Sexual and Reproductive Health Expenditures

In Sichuan And Fujian

Executive Summary





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China National Health and Development Research Center is a national think-tank providing technical consultancy to further strengthen health policy research and better accommodate the needs of health development and reform.

United Nations Population Fund (UNFPA) is an international development agency that delivers a world where every pregnancy is wanted, every child birth is safe, and every young person's potential is fulfilled.

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Background

Financing sexual and reproductive health (SRH) is one of the critical determinants which influence health outcomes. Creating an understanding of the sources and the manner in which financing takes place and identifying barriers that exclude vulnerable populations to accessing essential services is crucial in ascertaining the equitability and efficiency of the sector. It can guarantee strategic investment and guide evidence-based policy-making, particularly relevant considering the on-going reforms in China's health system.

A framework which monitors these financial flows was not available in the Chinese context. Therefore, this study was developed with the overall objective to establish an initial picture of SRH financing and develop a framework for tracking financial flows. Specific objectives of this study included:

- Identifying the kinds of SRH goods and services consumed, including preventive and curative care and governance and health system and financing administration, including hospitals and primary health care institutions
- Identifying which health care providers deliver these SRH goods and services
- Identifying which financing scheme(s) pay(s) for these SRH goods and services. Of particular interest were the government schemes, voluntary and compulsory insurance schemes and household out of pocket payments
- Identifying the inputs used in the process of provision of health care, for example labor, taxes and services, etc.
- Identifying the age (5-year age bracket), gender and diseases related to the goods and services consumed

This study was conducted jointly by the China National Health Development Research Center (CNHDRC) and the United Nations Population Fund (UNFPA). As the first of its kind in China, it was conducted on a provincial level, namely in Sichuan and Fujian (see areas of study below). It followed the standard National Health Account methodology developed by the OECD, Eurostat and WHO and was adapted to the local context and topic of interest.

Areas of study





Summary of Key Findings

Overall SRH expenditures

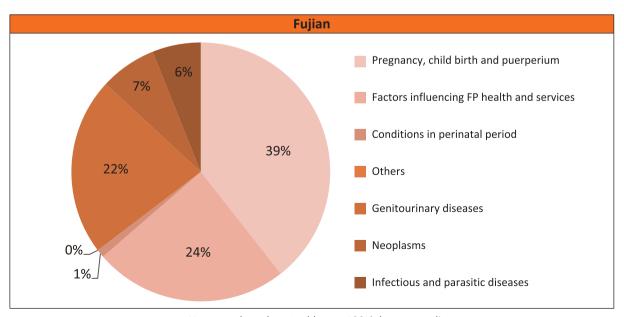
The total health expenditure in Fujian in 2014 amounted to 88,896 million RMB. Roughly 16% of this was spent on sexual and reproductive health (SRH). This is equivalent to 0.6% of the gross domestic product. In Sichuan, total health expenditure was equivalent to 185,751 million RMB, of which 13% was spent on SRH representing 0.8% of the province's gross domestic product.

	Unit	Fujian	Sichuan
Current health expenditure	million RMB	88,896	185,751
SRH expenditure	million RMB	14,008	24,001
As the share of current health expenditure	%	15.8	12.9
As the share of GDP	%	0.6	0.8

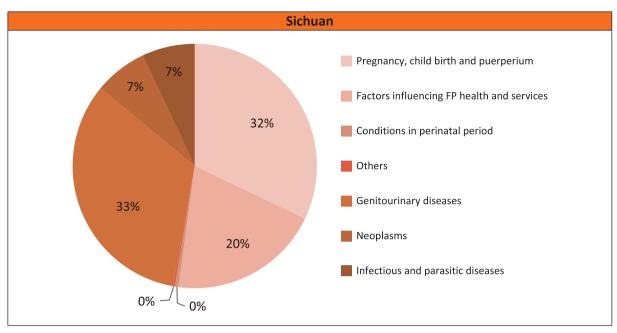
When considering per capita expenditure, about 370 RMB was spent on SRH in Fujian and 300 RMB in Sichuan. In comparison, per capita expenditure on health for these provinces was 2,580 RMB and 2,340 RMB respectively.

Expenditures by disease

When classifying the SRH expenditures by disease and related health problems (as detailed in annex 1), pregnancy, child birth and puerperium took up the largest share of expenditures in Fujian, with the latter totaling 5,528 million RMB or 39% of the total SRH expenditure. In comparison, the share of spending on pregnancy, child birth and puerperium in Sichuan was the second largest (32%), with 7,724 million RMB. The largest share of SRH spending in Sichuan was on diseases of the genitourinary system (7,964 million RMB or 33%) – larger than the share in Fujian where it numbered 22%. Besides this difference, the rest of the distribution by disease and related health problems followed a similar pattern.



