national health insurance with maternity insurance and a dynamic payment rate policy. In the long term, expanding the coverage of the maternity insurance system and improving the management level of the maternity insurance fund are effective intervention measures. Conclusion: This study subdivides the factors influencing the sustainable development of the maternity insurance system, which has certain theoretical significance and can be used as the theoretical basis for quantitative and empirical research model construction in the future.

Keywords: sustainability; maternity insurance system; birth rates; population policy; grounded theory



Citation: Zhang, X.; Liu, X.; Wang, Y.; Zhou, L.; Cheng, X. Sustainable
Development of China's Maternity
Insurance System in the Context of
Population Policy Changes: Using a
Grounded Theory Approach.
Sustainability 2022, 14, 2138. https://doi.org/10.3390/su14042138

Academic Editors: Esteban Ortiz-Prado and Miguel Angel Garcia

Received: 29 December 2021 Accepted: 9 February 2022 Published: 13 February 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Declining birth rates have become a challenge for many countries around the world as economies develop [1–4]. Some studies suggest that efforts to increase birth rates should be made in terms of fertility attitudes, fertility behaviors, family policies, and assisted reproductive technologies [5–8]. However, the maternity insurance system (abbreviated as MIS) is also important to improving birth rates, as the system itself ensures gender equality, and the payment provided during childbirth reduces the financial stress on mothers during pregnancy [9–11]. In China, MIS has become an important source of income for women during their pregnancy. An unsustainable MIS may reduce women's willingness to have children. For the sustainability of the MIS, it is necessary to make the MIS compatible with socio-economic development and maintain fund balance [12,13].

The number of births in China has been rapidly declining. A drop of 40% in the number of newborns has been observed, from 17.86 million in 2016 to 10.62 million in 2021 (National Bureau of Statistics, 2021). China abolished the existing one-child population and family planning policy in 2015. This was replaced with a comprehensive two-child policy [14]. Although the actual population growth remained lower than expected, the comprehensive two-child policy has been effective in increasing the number of births. According to a recent study [12], the current comprehensive two-child policy in China has

Sustainability **2022**, 14, 2138 2 of 19

already led to the unsustainability of the maternity insurance fund. This is a phenomenon worth examining, as a deficit in the maternity insurance system is likely to change the trend of increasing birth rates among insured people. Therefore, ensuring the sustainability of the maternity insurance system is a prerequisite for recent population policy reforms aimed at improving birth rates.

The MIS in China is one of the five social insurance systems designed to support the citizens. The rest are basic medical insurance, pension insurance, unemployment insurance, and work-related injury insurance [15]. China's MIS can be divided into three stages since its establishment. First, the period of unrestricted childbirth from 1952 to 1977: since the early 1950s, China has consistently promoted new policies and programs to ensure a high maternal survival rate in accordance with global best practices. Some of these notable interventions include The Instructions on the Implementation of the System of Public Medical Care for Staff Members of the People's Governments at Various Levels, Political Parties, Mass Organizations, and Public Institutions Attached to them. This policy was promulgated in 1952 and was followed by another policy called The Notice Concerning the Provisions on the Maternity Leave of Female Staff Members, which was promulgated in 1955 [15]. These policies mainly supported the population policy of encouraging childbirth and expanding the size of the population [16]. Second, the strict family planning phase from 1978 to 2014: the strict family planning phase in China began in the late 1970s and ended in 2014, with the main policy regime being the one-child policy. In 1994, China's Labor Department started The Trial Measures on Maternity Insurance for Enterprise Staff and Workers to help working mothers obtain decent and affordable healthcare and livelihood before, during, and after childbirth [17,18]. Third, the period of family planning relaxation from 2015 to the present: After having abolished the family planning policy in 2015, China has implemented the "one-child policy", and soon after that transitioned to the "comprehensive two children policy". With the new policy, the government also abolished incentives for late parenthood and late marriage [19]. Recently, China is planning to merge national health insurance with maternity insurance [12]. These reforms aim to increase the risk resilience of the maternity insurance fund. China started a pilot reform to merge national health insurance with maternity insurance in individual cities in 2018. However, this policy has not been scaled up to the whole country thus far [17]. It is worth noting that Jiangsu Province is located in mid-east of China and one of the most economically prosperous provinces in China. Its proximity to Shanghai and large coastline make it an economically strategic area in China. Maternity insurance began in Jiangsu much earlier than in many other provinces; it is considered one of the most effective social insurance schemes in China and has become a reference point for other provinces [20]. Figure 1 shows the number of births per year in China and the three distinct phases of the demographic policy (National Bureau of Statistics, 2021).

A review of the literature reveals that the sustainability of social insurance systems, including MIS and national health insurance, in fact mainly depends on the balance of the fund. The balance between funding and payment is driven by a myriad of factors [21]. Specifically, the level of socio-economic development, bank interest rates, population mobility status, taxation, child-care services, education preferences, and housing price regulation indirectly influence it [22], while payment method, compensation policy, the contribution rate, and the number of insured people are the direct factors that have greater impacts and higher frequency [23–25].

Sustainability **2022**, 14, 2138 3 of 19

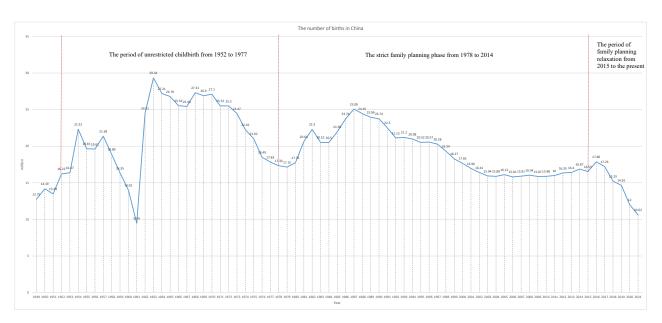


Figure 1. The number of births per year in China and the 3 distinct phases of the demographic policy.

At present, there are few studies on the sustainable development of the maternity insurance system, mainly focusing on the impact of population policies on the MIS [12,15]. Some researchers have focused on the maternity allowance, operation of the maternity insurance fund, and reform of MIS [13,26–28]. Little research has comprehensively and systematically summarized the factors influencing the sustainability of MIS. To address the limitations of prior studies, this study aimed to identify influencing factors of the sustainable development of the MIS, and investigate their mechanisms. This may help to ensure that the MIS is scientifically and rationally reformed and reaches a sustainable state, thus supporting the shift in population policy and ultimately promoting higher birth rates. This study will provide scientific evidence to facilitate the current MIS reform to achieve suitability, with the ultimate goal of improving birth rates.