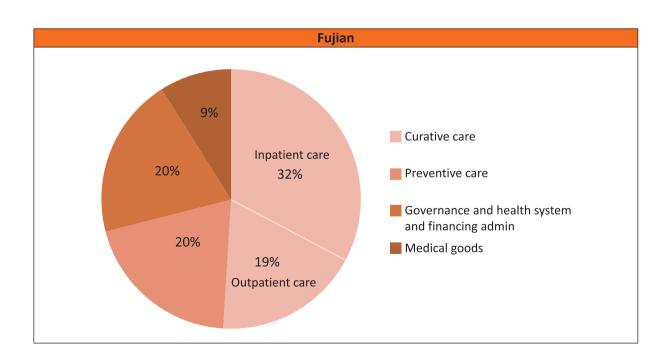
Note: numbers do not add up to 100% due to rounding

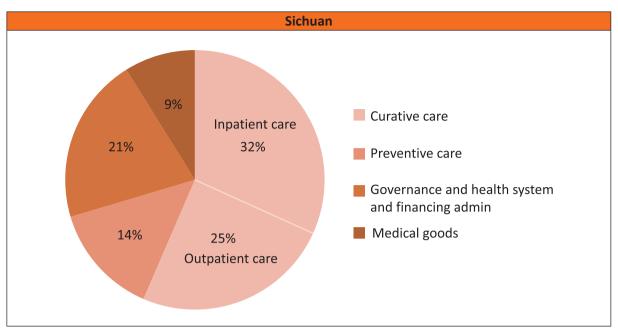


Note: numbers do not add up to 100% due to rounding

Expenditure by function

Making a comparison between the types of SRH goods and services paid for, curative care (including rehabilitative care) represents the largest share of the total SRH expenditure. Of the total expenditures on SRH in Fujian (14,008 million RMB) and Sichuan (24,001 million RMB), approximately 51% and 57% was spent on curative care. Within curative care, inpatient care accounts for the largest share in both provinces. Spending on preventive care stood at 20% and 14%. Ancillary services incurred were close to 0% and therefore not shown in the graphs.

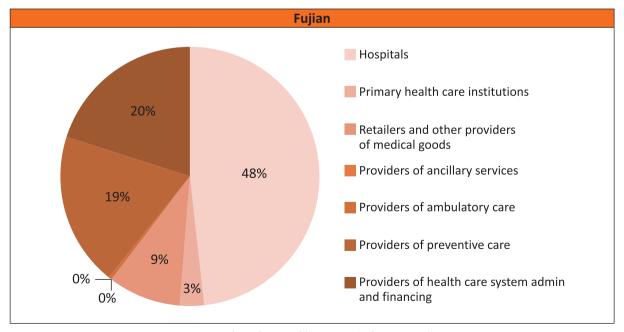




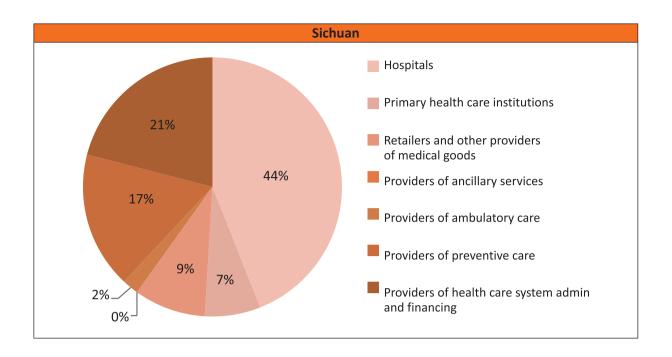
Note: numbers do not add up to 100% due to rounding

Expenditure by provider

On the health provider side, nearly half of the expenditures were made in hospitals: 6,723 million RMB in Fujian and 10,588 million RMB in Sichuan. The second and third largest SRH provider expenditures in Fujian and Sichuan were those of health care system administration and financing (around 20%) and preventive care (19% and 17%).



Note: numbers do not add up to 100% due to rounding



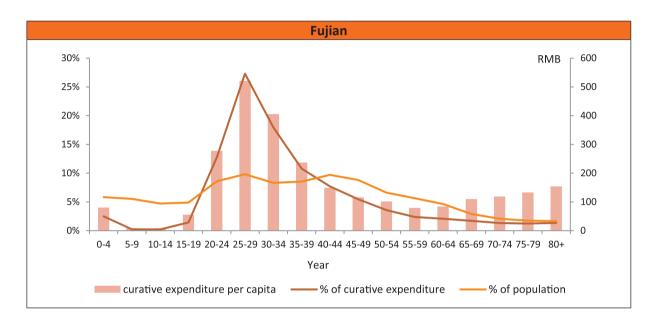
Expenditure by financing scheme

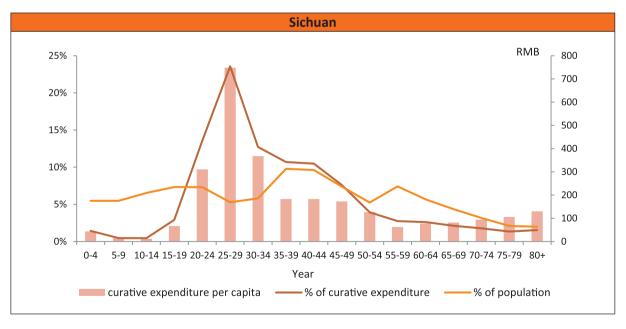
Results also indicate that, when disaggregating SRH expenditure by the main financing schemes, governments and households are those who finance the largest amount of SRH goods and services. They account for over 90% of the total expenditure, with shares being very similar with regards to government schemes (33-34%) and voluntary health care payment schemes (7%). Household out-of-pocket expenditure accounts for roughly 43% and 37% respectively.