2. Methods

2.1. Study Design

This study was conducted using the framework of Strauss and Corbin's grounded theory [29]. This theory comprises a systematic inductive methodology that builds theories through the analysis and summary of data. The factors that guarantee the sustainability of maternity insurance have not yet been fully reviewed, and the factors influencing the sustainability of maternity insurance are complex and interrelated. It is difficult to study such in-depth direct and indirect factors through traditional hypothesis testing [30]. Therefore, in this respect, grounded theory is suitable for analyzing the present study's data and deriving new and in-depth insights.

2.2. Case Selection and Data Acquisition

This study used purposive sampling to collect relevant information from multiple authoritative sources. Purposive sampling was chosen because it allows for the selection of people or events that are capable of providing the most relevant and rich information for in-depth research [31]. From 2015 to 2020, We used 4 multi-stakeholder workshops and in-depth interviews to bring together three groups of people: maternity insurance system developers, implementers, and researchers. In total, 24 participants or interviewees were carefully selected, the main sources of which included professors and scholars in social security research at some of the top universities in Jiangsu Province, including: relevant experts from the Jiangsu Provincial Health Insurance Bureau and Jiangsu Provincial Health Insurance Settlement Centre; relevant experts from the Human Resources and Social Security Bureau and Health Insurance Bureau of each city in Jiangsu Province.

Sustainability **2022**, 14, 2138 4 of 19

Thereafter, the data were analyzed using the framework of grounded theory. The three-step coding process of grounded theory was performed via initial, axial, and theoretical coding, and the study's conclusions were drawn by organizing the results according to this coding method [29]. In contrast to formulaic calculations and quantitative models, qualitative research explores and expands on the research question during the research process to help inscribe and derive the essence of the research question. As information becomes saturated, the final theoretical results will be refined. This paper used NVivo 12.0 and EXCEL software to analyze data to investigate factors influencing the sustainability of the maternity insurance system through a grounded theory approach [30,32].

2.3. Ethical Considerations

The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Institutional Review Board of Jiangsu University. Informed consent was obtained from all subjects involved in the study. The researchers also explained to the participants that the interviews would be recorded, the recorded and transcribed data would be used only for research purposes, and the anonymity of the research participants was guaranteed.

3. Results

21% of the 24 participants or interviewees were policy developers from relevant provincial government agencies, 33% of them were researchers from top universities in Jiangsu Province, and 46% of them were policy implementers from relevant government agencies in every cities in Jiangsu Province. More than 70% participants or interviewees were over 40 years old; they had extensive work or research experience. Table 1 shows the characteristics of all interviewees in the study.

Table 1. Interviewee characteristics.

Interviewee	Type	Title	Source	Gender	Age
1	researcher	Professor	University	M	40's
2	researcher	Professor	University	M	40's
3	researcher	Professor	University	M	30's
4	researcher	Professor	University	M	50's
5	implementer	Section Chief	HRSSB of city Z	M	30's
6	developer	Division Director	HISC of J Province	M	40's
7	developer	Deputy Division Director	HISC of J Province	F	30's
8	researcher	Professor	University	M	30's
9	researcher	Professor	University	M	40's
10	implementer	Section Chief	HRSSB of city N	M	40's
11	developer	Consultant	HIB of J Province	M	60's
12	implementer	Section Chief	HISC of city N2	M	30's
13	implementer	Section Chief	HRSSB of city H	M	40's
14	implementer	Section Chief	HIB of city H	M	30's
15	implementer	Section Chief	HIB of city W	M	30's
16	implementer	Section Chief	HIB of city C	M	40's
17	implementer	Section Chief	HIB of city S	F	40's
18	developer	Division Director	HIB of J Province	M	50's
19	developer	Section Chief	HIB of J Province	M	40's
20	researcher	Professor	University	F	40's
21	researcher	Professor	University	M	50's
22	implementer	Section Chief	HISC of city N2	M	40's
23	implementer	Section Chief	HIB of city X	M	40's
24	implementer	Deputy Division Director	HRSSB of city Z	M	40's

Note: HRSSB (Human Resources and Social Security Bureau), HISC (Health Insurance Settlement Centre), HIB (Health Insurance Bureau).

Sustainability **2022**, 14, 2138 5 of 19

3.1. Initial Coding

Table 2 shows 144 initial codes that were derived from workshop and interview data. Although they may not represent the concepts in the strictest sense, they are characterized by the preservation of the originality of the data collected and are the cornerstone of the axial and theoretical coding below. It can be found that the two insurance policies being combined, contribution rate, contribution base, and level of entitlement per capita were frequently mentioned by participants, with all these frequencies being more than 10. There are also some other initial coding results mentioned with frequencies between 6 and 10, such as the comprehensive two-child policy, fund management, maternity insurance fund expenditure items, and the number of insured persons.

Table 2. Initial coding list.

No.	Type	Interview Content Codes
1	Researcher from University	A1 The sustainability of the fund can be judged by the current balance and accumulated balance of the maternity insurance fund; A2 The per capita income of local employees affects the revenue of the fund; A3 The dynamic adjustment of the policy of the unified fund can ensure its dynamic adaptability; A4 The per capita insurance cost expenditure should be in line with the level of local GDP per capita; A5 The reaction of the public to the reform and changes of the maternity insurance system, and degree of support; A6 The response of medical institutions in the face of the reform and changes in the MIS; A7 The degree of implementation of the reform and changes in the MIS by insurance administrators and executive implementers; A8 The degree of awareness, attitude, understanding and support for the maternity policy; A9 Changes in contribution rates should be commensurate with the actual situation.
		•••
24	Implementer from Human resources and Social Security Bureau in city Z	A140 City Z is currently operating in a state of overspending in the maternity insurance coordination fund; A141 City Z has a large budget balance in the individual account of the health insurance fund due to the pilot health insurance policy; A142 City Z needs to scientifically adjust the account structure and cap line if maternity insurance and health insurance are to be implemented together; A143 Although the state has introduced the two-child policy, individual willingness to have children cannot be ignored; A144 The strategy for regulating housing prices and the level of housing prices also affects the willingness to have children.

Note: Due to the length of Table 2, the full version will be included as an annex at the end of the paper (Appendix A. Full Initial Coding List).

3.2. Axial Coding

Through the analysis of the initial codes, the conceptual content of the various concepts in the initial codes was refined, considered, analyzed, and compared. Twenty-nine categories were extracted from policy, social environment, economy, management, population, education, and other dimensions for the purpose of this essential study. Based on the relationships of the 29 sub-categories, seven main categories were derived during axial coding. By counting the frequency of various initial codes, the proportions of seven main categories could be determined: institutional change (20.13%), funding of the maternity insurance fund (20.13%), expenditure from the maternity insurance fund (16.67%), operation of the maternity insurance fund (15.28%), level of maternity insurance coverage (11.81%), health insurance fund performance (11.11%), and willingness to have children (4.86%). The concepts and contents of all the axial codes point to the theme of this study—the factors

Sustainability **2022**, 14, 2138 6 of 19

influencing the sustainable development of MIS. The relationship between the seven main categories and the content corresponding to each is shown in Table 3.