	Million RMB		9	%
	FUJ	SIC	FUJ	SIC
Government schemes and compulsory contributory health care financing schemes	6,871	13,360	49.1	55.7
Government schemes	4,638	8,206	33.1	34.2
Compulsory contributory health care financing schemes	2,234	5,154	16.0	21.5
Voluntary health care payment schemes (other than OOP)	1,087	1,698	7.8	7.1
Voluntary health insurance schemes	223	368	1.6	1.6
NPISH financing scheme	0	2	0.0	0.0
Enterprise financing schemes	864	1,328	6.2	5.5
Household out-of-pocket	6,046	8,943	43.2	37.3
Rest of the world financing schemes	4	0	0.0	0.0
Philanthropy/international NGOs schemes	4	0	0.0	0.0

Curative care expenditure by age

The largest share of expenditure on curative care in both provinces was incurred by people aged 20-34 years. More specifically, the 25-29 years age group had the largest spending in Fujian (27%) and Sichuan (24%). On the contrary, younger and older age groups bear a much smaller share of the total SRH expenditure. Likewise, seen from a per capita expenditure basis, expenditure is highest for beneficiaries aged 25 to 29, and from then on decreases almost constantly until the 55-59 years cohort. From 60-64 years and above, per capita expenditures gradually increases again.





Generally speaking, the share of household out-of-pocket payment is higher for younger population groups. In particular for all ages from 0 to 39 years, the share of OOP payments for both provinces is higher than 50%, whereas from 45 years and over it is always below. For the age groups of 0-4 years and 15-19 years, the share of OOP payments was the highest. Correspondingly, government and compulsory contributory schemes seems to bear the largest shares for age groups that tend to be older. Given that most of SRH expenditure is accounted for by beneficiaries aged 15 to 44 years, this finding may indicate a disproportional burden of SRH expenditure by younger population groups in both provinces.

A closer look at young people aged 10 to 24 years shows this clearer, as expenditures on young people is much higher compared to the overall population. An estimated 71% of curative care expenditure for young people is shouldered by household OOPs payments in Fujian, and 61% in Sichuan. Governmental schemes and compulsory contributory health insurance schemes financed about one third, much lower than for older ages.

Curative care expenditure by specific SRH diseases and health related problems

When considering specific diseases and health related problems, in Fujian expenditures on pregnancy, child birth and puerperium were highest, with the main components including assisted delivery (including caesarean section) (12% of all curative care expenditure) and single spontaneous delivery (11%). Meanwhile, for diseases of the genitourinary system, most of it was spent on curative care for non-inflammatory disorders of the female genital tract (10%), inflammatory diseases of female pelvic organs (9%) and diseases of male genital organs (6%). In Sichuan, the largest expenditures were for diseases of the genitourinary system such as inflammatory diseases of the female pelvic organs and non-inflammatory disorders of the female genital tract.

Diseases		Million RMB		%		Rank	
	FUJ	SIC	FUJ	SIC	FUJ	SIC	
Infectious and parasitic diseases	457	875	6.3	6.4	-	-	
HIV	31.8	60.1	0.4	0.4	22	22	
Chlamydia	1.5	2.0	0.0	0.0	36	34	
Syphilis	6.9	28.9	0.1	0.2	30	26	
Gonorrhea	1.9	13.6	0.0	0.1	34	28	
Herpes	0.6	1.5	0.0	0.0	38	35	
Other STDs	10	51.9	0.1	0.4	26	23	
Hepatitis	403.9	717.3	5.6	5.3	7	7	
Pregnancy, childbirth and puerperium	3,698	5,450	51	39.9	-	-	
Ectopic pregnancy	144.9	318.2	2.0	2.3	15	13	
Molar pregnancy	4.7	8.7	0.1	0.1	31	30	
Other abnormal products of conception; abortion; and complications following abortion, ectopic and molar pregnancy	381.6	570.9	5.3	4.2	9	9	

Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium; other maternal disorders related to pregnancy Certain conditions originating in the perinatal period 401.7 741.2 5.5 5.4 8 6 6 Complication of labour and delivery 165.8 583.3 2.3 4.3 12 8 8 8 8 8 8 8 8 8							
Period AUI.	disorders in pregnancy, childbirth and the puerperium; other maternal disorders related	286.4	378.1	4	2.8	11	12
Single spontaneous delivery		401.7	741.2	5.5	5.4	8	6
Assisted delivery, including caesarean section Complications predominantly related to the puerperium Other obstetric conditions, n.e.c Other obstetric conditions, n.e.c Pregnancy: supervision, antenatal and postpartum care Mother-child perinatal conditions Fetus and newborn affected by maternal factors and by complications pregnancy, labor, and delivery Disorders related to length of gestation and fetal growth Neoplasms 728 Malignant neoplasm of cervix uteri Malignant neoplasm of prostate Benign neoplasm of urinary organs Benign neoplasm of urinary organs Benign neoplasm of male genital organs Benign neoplasm of male genital organs Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs Diseases of the genitourinary system Line 13.0 10.	Complication of labour and delivery	165.8	583.3	2.3	4.3	12	8
Complications predominantly related to the puerperium	Single spontaneous delivery	812.8	569.8	11.2	4.2	2	10
Discriperium 13.0 30.8 0.2 0.2 25 25 25 25 25 25 25	Assisted delivery, including caesarean section	865.2	766.3	11.9	5.6	1	5
Pregnancy: supervision, antenatal and postpartum care 592.7 1309.3 8.2 9.6 5 3 Mother-child perinatal conditions 165 110 2.3 0.8 - - Fetus and newborn affected by maternal factors and by complications pregnancy, labor, and delivery 3.5 7.3 0.1 0.0 32 31 Disorders related to length of gestation and fetal growth 161.3 103.2 2.2 0.8 13 21 Neoplasms 728 1,323 10.0 9.7 - - Malignant neoplasm of cervix uteri 88.6 278.6 1.2 2.0 19 14 Malignant neoplasm of breast 287.6 393.6 4 2.9 10 11 Malignant neoplasm of prostate 107.2 154.8 1.5 1.1 18 20 Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs 129.0 239.3 1.8 1.8 17 15 Benign neoplasm of male genital organs 7.4 2.1 0.1 </td <td></td> <td>13.0</td> <td>30.8</td> <td>0.2</td> <td>0.2</td> <td>25</td> <td>25</td>		13.0	30.8	0.2	0.2	25	25
Mother-child perinatal conditions 165 110 2.3 0.8 - - Fetus and newborn affected by maternal factors and by complications pregnancy, labor, and delivery 3.5 7.3 0.1 0.0 32 31 Neoplasms 728 1,323 10.0 9.7 - - Malignant neoplasm of cervix uteri 88.6 278.6 1.2 2.0 19 14 Malignant neoplasm of breast 287.6 393.6 4 2.9 10 11 Malignant neoplasm of breast 107.2 154.8 1.5 1.1 18 20 Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs 129.0 239.3 1.8 1.8 17 15 Benign neoplasm of male genital organs 7.4 2.1 0.1 0.0 29 33 Other malignant tumors for the female and male genital organs 60.8 230.9 0.8 1.7 20 16 Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs 38.5 <td>Other obstetric conditions, n.e.c</td> <td>29.5</td> <td>173.1</td> <td>0.4</td> <td>1.3</td> <td>23</td> <td>17</td>	Other obstetric conditions, n.e.c	29.5	173.1	0.4	1.3	23	17
Fetus and newborn affected by maternal factors and by complications pregnancy, labor, and delivery 3.5 7.3 0.1 0.0 32 31		592.7	1309.3	8.2	9.6	5	3
Sections and by complications pregnancy, labor, and delivery Section 2 Section 3 S	Mother-child perinatal conditions	165	110	2.3	0.8	-	-
Neoplasms 728 1,323 10.0 9.7 - - Malignant neoplasm of cervix uteri 88.6 278.6 1.2 2.0 19 14 Malignant neoplasm of breast 287.6 393.6 4 2.9 10 11 Malignant neoplasm of breast 107.2 154.8 1.5 1.1 18 20 Benign neoplasm of urinary organs 9.3 5.7 0.1 0.0 27 32 Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs 129.0 239.3 1.8 1.8 17 15 Benign neoplasm of male genital organs 7.4 2.1 0.1 0.0 29 33 Other malignant tumors for the female and male genital organs 60.8 230.9 0.8 1.7 20 16 Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs 38.5 19 0.5 0.1 21 27 Diseases of the genitourinary system 2,071 5,875 28.6 <td< td=""><td>factors and by complications pregnancy,</td><td>3.5</td><td>7.3</td><td>0.1</td><td>0.0</td><td>32</td><td>31</td></td<>	factors and by complications pregnancy,	3.5	7.3	0.1	0.0	32	31