Table 3. Axial coding results.

Main-Category	Sub-Category	Frequency	The Connotation of Initial Coding	Dimension
	Comprehensive two-child policy	7	After the implementation of the comprehensive two-child policy, the number of births covered by the maternity insurance fund increased and the cost of expenditure from the fund increased	Policy
	Two insurance policies combined	13	To avoid overwhelming the maternity insurance fund after the implementation of the comprehensive two-child policy, the state proposes to merge maternity insurance with medical insurance	Policy
	Dynamic Contribution Rate Policy	4	Dynamic adjustment of contribution rates can effectively hedge against the collapse of maternity insurance funds	Policy
Institutional change 20.13%	Drug price reform	1	The price reform in public hospitals has led to a decrease in the price of drugs and an increase in the cost of treatment items, resulting in an increase in maternity insurance expenses	Policy
	Reforming the level of integration	2	The sustainable development of the maternity insurance fund should be based on the concept of sharing, and the trend is to increase the level of coordination in the future	Policy
	Social crisis	2	Social crises such as declining births and aging populations contribute to changes in population policies and thus influence changes in MIS	Social environment
	Cumulative balance	7	The higher the accumulated balance, the more sustainable the maternity insurance fund will be	Economy
Operation of the Maternity	Risk margin situation	2	Risk margin will be used when the fund falls short of its revenue and expenditure	Economy
Insurance Fund 15.28%	Fund Management	8	Improving the management of maternity insurance funds can improve the efficiency of fund operations	Management
	Deficit situation	5	Current deficits will ring alarm bells, cumulative deficits herald fund collapse	Economy
	Contribution rate	13	Contribution rates are determined by national policy and are a very direct and important factor affecting the revenue of maternity insurance funds	Economy
Funding of the maternity insurance fund 20.13%	Contribution base	12	The average contribution base of the maternity insurance fund should have been the average social wage, the size of which is positively related to the revenue of the social insurance fund	Economy
	Gross regional product (GDP)	4	Gross regional product corresponds to the general economic environment of the region and affects people's income	Economy

Sustainability **2022**, 14, 2138 7 of 19

Table 3. Cont.

Main-Category	Sub-Category	Frequency	The Connotation of Initial Coding	Dimension
	Level of entitlement per capita	13	Level of total annual maternity insurance fund expenditure apportioned to each individual	Economy
Expenditure from the maternity insurance fund 16.67%	Maternity insurance fund expenditure items	9	The expenditure of the maternity insurance fund mainly covers prenatal check-ups, one-off nutrition benefits, maternity allowances, cesarean sections, treatment of complications, hospital deliveries, family planning operations, etc. The more items there are, the more likely it is that the expenditure will increase	Economy
	Number of beneficiaries	2	The higher the number of people entitled to maternity insurance benefits, the greater the expenditure of the maternity insurance fund and vice versa	Population
Level of maternity insurance coverage 11.81%	Number of insured persons	9	The number of participants is an important factor affecting the revenue of the social insurance fund, and to a certain extent, it has a positive relationship with the revenue of the social insurance fund, i.e., the greater the number of participants, the greater the revenue of the social insurance fund	Population
	Population movements	3	Mobile population as a potential insured population	Population
	Coverage	5	Expanding coverage can boost maternity insurance fund revenue	Population
	Fertility Policy Awareness	2	A high level of awareness can increase willingness to have children	Policy
	Bank Rate	1	Boosting or reducing income affects willingness to have children	Economy
Willingness to	Personal tax deductions	1	Boosting or reducing income is associated with financial stress	Economy
have children 4.86%	Childcare services	1	A good package of childcare services can reduce the pressure on people who have children	Education Services
	Education offers	1	Excellent education policies can reduce the pressure on people who give birth	Education Services
	House price control	1	Reasonable house prices allow people with children to put their worries aside	Economy

Sustainability **2022**, 14, 2138 8 of 19

TT. 1.	1	C 1
Tab	ie 3.	Cont.

Main-Category	Sub-Category	Frequency	The Connotation of Initial Coding	Dimension
	Funding levels	5	If the two insurances are combined, the higher the level of funding of the health insurance fund the higher the sustainability of the fund, which in turn affects the sustainability of the maternity insurance fund	Economy
Health insurance fund performance	Expenditure profile	5	A reasonable level of expenditure is conducive to the sustainability of the health insurance fund, which in turn affects the sustainability of the maternity insurance fund	Economy
11.11%	Fund pool cumulative holdings	4	The accumulated pool of the medical insurance fund is much larger than the maternity insurance fund, and if combined, could improve the sustainability of the maternity insurance fund	Economy
	Population insured	2	The higher the coverage of the insured population, the higher the revenue of the health insurance fund	Population

3.3. Theoretical Coding

Through in-depth mining analysis of the seven main categories obtained from the axial coding and their corresponding categories, as well as a continuous comparative analysis with the initial coding and the original data, a theoretical coding of the factors influencing the sustainability of the MIS was developed. The relationship between the seven main-categories and the content corresponding to each is shown in Figure 2. In this Figure, the main categories are systematically and theoretically linked, and the findings are logically condensed, and then are constructed into a theoretical framework.

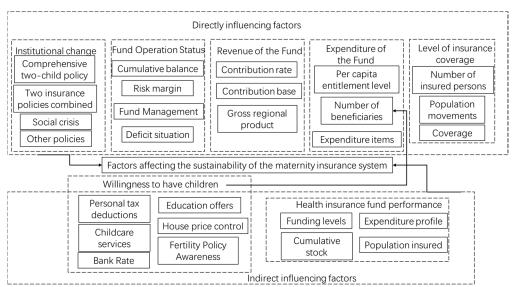


Figure 2. Influencing factor model of the sustainable development of maternity insurance system.

3.3.1. Institutional Change—Sustainable Development of MIS
Institutional changes directly affect the sustainable development of the MIS.

Sustainability **2022**, 14, 2138 9 of 19

First, due to social crises such as population aging and low birth rates, the national government has adjusted its population policy and the comprehensive two-child policy has replaced the one-child policy.

Second, because of the increase in the number of newborns after the implementation of the comprehensive two-child policy, the expenditure of the MIS became higher than the revenue. The sustainability of the MIS was undermined.

Third, the national government reformed the MIS by adjusting contribution rates and expanding coverage to restore the sustainability of the MIS.

3.3.2. Operation of the Maternity Insurance Fund—Sustainable Development of MIS

The operating status of the maternity insurance fund directly affects the sustainability of the MIS.

First, the higher the balance of the maternity insurance fund, the longer it will be able to maintain a sustainable state.

Second, improving the management of the maternity insurance fund increases the efficiency of the fund's operation, which is beneficial to the sustainable development of the MIS.

3.3.3. Financing of Maternity Insurance Funds—Sustainable Development of MIS

The financing of the maternity insurance fund directly affects the sustainability of the MIS.

First, the higher the contribution rate of the MIS, the more revenue the maternity insurance fund will generate. A moderate adjustment of the contribution rate will help the sustainable development of the MIS.

Second, the higher the GDP, the higher the contribution base, and the contribution base is positively related to the revenue of the maternity insurance fund.

3.3.4. Expenditure of the Maternity Insurance Fund—Sustainable Development of the MIS

The expenditure of the maternity insurance fund directly affects the sustainability of the MIS.

First, if the expenditure of the maternity insurance fund is higher than the revenue, it will reduce the balance of the maternity insurance fund.

Second, the higher the per capita expenditure of the maternity insurance fund, the higher the total expenditure.

Third, the greater the variety of items of expenditure in the MIS, the higher the total expenditure.

Fourth, the higher the number of beneficiaries of the MIS, the higher the expenditure of the maternity insurance fund.

3.3.5. Level of MIS Coverage—Sustainable Development of MIS

insurance fund increases.

The level of coverage of the MIS directly affects the sustainability of the MIS. The wider the coverage of the MIS and the more insured people there are, the more resilient the maternity insurance fund will be.

3.3.6. Willingness to Have Children—Sustainable Development of MIS

People's willingness to have children indirectly affects the sustainability of the MIS. First, when people's willingness to have children increases, the number of births increases, the number of beneficiaries of MIS increases, and the expenditure of the maternity

Second, for the government, increasing the willingness to have children requires policy, economic, educational interventions, and so on.

Sustainability **2022**, 14, 2138 10 of 19

3.3.7. National Health Insurance Fund Operation—Sustainable Development of MIS

If the MIS is merged with the national health insurance system, the operation of the national health insurance fund will be the indirect factor influencing the sustainability of the MIS.

First, if the two insurance systems are merged, the higher the level of financing of the national health insurance fund, and the more sustainable it will be. Indirectly, the sustainability of the maternity insurance fund will be affected.

Second, a reasonable level of expenditure is conducive to the sustainability of the national health insurance fund and indirectly affects the sustainability of the MIS.

Third, the fund balance of the national health insurance is much higher than the maternity insurance fund, which indirectly increases the sustainability of the MIS.

Fourth, the wider the coverage of the national health insurance system and the more people insured, the higher the revenue of its fund, which indirectly increases the sustainability of the MIS.

4. Discussion and Conclusions

This qualitative research adopts the grounded theory method to develop a substantive theory that helps to comprehensively understand and explain the factors influencing the sustainable development of China's maternity insurance system and how they interact, under the background of population policy changes. The research results include seven core categories, five direct effects (institutional change, fund operation status, revenue of the fund, expenditure of the fund, level of insurance coverage), and two indirect effects (the willingness to have children, health insurance fund performance).

In this study, institutional change is considered to be the core direct determinant of the sustainable development of the MIS. The influencing mechanism can be simply described as the following process. First, social crisis, such as the aging of the population and the continuous decrease in the birth rate, has led to the adjustment of population policy, namely the introduction of a comprehensive two-child policy. Second, after the implementation of the policy, the birth population and the number of pregnant women enjoying benefits increased, destroying sustainability of the MIS. The increase in constant revenue and expenditure of maternity insurance has led to the unsustainability of the MIS. Finally, the national government found this unsustainable, so it reformed and changed the MIS by adjusting the payment rate, merging the two insurances, expanding the coverage, and other measures, so as to keep it sustainable and adapt to the current population policy, large population environment, and economic environment, so as to solve the crisis.

For China, the most important influencing factor in the category of institutional change currently is the comprehensive two-child policy, which was formally proposed at the Fifth Plenary Session of the 18th CPC Central Committee as a new population policy of the Chinese government to address social crises such as aging populations and declining birth populations. After the comprehensive two-child policy was launched, the number of births increased, alleviating, to some extent, the social crisis of the declining birth population and aging population structure in China. However, after the comprehensive two-child policy was introduced, the number of pregnant women enjoying benefits under the MIS increased, and the constant revenue and expenditure of the MIS increased, which may lead to the unsustainability of the MIS, becoming an important factor triggering the change of the MIS. This observation is consistent with the earlier work of Antwi and colleagues, who indicated that the maternity insurance fund balance in Guangxi Zhuang Autonomous Region China also began accumulating escalating levels of deficits in 2019. Although this is not the first time that the maternity insurance scheme in these two regions has experienced a decline in fund balance, it is believed that the comprehensive two-child policy program implemented across China in 2015 has contributed to the deficit accumulation of the maternity insurance fund [14,15].

In this study, the most powerful and effective intervention measures for China in the short term include the policy of merging national health insurance with maternity Sustainability **2022**, 14, 2138 11 of 19

insurance and the dynamic payment rate policy. In the long term, expanding the coverage of the MIS and improving the management level of maternity insurance fund are effective intervention measures. Specifically, under the background of two-child policy implementation, merely the MIS alone cannot support it; combining the MIS together with the central government, the enterprises, and institutions is big policy direction aimed at reduced pressure and burden; increasing the contribution rate to ensure sustainable operation of the implementation of birth insurance fund may be more difficult. Therefore, according to international experience, the combination of maternity insurance and medical insurance is relatively easy to achieve at this stage. From an objective perspective, the accumulated balance of China's urban medical insurance fund is 47 times that of the maternity insurance fund. The combination of the two insurance types can drive the MIS, which is on the edge of deficit, out of the dilemma and achieve sustainable development. Additionally, the index, such as the pay rate, should be adjusted according to the actual operation of the maternity insurance fund to establish a dynamic financing mechanism. This is in line with Huang's view, who points out that China's maternity insurance contribution rates should range between 0.5 and 1%. Therefore, employers can choose to contribute at any rate on their own, but not lower than 0.5%, and it is highly feasible to implement a dynamic payment rate policy [33].

In this study, the willingness to have children is the more important one among the indirect influences. For China, increasing the willingness to have children requires policy, economic, and educational interventions, as well as others. In the short term, as the family planning policy is deeply rooted in people's minds; people will have a process of understanding and reacting after the country decides to relax the family planning policy. The continuous publicity of the new population policy is conducive to improving the insured people's understanding and awareness of the details of the relaxed family planning policy, so that it is reasonable and legal to have a second child. This is in line with Eroglu and colleagues, who argue that cultural norms and values significantly affect birth rates [5]. Specific measures of fertility incentives and family policies include baby bonuses, family allowances, maternal, paternal, and parental leave [34]. In the long term, tax policy reform, housing price regulation, childcare services, and education system reform need to be promoted. These potential interventions are supported by previous empirical studies. For example, this is supported by some research in which the analysis of the data from the China Household Finance Survey between 2013 and 2017 demonstrated an approximately 0.94% decrease in the probability of having a child under two, with a 1% increase in housing prices [35]. Taxes and education also have a strong impact on the willingness to have children [36].