Malignant neoplasm of cervix uteri 88.6 278.6 1.2 2.0 19 14 Malignant neoplasm of breast 287.6 393.6 4 2.9 10 11 Malignant neoplasm of prostate 107.2 154.8 1.5 1.1 18 20 Benign neoplasm of urinary organs 9.3 5.7 0.1 0.0 27 32 Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs 129.0 239.3 1.8 1.8 17 15 Benign neoplasm of male genital organs 7.4 2.1 0.1 0.0 29 33 Other malignant tumors for the female and male genital organs 60.8 230.9 0.8 1.7 20 16 Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs 38.5 19 0.5 0.1 21 27 Diseases of the genitourinary system 2,071 5,875 28.6 43.1 - - Endometriosis 1.2 0.0 0.0 0.0 37 38		161.3	103.2	2.2	0.8	13	21
Malignant neoplasm of breast 287.6 393.6 4 2.9 10 11 Malignant neoplasm of prostate 107.2 154.8 1.5 1.1 18 20 Benign neoplasm of urinary organs 9.3 5.7 0.1 0.0 27 32 Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs 129.0 239.3 1.8 1.8 17 15 Benign neoplasm of male genital organs 7.4 2.1 0.1 0.0 29 33 Other malignant tumors for the female and male genital organs 60.8 230.9 0.8 1.7 20 16 Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs 38.5 19 0.5 0.1 21 27 Diseases of the genitourinary system 2,071 5,875 28.6 43.1 - - Endometriosis 1.2 0.0 0.0 0.0 37 38	Neoplasms	728	1,323	10.0	9.7	-	-
Malignant neoplasm of prostate 107.2 154.8 1.5 1.1 18 20 Benign neoplasm of urinary organs 9.3 5.7 0.1 0.0 27 32 Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs 129.0 239.3 1.8 1.8 17 15 Benign neoplasm of male genital organs 7.4 2.1 0.1 0.0 29 33 Other malignant tumors for the female and male genital organs 60.8 230.9 0.8 1.7 20 16 Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs 38.5 19 0.5 0.1 21 27 Diseases of the genitourinary system 2,071 5,875 28.6 43.1 - - Endometriosis 1.2 0.0 0.0 0.0 37 38	Malignant neoplasm of cervix uteri	88.6	278.6	1.2	2.0	19	14
Benign neoplasm of urinary organs Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs Benign neoplasm of male genital organs Benign neoplasm of male genital organs Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs Diseases of the genitourinary system Endometriosis 9.3 5.7 0.1 0.0 239.3 1.8 1.8 1.7 15 15 15 15 15 15 15 15 15 1	Malignant neoplasm of breast	287.6	393.6	4	2.9	10	11
Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs Benign neoplasm of male genital organs Benign neoplasm of male genital organs Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs Diseases of the genitourinary system Endometriosis 129.0 239.3 1.8 1.8 1.7 0.0 29 33 60.8 230.9 0.8 1.7 20 16 27 27 27 27 27 27 28.6 43.1 - Endometriosis	Malignant neoplasm of prostate	107.2	154.8	1.5	1.1	18	20
neoplasms of uterus, ovary and other unspecified female genital organs Benign neoplasm of male genital organs Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs Diseases of the genitourinary system 129.0 239.3 1.8 1.8 1.8 17 15 0.0 0.1 0.0 29 33 0.8 1.7 20 16 1.7 20 16 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8	Benign neoplasm of urinary organs	9.3	5.7	0.1	0.0	27	32
Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs Diseases of the genitourinary system Endometriosis 230.9 0.8 1.7 20 16 27 27 27 27 27 27 27 28.6 43.1 - Endometriosis	neoplasms of uterus, ovary and other	129.0	239.3	1.8	1.8	17	15
male genital organs 60.8 230.9 0.8 1.7 20 16 Breast melanoma, carcinoma in situ of breast, cervix uteri and other unspecified genital organs 38.5 19 0.5 0.1 21 27 Diseases of the genitourinary system 2,071 5,875 28.6 43.1 - - Endometriosis 1.2 0.0 0.0 0.0 37 38	Benign neoplasm of male genital organs	7.4	2.1	0.1	0.0	29	33
cervix uteri and other unspecified genital organs 38.5 19 0.5 0.1 21 27 Diseases of the genitourinary system 2,071 5,875 28.6 43.1 - - Endometriosis 1.2 0.0 0.0 0.0 37 38	<u> </u>	60.8	230.9	0.8	1.7	20	16
Endometriosis 1.2 0.0 0.0 37 38	cervix uteri and other unspecified genital	38.5	19	0.5	0.1	21	27
	Diseases of the genitourinary system	2,071	5,875	28.6	43.1	-	-
Diseases of male genital organs 406.5 994.9 5.6 7.3 6 4	Endometriosis	1.2	0.0	0.0	0.0	37	38
Diseases of finale gentral organs 400.5 954.5 5.0 7.5 0 4	Diseases of male genital organs	406.5	994.9	5.6	7.3	6	4
Diseases of breast 147.8 172.6 2.0 1.3 14 18	Diseases of breast	147.8	172.6	2.0	1.3	14	18
Inflammatory diseases of female pelvic organs 667.7 2897.1 9.2 21.2 4 1		667.7	2897.1	9.2	21.2	4	1

Non-inflammatory disorders of female genital tract	696.5	1608.1	9.6	11.7	3	2
Other disorders of genitourinary tract	17.9	32.0	0.3	0.2	24	24
Male and female infertility, habitual aborter and complications associated with artificial fertilization	133.6	170.6	1.8	1.3	16	19
Others	9	11	0.1	0.1	-	-
Sexual dysfunction, not caused by organic disorder or disease, etc.	7.1	10.5	0.1	0.1	28	29
Sexual assault by bodily force, other maltreatment and sequale of assault	1.9	0.0	0.0	0.0	33	36
Counselling related to sexual attitude, behavior and orientation	-	0.0	-	0.0	-	37

Discussion

A key reason for conducting this study was to elucidate how sexual and reproductive health (SRH) is financed in the provinces of Sichuan and Fujian. The overall finding shows that of the total health expenditure, an estimated 16% in Fujian and 13% in Sichuan was spent on SRH in 2014. Though direct comparison with other studies is difficult due to different scopes and sample sizes (subject to data availability), it does allow one to make a rough comparison. In Kenya for example, the expenditure on reproductive health represented 13.8% of total health expenditure¹. In Georgia, total spending on reproductive health ranged around 11-12% of national health spending². Both countries show very similar results to this study.

An important finding of this study is that households are often the main financial contributors to SRH. Household out-of-pocket (OOP) payments for SRH accounted for 43% in Fujian and 37% in Sichuan. This is slightly lower than the OOP for total health expenditure in those provinces, which stood at 48% and 41% respectively but higher than the national average of 32%. Whilst different definitions exist, some experts consider spending to be catastrophic when a household contributes more than 40% of their income to the health system, after their subsistence needs have been met³. High OOP payments are concerning for multiple reasons, including barriers to accessing care, delayed care seeking and impoverishment. The inability to work due to an illness can further ameliorate a household's financial situation⁴. Whilst the share of catastrophic expenditures cannot be obtained from our results, the results do imply that OOP payments for SRH are considerate and that protecting households, particularly the most vulnerable ones, requires further attention. Obtaining detailed and annual household data on OOP expenditures on SRH is an essential first step to be able to establish the true burden on households and whether the introduction of social protection programmes reduce such a burden. A limitation to our findings on OOP payments for SRH is that data was not collected via a household survey, but were derived from subtracting all government and compulsory contributory, voluntary, and rest of the world financing schemes from the total expenditure on SRH. The remainder is considered to be the share of household contributions for SRH. Whilst conducting a household survey would have been ideal, time and budgetary constraints made this impossible. Since data was collected on a case-by-case basis however, it is believed that the OOP figures represent a fairly accurate picture.

Expenditure on curative care (including rehabilitative care) was the dominant component of SRH expenditures in Fujian and Sichuan, contributing 51% and 57% respectively. It was commonly paid for by households, 60% of the total was contributed by households in Fujian and 54% in Sichuan. Payments made by households on SRH curative care were higher for young ages. In Fujian, up to 80%

^{1.} NIDI & APHRC (2013). Reproductive Health and Family Planning Financing in Kenya: A Mapping of the Resource Flows. Retrieved from http://aphrc.org/wp-content/uploads/2013/12/Reproductive-health-and-family-planning-financing-in-Kenya.-A-mapping-of-the-resource-flows.pdf

^{2.} United States Agency for International Development (2005). National Health Accounts: Reproductive Health Sub-analysis for Georgia 2001-2003

^{3.} Xu, K., Evans, D.B., Kawabata, K., Zeramdini, R., Klavus, J. & Murray, C.J.L. (2003). Household catastrophic health expenditure: a multicountry analysis. The Lancet, 111-117.

^{4.} Leive, A. & Xu, K. (2008). Coping with out-of-pocket payments: empirical evidence from 15 African countries. Bulletin of the World Health Organization, 817-908.

of SRH expenditures on 15-19 year olds were paid for by households, compared to 68% in Sichuan. As age increases, the share paid by households decreases and is overtaken by government and compulsory contributory health insurance schemes. This can be due to the fact that they are more likely to be employed and thus more likely to be covered by insurance via their employer. In addition, it could be due to the fact that those over the age of 60 who are unemployed and have low incomes receive subsidies from the government according to the Elderly Rights' Interests and Protection Act which took effect in July 2013 (National People's Congress Standing Committee 30th Session, 2012). Expenditure by households on SRH curative care was highest for females in their teens and twenties and was mainly attributable to spending on pregnancy, childbirth and puerperium and diseases of the genitourinary system. Considering that many topics related to SRH are particularly prevailing in younger age groups, this finding suggests however that the government needs to step in more to cover SRH expenditures for young people in order to decrease the OOP payments and subsequent burden on households. Having adequate insurance coverage in place is key to addressing this, though further household level research to gain insight into OOP payments on SRH is needed.

Furthermore, findings indicate that a great share of curative care was spent in hospitals: 79% in Fujian and 71% in Sichuan. The rest of curative care expenditures were made by providers of preventive care⁵ and primary health care institutions. Due to the fact that the health care system in China is largely a hospital-based delivery system run by the Ministry of Health and local governments, supplemented by rural village doctors and grassroots providers, this figure is hardly surprising⁶. Expenditures on SRH preventive care stood at 2,748 million RMB in Fujian and 3,246 million RMB in Sichuan, equivalent to 20% and 14% of the total SRH expenditure. This finding supports the lack of resource allocation to health prevention on SRH which is worth further attention. Much of the coverage of the basic medical insurance system focuses upon curative care⁷. Increased prioritization on health prevention has already been recognized in the Healthy China 2020 strategy developed by the formal Minister of Health, and the results in this study further reiterate the imperativeness of such action⁸.