The final results of this study are condensed into a model of the factors influencing the sustainability of MIS, which is in fact a theoretical framework that can guide development of a quantitative model to simulate the reality of the operation of maternity insurance, providing implications to its reform and adjustments. Previous studies on the sustainability of maternity funds have mostly used structural equations and actuarial models, but there is a lack of a general model that encompasses all factors in the operation of maternity insurance. For example, Antwi and colleagues only calculated the effect of maternity insurance fund revenue and expenditure factors on maternity insurance in Jiangsu Province and Guangxi Autonomous Region before and after the comprehensive two-child policy [15].

This study has two limitations. First, the study analyzed a single case of China's maternity insurance system, and the participants of workshops and in-depth interviews were mainly from Jiangsu province, thus, the results may not be generalizable to other countries. Second, we applied grounded theory to this exploratory study, which has determined a comprehensive list of influencing factors; however, their relationships have not been quantified. Our future research will seek to further define the relationship between the sustainable development of the maternity insurance system and population policy adjustment on the basis of quantitative analysis. The opinions of couples of childbearing ages on the MIS will also be collected through interviews, so that these questions, such as

Sustainability **2022**, 14, 2138 12 of 19

what the contribution rate should be set at for a sustainable maternity insurance system, can be answered through modeling or simulation.

Author Contributions: X.Z. drafted the full manuscript and conducted data analysis. X.Z., X.L., L.Z. & Y.W. conceptualized, designed and executed the study, including acquisition of data. Y.W. & X.C. provided critical comments and substantially revised. All authors critically revised the manuscript, agree to be fully accountable for ensuring the integrity and accuracy of the work, and read and approved the final manuscript. All authors have read and agreed to the published version of the manuscript.

Funding: This study was supported by the National Social Science Foundation of China (19FGLB006).

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and ap-proved by the Institutional Review Board of the Jiangsu University.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Acknowledgments: We acknowledge the support from all experts in 4 sessions of multi-stakeholder workshop for their help in study design, methodology and interpretation.

Conflicts of Interest: The authors report no conflicts of interest in this work.

Appendix A. Full Initial Coding List

		Full Initial Coding List
No.	Type	Interview Content Coding
1	Researcher	A1 can judge the sustainable state of maternity insurance fund by the current balance and accumulated balance; A2 The per capita income of local employees will affect the revenue of the fund; The dynamic adjustment of A3 pooling fund policy can ensure its dynamic adaptability; A4 Per capita insurance expenses should be commensurate with the local per capita GDP level; A5 The public's response to the reform and change of maternity insurance system, and the degree of support; A6 Response of medical institutions to the reform and change of maternity insurance system; A7 The degree of implementation of the reform and change of maternity insurance system by insurance handling personnel and implementation personnel; A8 The degree of cognition, attitude, understanding, and support for the birth policy; A9 Changes in payment rates shall be in line with actual conditions.
2	Researcher	A10 Comprehensive two-child policy destroys the balance of maternity insurance fund; A11 The increase in the number of participants has a positive impact on the fund balance; A12 Payment rate adjustments should be scientifically determined to prevent excessive surpluses or deficits.
3	Researcher	A13 The balance of maternity insurance fund is mainly considered from two aspects: financing and payment; A14 Any factor affecting the financing or disbursement of the fund will have an impact on the balance of the fund; A15 The funding level of maternity insurance fund is much lower than that of medical insurance; A16 The number of insured payers is a direct factor affecting the level of financing; A17 Payment rate directly affects the level of financing; A18 Contributory wage base also affects financing level; A19 The average salary of employees is linked to the level of social and economic development; A20 The number of insurance participants is affected by the structure of employees; A21 Some factors will indirectly affect the scale of fund financing; A22 The type, level and mode, of payment affect the expenditure of maternity insurance fund.

	Full Initial Coding List			
No.	Type	Interview Content Coding		
4	Researcher	A23 The number of people covered by the maternity insurance system directly affects their income; A24 Payment rate is a direct factor affecting the amount of financing; A25 Contributory wage base is a direct factor affecting the amount of financing; A26 The more people who participate in maternity insurance, the greater the amount of funds raised by maternity insurance fund; A27 The higher the premium rate of maternity insurance, the more funds raised by the maternity insurance fund; A28 The larger the wage base, the more funds raised; A29 The structure of active and retired personnel is an indirect influencing factor; A30 The level of social and economic development is an indirect factor; A31 Population flow is an indirect factor; A32 Bank interest rate is an indirect factor.		
5	Implementer	A33 Before the adjustment of the payment rate, the accumulative balance of maternity insurance fund will be paid for approximately 6 to 9 months; A34 Risk margin withdrawal ratio is 10–15%; The A35 vaginal birth costs approximately 5000 yuan, of which 3000 is paid by the maternity insurance fund. The C-section costs approximately 8000 yuan, of which 5000 is paid by the maternity insurance fund. Among A36 insured people, floating population is a gap and gap at present, which will increase financing revenue after all of them are included. A37 The scope of the two-child policy is very small, so the comprehensive two-child policy may have a greater impact on the maternity insurance fund. The economic development level of A38 Z city also affects the fund-raising level of maternity insurance fund		
6	Developer	A39 Payment rate will be changed from fixed rate to dynamic floating rate; A40 At present, maternity insurance funds in the province are mainly the data of actual receipts and disbursements, while the data of receivables and disbursements cannot be revealed; A41 Maternity insurance fund management level is still in a relatively extensive degree; For A42, population policy directly affects the number of second children, and people's fertility intention is also an important factor. The price reform of A43 public hospital reduces the price of drugs, increases the cost of diagnosis and treatment items, and increases the expenditure of maternity insurance; A44 After the relaxation of the two-child policy, there will be an increase in the number of elderly women, which may lead to an increase in the rate of dystocia and expenditure; A45 In the future, if the cost of midwifery is added to maternity insurance, the fund expenditure will also increase; A46 At present, it is difficult to determine the risk control point when the payment rate should be raised or lowered; A47 Individual expenditure treatment needs to be cancelled in some regions to unify and standardize expenditure items; A48 Bank interest rate and individual tax deduction policy also affect the revenue of the maternity insurance fund to a certain extent		