A recent study presented by the Department of Maternal and Child Health (MCH) at Peking University⁹ assessed the distribution of maternal and child health care workers in different medical and health care institutions. Results indicated that only 5% of MCH care workers were at family planning service stations, with 49% working in hospitals and 27% in MCH institutions. Our study indicates that the majority of SRH goods and services related to family planning (the function being 'factors influencing health status and contact with health services related to family planning'), about 92% in Fujian and 80% in Sichuan, was spent on Governance and health system and financing administration, suggesting significant costs related to bureaucracy. This finding may act as an entry point for introducing the idea that integrating services or departments can save money in the long run. Although the merger of the Ministry of Health and the National Population and Family Planning

^{5.} As mentioned previously, the classification of providers is made considering their main activity, but they can also be responsible for other functions. For example, a preventive care provider mainly provides preventive care service provision, but can also provide curative care.

^{6.} Eggleston, K. (2012). Health care for 1.3 Billion: an overview of China's health system. Asia Health Policy Program working paper #28

^{7.} CPC Central Committee and State Council on Deepening the Health Care Reform (2009). China Medical Insurance. http://www.zgylbx.com/kllcxztfnew20759 1/

^{8.} Ministry of Health (2012). Healthy China 2020 Strategy Report. 17 August 2012. Retrieved from http://www.moh.gov.cn/wsb/pzcjd/201208/55651.shtml

^{9.} Lin, A. (2016). China's Human Resources for Maternal and Child Health: a national sampling survey. Conference booklet, Conference on Maternal Mortality Reduction in China: a Contribution to the World, Beijing, China.

Commission was introduced at the national level in 2013, as our study covers 2014 data it is likely that the departments of health and family planning at the sub-national study sites were not fully merged yet. Further promoting and integrating these departments (at sub-national level) as well as their services could save administrative costs in the long-run.

Furthermore, it is a surprising finding that curative expenditures on diseases of the genitourinary system, particularly inflammatory diseases of female pelvic organs and non-inflammatory disorders of female genital tract, rank among the highest in SRH expenditures in both provinces. Data on incidence, prevalence or the burden of disease was not available for Fujian and Sichuan, making it difficult to put these expenditures into context. Sexually transmitted diseases such as chlamydia and gonorrhea are important preventable causes of female pelvic organ diseases, such as pelvic inflammatory disease. Expenditure on prevention of infectious and parasitic diseases (including STDs) and genitourinary disease was very low however. For the former, about 238 million RMB was spent and for the latter 39 million RMB, representing 8.7% and 1.4% of the total expenditure on prevention. Unfortunately, disaggregated data on preventive care expenditures, such as for gonorrhea or chlamydia, was not available. When comparing the overall preventive expenditures with curative care expenditures though, it shows that curing diseases is a much greater priority. Expenditure on curing infectious and parasitic diseases stood at 456.6 million RMB in Fujian and 875.2 million RMB in Sichuan. For genitourinary diseases curative expenditure was 2,072.6 million RMB and 5,875.3 million RMB in Fujian and Sichuan. This means that double the amount of money is spent on curing infectious and parasitic diseases compared to preventing them. In addition, it shows that spending on preventing genitourinary diseases is minimal compared to spending on curing them, with the latter more than 10 times the amount. Since these have a significant impact on one's sexual and reproductive health, increasing investment in prevention should be closely considered.

Finally, when considering expenditures on sexually transmitted diseases (STD) in this study, it shows that they are limitedly covered by government schemes and mostly paid for by households and compulsory contributory health insurance. For chlamydia, households paid 64% in Fujian and 44% in Sichuan whilst households covered approximately 91% and 80% of the expenditures on gonorrhea. For syphilis, household payments covered 61% and 67% in Fujian and Sichuan. Similar patterns can be seen for other STDs. Considering that syphilis ranks among the top five notifiable diseases in China and that gonorrhea and chlamydia are causes of infertility, these deserve more attention from government financing schemes¹⁰. There is a need for further research on this topic however, as well as linking SRH expenditures to the burden of disease and having disaggregated figures for preventive care expenditures, in order to map the way forward.

^{10.} National Health and Family Planning Commission (2016). 24 June 2016. Retrieved from http://www.moh.gov.cn/zhuzhan/gjjl/201605/b4 6923360d7d40aa851fa7e967ac2292.shtml

Conclusion

This study produced an initial picture of the financial flows of SRH in Fujian and Sichuan with some interesting results. Not only is it clear now how much is spent, by whom and on which SRH services, knowing that households are bearing a significant burden has important policy implications. Tracking the annual changes in these expenditures will allow these to be allocated more equitably, efficiently and better prioritized. More detailed information will be needed however to be able to compare the SRH expenditures with policies in this area, and to be able to establish whether these are effective. In addition, the study identified important data gaps and regular monitoring and health information systems are needed which can produce disaggregated data. Over time, efforts should be made to institutionalize the production of similar SRH Accounts and to be able to link it with other subaccounts and the overall national health accounts, in order to produce a complete and detailed picture of spending on health in China. With many reforms currently taking place in China's health system, evidence-based assessments which reflect the costs and benefits of such reforms will be crucial in guiding future health expenditures and ensuring better health for all.