		Full Initial Coding List
No.	Type	Interview Content Coding
7	Developer	A49 The average annual salary of employees affects the revenue of maternity insurance fund; A50 The number of insured people, the number of on-the-job workers and the number of workers with labor relations all affect the revenue of maternity insurance fund; The management of A51 maternity insurance fund is also very important, which is well managed. There are N cities and C cities in J province at present, and the balance is relatively large. The longitudinal time axis of the treatment level of A52 fluctuates greatly, with an annual increase rate of approximately 10%; A53 Maternity insurance fund settlement method currently has pay by disease, pay by unit, etc., not unified, so the treatment level of fund expenditure in each city is not the same, the goal of the future needs to achieve unified treatment; A54 At present, the pooling level of maternity insurance fund is municipal-level pooling, which is weak in risk resistance, and some cities have deficits. The number of insured people in A55 J province continues to rise, by several million each year. The number of second children in A56 is different in different parts of J Province. The number of births in N2 has a small change, while the number of births in H has a large increase, but on the whole the number is less than the predicted number; A57 Childcare services, educational resources, housing price regulation, and other factors indirectly affect people's willingness to have children, thus affecting the number of second children.
8	Researcher	A58 China's population structure affects the number of births; A59 The willingness to have children affects the implementation of the two-child policy; A60 It will be more scientific to consider the financing according to the expenditure of maternity insurance fund, but how to forecast is a problem; The contents of A61 maternity insurance subsidies are also changing; A62 Gross regional product affects the revenue of public insurance, and funding levels are different in different regions; A63 reducing the payment rate can rapidly consume the accumulated balance of the maternity insurance fund in a short term; A64 The difference between the expenditure policy of the maternity insurance fund for the second child and that of the first child will also affect the sustainability of the fund; A65 Fertility surveys are important.
9	Researcher	A66 The future trend is to further improve maternity subsidies; A67 On the sustainable development of the maternity insurance fund to share the concept, improving the overall planning level is the development trend; A68 for the sustainable development of maternity insurance fund to have foresight, it should dynamically grasp the adjustment of payment rates; A69 If maternity insurance and medical insurance are combined in the future, the fund pool reserves of medical insurance fund will be much larger than maternity insurance fund, which can improve the sustainability of maternity insurance fund; If A70 is merged, the sustainability of medical insurance fund will affect the sustainability of maternity insurance fund.
10	Implementer	A71 At present, the balance of maternity insurance fund in various cities is not balanced; A72 With the increase of wage income, the fund-raising level of maternity insurance fund is also improving; A73 Due to the implementation of the two-child policy, both the Ministry of Finance and J Province have issued some documents. Specifically, we can pay attention to The No. 70 document of the Ministry of Finance and No. 331 document of J Province; A74 In the future, if maternity insurance and medical insurance merge, this does not represent the disappearance of maternity insurance, because in function, maternity insurance can guarantee the rights and interests of female workers; A75 If the two insurances are successfully merged, the revenue and expenditure of urban employee medical insurance will also indirectly affect the sustainability of maternity insurance fund.

		Full Initial Coding List
No.	Type	Interview Content Coding
11	Developer	In terms of policy A76, the fifth Plenary Session of the 13th Central Committee of the Communist Party of China issued a two-child policy, which will affect the sustainability of the maternity insurance fund; A77 In terms of economy, the large economic environment affects the GDP growth rate of our province, and the GDP growth rate affects the growth of the average annual wage of our province. The average annual wage is the source of the contribution base of maternity insurance. All these factors affect the sustainability of maternity insurance fund; A78 In terms of population, the total population affects the number of employees on the job, and the number of employees on the job affects the number of insured people, which in turn affects the sustainability of maternity insurance fund. At present, China is confronted with the crisis of birth decreases and population aging, so the national government adjusts the population policy to increase the birth population and slow down the sudden arrival of the aging society.
12	Implementer	The maternity insurance fund of A80 N2 city is currently in deficit, which is related to the insured personnel structure and financing level of N2 City; A81 can establish a monitoring system to predict the state of maternity insurance fund in the short and medium term and adjust the payment rate in real time; A82 Mining scientific and reasonable risk indicators, conducive to the sustainable maternity insurance fund; The accumulated balance of maternity insurance fund in A83 N2 is less than 15 months income; A84 In the expenditure of maternity insurance fund, the proportion of maternity allowance is the largest; A85 suggests that J province improve the pooling level and uniformly collect the risk adjustment fund with the province as the unit.
13	Implementer	Maternity insurance was implemented in A86H city in 1995. The initial payment rate of enterprise employees was 0.5%, mainly including medical expenses and maternity allowance; A87 The maternity insurance fund of H city was managed by the Pension Insurance Office of H City from 1995 to 2002; A88 In 2002, H City decreed No. 161 to expand the scope of insured people, with a payment rate of 0.7% in urban areas and 1% in new areas; A89 The balance rate of maternity insurance fund in H city from 2002 to 2008 was $\geq \! 50\%$, and the fund has been in a sustainable state; A90 In 2008, the maternity insurance fund of H city added expenses for treatment of related complications and physical examination expenses.
14	Implementer	A91 At present, the balance rate of maternity insurance fund in H city is less than 50%. In 2015, the balance rate of maternity insurance fund in H City is approximately 10%, which has been continuously consuming the accumulated balance; A92 The non-coverage of maternity insurance in H city was extended to public institutions in 2010, and to Party and government offices in 2014; A93 In 2014, Jiangsu Province issued Decree No. 94, which unified the payment rate and payment treatment level of H city; The cost of maternity insurance for freelancers in the municipality of A94 H is covered by a share of the medical insurance fund; A95 In 2014, H city realized municipal pooling, and the risk adjustment fund, was set at 10% of the annual income; A96 H city currently pays approximately 1200 yuan for prenatal treatment and 4000 yuan to 5000 yuan for childbirth; A97 In 2015, the maternity insurance fund deficit of QH District in H city was 3 million yuan, mainly due to the increase of medical service costs and the large number of female employees in the district.

		Full Initial Coding List
No.	Type	Interview Content Coding
15	Implementer	A98 Generally, there is no problem that the maternity insurance fund in W city can maintain operation for 2–3 years under the current payment rate; A99 in 2008, maternity insurance began to distribute medical cards. The maternity allowance was initially issued to individuals, and began to be settled directly with the unit in 2005; A100 The medical cost of childbirth is an uncertain factor, especially in the treatment of complications, which will increase the expenditure of maternity insurance fund; A101 With the changes of the system, if the combined medical insurance and maternity insurance fund are successfully merged in the future, it is believed that the operation pressure of maternity insurance fund will be relieved.
16	Implementer	A102 C The maternity insurance fund of The City is in a current deficit and intends to adjust the payment rate; A103 Strengthen management, strengthening monitoring can promote scientific throttling; The city will also expand maternity insurance coverage, as freelancers currently only opt for pension and medical insurance.
17	Implementer	A105 To predict the sustainable development of maternity insurance fund, we should consider the change trend of revenue and expenditure of maternity insurance fund; A106 From the perspective of S city, the influencing factors of maternity insurance fund are not only payment rate; A107 From the operation status of maternity insurance fund in S City, the average annual salary affects the payment base; A108 The quality and fees of maternity insurance treatment items affect the level of maternity insurance treatment; At present, the treatment items of A109 maternity insurance mainly include the cost of family planning operation, nutrition subsidy, prenatal examination, hospital delivery, and maternity allowance, among which the maternity allowance is the major expenditure.
18	Developer	At present, the implementation of the combination of maternity insurance and medical insurance is only a pilot project. In the future, it is not possible to directly merge the system from the legal level. It should be merged from the management level first, and the types of maternity insurance should be retained. A111 National ministries and commissions believe that the management should be consolidated, insurance types retained, and treatment adjusted to reduce the management cost and improve the efficiency of maternity insurance.
19	Developer	A112 The merger of maternity insurance and medical insurance is now in the pilot stage. The following points should be done in the implementation of the merger in the future; A113 Unified insurance registration, that is, when participating in medical insurance, is regarded as simultaneous participation in maternity insurance; A114 Medical insurance fund and birth insurance fund unified collection and management, this point is important in the actual process of operation because the situation is not the same, the implementation is more difficult; A115 Harmonize the management of medical services, which is relatively easy and requires agreements with designated medical institutions; A116 Maternity insurance benefits should not be reduced, which is the cornerstone of the protection of women's rights; When compared with some other provinces, there are more one-time nutrition subsidies for maternity insurance treatment projects in A117 J Province; A118 Currently flexible employment personnel are not insured and there is no maternity allowance, which is inconsistent with the contents of Decree No. 94 of J Province. The coverage of maternity insurance should be further expanded in the future; A119 Unemployed women and unemployed male spouses are coverage blind spots.

		Full Initial Coding List
No.	Type	Interview Content Coding
20	Researcher	A120 Maternity insurance and medical insurance have different financing principles and paths, respectively, so it is difficult to merge directly; A121 There is a legal difference between maternity insurance and medical insurance, and the nature of maternity allowance and medical expenses is different, so whether it needs to be merged is a problem; After the merger of the A122 hypothesis, should the one-time nutrition benefit continue to exist?
21	Researcher	A123 J province has the lowest maternal mortality rate in the country; A124 However, the proportion of Cesarean sections in J province is increasing, approximately 50–80%, and the national average normal rate is approximately 26%; A125 In terms of insured population, the two are different, mainly affected by the number of insured and insured rate; A126 The fund raising composition of medical treatment insurance and birth insurance is different, medical treatment insurance is divided into unit and individual pay charges, two parts, birth insurance is unit direct pay.
22	Implementer	The maternity insurance benefits in A127 N1 city are 800 yuan more than last year for natural birth and approximately 4600 yuan for Cesarean section; A128 The fundraising principles of maternity insurance fund and medical insurance fund are different, medical insurance fund is settled with revenue, maternity insurance fund is settled with revenue; A129 Currently, maternity insurance fund and medical insurance fund are managed separately, kept separately, and paid separately; A130 N1 Maternity insurance and medical insurance coverage is inconsistent, maternity insurance does not cover retirees; A131 The individual and the unit shall pay part of the contribution for medical insurance, and the unit only needs to pay for maternity insurance; A132 The comprehensive two-child policy has impacted maternity insurance funds, and the combined implementation can greatly improve the sustainability of maternity insurance funds; A133 The treatment items of maternity insurance are different from medical insurance; A134 The size of the maternity insurance fund can be said to be very small when compared to the size of the medical insurance fund; A135 The annual per capita expenditure of the medical insurance fund is higher than that of the maternity insurance fund.
23	Implementer	A136 X city currently uses a single disease payment mechanism to guide the reduction of Cesarean section rates, which have been reduced from 70 to 80 to 50%, reducing the expenditure of maternity insurance funds; A137 Policy guidance is very important for the sustainable development of maternity insurance fund; A138 fully agrees with the combination of maternity insurance and medical insurance in the future, which is conducive to the implementation of the new national population policy; A139 The combination of the two insurance schemes will help to reverse the decline in the number of births, thus helping to alleviate the problem of an aging society.
24	Implementer	A140 City of Z's current maternity insurance pooling fund is in overspend operation state; In A141 Z, due to the pilot medical insurance policy, the budget balance of individual account of medical insurance fund is large. If maternity insurance and medical insurance in A142 city of Z are to be implemented together, it is necessary to scientifically adjust the account structure and ceiling line; A143 Although the state has introduced the two-child policy, individual fertility will not be ignored. Fertility will be affected by educational resources; A144 Housing price regulation strategies and housing price level also affect the willingness to have children.

Sustainability **2022**, 14, 2138 18 of 19

References

1. Sethi, N.; Jena, N.R.; Loganathan, N. Does financial development influence fertility rate in South Asian economies? An empirical insight. *Bus. Strat. Dev.* **2021**, *4*, 94–108. [CrossRef]

- 2. Pezzulo, C.; Nilsen, K.; Carioli, A.; Tejedor-Garavito, N.; Hanspal, S.E.; Hilber, T.; James, W.H.M.; Ruktanonchai, C.W.; Alegana, V.; Sorichetta, A. Geographical distribution of fertility rates in 70 low-income, lower-middle-income, and upper-middle-income countries, 2010–16: A subnational analysis of cross-sectional surveys. *Lancet Glob. Health.* 2021, 9, E802–E812. [CrossRef]
- 3. Zoeller, G.E.; Drew, B.L.; Schmidt, C.W.; Peterson, R.; Wilson, J.J. A paleodemographic assessment of mortality and fertility rates during the second demographic transition in rural central Indiana. *Am. J. Hum. Biol.* **2021**, *34*, e23571. [CrossRef] [PubMed]
- 4. Jakovljevic, M.M.; Netz, Y.; Buttigieg, S.C.; Adany, R.; Laaser, U.; Varjacic, M. Population aging and migration—History and UN forecasts in the EU-28 and its east and south near neighborhood—One century perspective 1950–2050. *Glob. Health* 2018, 14, 30. [CrossRef] [PubMed]
- 5. Eroğlu, K.; Koruk, F.; Koruk, I.; Çelik, K.; Güner, P.; Kiliçli, A. Women's reproductive behaviour and perspectives on fertility, and their modifying factors, in a Turkish province with a high fertility rate. *Eur. J. Contracept. Reprod. Health Care* **2021**, 26, 139–147. [CrossRef]
- 6. Segura-Sampedro, J.J. Foreplay, a selected strategy that might be able to increase fertility rates. *Med. Hypotheses* **2016**, *91*, 32–33. [CrossRef] [PubMed]
- 7. Gandasegui, V.D.; Miguel, B.E.-S.; Sanz, M.T. Back to the Future: A Sensitivity Analysis to Predict Future Fertility Rates Considering the Influence of Family Policies—The Cases of Spain and Norway. *Soc. Indic. Res.* **2021**, *154*, 943–968. [CrossRef]
- 8. Lass, A.; Lass, G. Is there a correlation between total fertility rate, utilization of assisted reproduction technology, and national wealth in Europe? *J. Med Econ.* **2021**, *24*, 536–539. [CrossRef]
- Hong, C.-H.; Gilbert, N. Cognitive Dissonance and Fertility Rates: A Comparative Analysis of Attitudes toward the Gender Division of Labour in East Asian and Western Industrial Societies. Soc. Policy Soc. 2021, 20, 44

 61. [CrossRef]
- 10. Mahmoodkhani, M.; Saboory, E.; Roshan-Milani, S.; Azizi, N.; Karimipour, M.; Rasmi, Y.; Gholinejad, Z. Pregestational stress attenuated fertility rate in dams and increased seizure susceptibility in offspring. *Epilepsy Behav.* **2018**, *79*, 174–179. [CrossRef]
- 11. Jia, N.; Dong, X.-Y.; Song, Y.-P. Paid Maternity Leave and Breastfeeding in Urban China. Fem. Econ. 2018, 24, 31–53. [CrossRef]
- 12. Zhang, X.T.; Zhou, L.L.; Antwi, H.A. The impact of China's latest population policy changes on maternity insurance—A case study in Jiangsu Province. *Int. J. Health Plan M* **2019**, *34*, E617–E633. [CrossRef]
- 13. Liu, T.; Sun, L. Maternity Insurance in China: Global Standards and Local Responses. Asian Women Win 2015, 31, 23–51. [CrossRef]
- 14. Huang, J.; Yuan, L.; Liang, H. Which Matters for Medical Utilization Equity under Universal Coverage: Insurance System, Region or SES. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4131. [CrossRef] [PubMed]
- 15. Antwi, H.A.; Zhou, L.; Xu, X.; Mustafa, T. A Comparative Analysis of Impact of Universal Two-Child Policy on Maternity Insurance Fund in Jiangsu Province and Guangxi Zhuang AR. *Healthcare* **2021**, *9*, 468. [CrossRef]
- 16. Chang, S.; Yang, W.; Deguchi, H. Care providers, access to care, and the Long-term Care Nursing Insurance in China: An agent-based simulation. *Soc. Sci. Med.* **2020**, 244, 112667. [CrossRef]
- 17. Chen, S.; Chen, Y.; Feng, Z.; Chen, X.; Wang, Z.; Zhu, J.; Jin, J.; Yao, Q.; Xiang, L.; Yao, L.; et al. Barriers of effective health insurance coverage for rural-to-urban migrant workers in China: A systematic review and policy gap analysis. *BMC Public Health* **2020**, 20, 1–16. [CrossRef]
- 18. Zang, W.J.; Zhao, Y.J. The Study of Chinese Maternity Insurance Issues. Adv. Educ Res. 2014, 49, 245–248.
- 19. Listyowardojo, T.A.; Yan, X.; Leyshon, S.; Ray-Sannerud, B.; Yu, X.Y.; Zheng, K.; Duan, T. A safety culture assessment by mixed methods at a public maternity and infant hospital in China. *J. Multidiscip. Health* **2017**, *10*, 253–262. [CrossRef]
- 20. Ke, Y. The Adjustments of the Maternity Insurance System in Consequence of Two-Child Policy in China. In Proceedings of the 2017 International Conference on Innovations in Economic Management and Social Science (IEMSS 2017), Hangzhou, China, 15–16 April 2017; Atlantis Press: Paris, France, 2017; Volume 29, pp. 818–820.
- 21. Chen, J. Consider fund balance as the blood pressure of the life of the system. China Health Insur. 2011, 30, 10–11. (In Chinese)
- 22. Shi, Y. Long-term equilibrium of the Fund: A review of the final project and workshop on "Equilibrium mechanisms and risk control of the Health Insurance Fund". *China Med. Insur.* **2012**, *8*, 30–31. (In Chinese)
- 23. Zhan, C.; Li, Y.; Lu, Z. Fund Balance Mechanism of the Integration Between the Maternity Insurance and Medical Insurance: Under the Policy of Universal Two-Child Family Plan. *Econ. Surv.* **2018**, *35*, 153–159. (In Chinese)
- 24. Zhang, L. Factors Influencing the Affordability of Social Health Insurance Funds and Evaluation. Ph.D. Thesis, Nanjing University, Nanjing, China, 2013.
- 25. An, N.; Zhou, L.L.; Zhang, X.J. Constructing the Evaluation Index System for the Implementation Effectiveness of the Combination of Maternity Insurance and Employee Basic Medical Insurance. *Chin. Health Econ.* **2019**, *38*, 29–32. (In Chinese)
- 26. Einarsdóttir, K. Changes in maximum parental leave payment in Iceland and total fertility rates. *Scand. J. Public Health* 2021. *online first.* [CrossRef]
- 27. Son, Y.J. Do childbirth grants increase the fertility rate? Policy impacts in South Korea. *Rev. Econ. Househ.* **2017**, *16*, 713–735. [CrossRef]
- 28. Xie, L.; Wang, H.W. Research on the Operation Module of Maternity Insurance Fund. In Proceedings of the 2012 International Conference on Management Innovation and Public Policy (Icmipp 2012), Chongqing, China, 11–14 November 2012; Volumes 1–6, pp. 2877–2882.

Sustainability **2022**, 14, 2138 19 of 19

29. Corbin, J.; Strauss, A. Grounded Theory Research—Procedures, Canons and Evaluative Criteria. *Z Soziol.* **1990**, *19*, 418–427. [CrossRef]

- 30. Kim, J.; Lee, J.; Lee, T. The Sustainable Success and Growth of Social Ventures: Their Internal and External Factors. *Sustainability* **2021**, *13*, 5005. [CrossRef]
- 31. Neyman, J. On the Two Different Aspects of the Representative Method: The Method of Stratified Sampling and the Method of Purposive Selection. *J. R. Stat. Soc.* **1934**, *97*, 558. [CrossRef]
- 32. Corbin, J.; Strauss, A. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory, 3rd ed.; Sage: Thousand Oaks, CA, USA, 2008. [CrossRef]
- 33. Huang, Y.; Han, S. Explaining social insurance participation: The importance of the social construction of target groups in China. *Policy Stud.* **2021**, *5*, 1–21. [CrossRef]
- 34. Lamnisos, D.; Giannakou, K.; Jakovljevic, M. (Michael) Demographic forecasting of population aging in Greece and Cyprus: One big challenge for the Mediterranean health and social system long-term sustainability. *Health Res. Policy Syst.* **2021**, *19*, 1–8. [CrossRef]
- 35. Clark, W.A.; Yi, D.; Zhang, X. Do House Prices Affect Fertility Behavior in China? An Empirical Examination. *Int. Reg. Sci. Rev.* **2020**, *43*, 423–449. [CrossRef]
- 36. Shi, Y.; Zhang, J. On high fertility rates in developing countries: Birth limits, birth taxes, or education subsidies? *J. Popul. Econ.* **2009**, 22, 603–640. [CrossRef]