Recommendations

Efforts should be made to increase government spending on the prevention of SRH diseases and health related problems

- Expenditures on curing diseases of the genitourinary system, particularly inflammatory diseases of female pelvic organs and non-inflammatory disorders of female genital tract, ranked among the highest in SRH expenditures in both provinces. Sexually transmitted diseases such as chlamydia and gonorrhea are important preventable causes of pelvic inflammatory disease but limited funding is allocated to these, particularly by the government. Much of the curative care expenditure on STDs and genitourinary diseases could be avoided if adequate investment in prevention takes place.
- Households are the ones paying the majority of the expenditures on prevention. Mostly relying on households is often considered ineffective when it comes to health prevention as the importance of such individual action is often not understood or seemed overrated, thus the service is delayed or not sought. The latter increases health care costs and can reduce productivity. Therefore, it is important that structures are in place which encourage individuals to seek testing or screening and are encouraged by the government as such. Though further research is required to fully understand the reasoning behind the high expenditures on genitourinary diseases, this result gives an important insight into the current state and encourages further investment in preventive health care to ensure policies and programs are cost-effective, reduce health care costs and improve productivity.

Further efforts should be made to decrease the burden on households, particularly for expenditures covering younger age groups

- Overall, this study showed that OOP payments for SRH stood at 43% in Fujian and 37% in Sichuan.
 When comparing this to the catastrophic health expenditure cap of 40% of household income spent on health, as considered by some experts, SRH expenditures are relatively high. Further attention will need to be paid to reductions in OOP SRH spending by considering alternative financing schemes, such as government or insurance schemes.
- This study reveals that household OOP payments is higher for younger ages. Specifically, expenditure by households on SRH curative care was highest for females in their teens and twenties and was mainly attributable to spending on pregnancy, childbirth and puerperium and diseases of the genitourinary system. Whether this is due to higher utilization rates or a lower insurance coverage remains an important point of consideration. Spending on SRH curative care for older ages was more financed by government schemes rather than OOP payments. Reducing OOP payments for younger age groups will play a key role in making SRH services more accessible to this population and fulfilling their needs. Therefore, close consideration should be made as to which diseases or health related problems are commonly faced by young people and can be covered by non-household schemes instead.

Regular, more detailed monitoring of SRH health financing is essential in order to invest where most needed

- National health accounts (NHA) are produced on a yearly basis in China which benefits from a well-established data and information system. SRH accounts need more demanding data than NHA however, and there is currently no established system in place to produce these. This makes it difficult to monitor financial flows for SRH services in China on a regular basis and identify the gaps between spending and the financial resources required. Gaining insight on this is crucial in formulating evidence-based policy and achieving progress towards universal and rights-based access to sexual and reproductive health. Hence, in China, an information system on SRH should be established, especially considering the many deepening health care reforms and new policies introduced.
- Several adjustments need to be made to the current methodology of this study so as to ensure optimal data collection. Firstly, besides a quantitative approach, qualitative methods such as key informant interviews will need to be conducted in further detail order to fill data gaps. Secondly, household surveys should be conducted so that detailed information can be collected in order to more specifically guide the needs and inputs at the household level, so as to subsequently decrease the financial burden currently present on households. Finally, more in depth research will be needed at the provider level so as to ascertain the sample's representativeness.

For a more elaborate version of this study on sexual and reproductive health expenditures in Sichuan and Fujian, kindly refer to our website: www.unfpa.cn

Annex 1. Diseases and Health Related Problems (ICD-10) include	led in Study
Categories	ICD-10 Code
Infectious and parasitic diseases	
HIV	B20-B24
Chlamydia	A55-A56
Syphilis	A50-A53
Gonorrhea	A54
Herpes	A60
Other STDs	A57-59, A63-A64
Hepatitis	B15-B19
Pregnancy, childbirth and puerperium	
Ectopic pregnancy	000
Molar pregnancy	001
Other abnormal products of conception; abortion; and complications following abortion, ectopic and molar pregnancy	002-008
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth	010-016, 020-029
and the puerperium; other maternal disorders related to pregnancy	(excluding O15)
Eclampsia	O15
Maternal care related to the fetus and amniotic cavity and possible delivery problems	030-048
Complication of labour and delivery	060-075
Single spontaneous delivery	O80
Assisted delivery, including caesarean section	081-084
Complications predominantly related to the puerperium	085-092
Other obstetric conditions, n.e.c.	094-099
Pregnancy: supervision, antenatal and postpartum care	Z32-Z39
Mother-child perinatal conditions	
Fetus and newborn affected by maternal factors and by complications of pregnancy, labor, and delivery	P00-P04
Disorders related to length of gestation and fetal growth	P05-P08
Factors influencing health status and contact with health services (related	
to family planning)	
Contraceptive management	Z30
Procreative management	Z31
Problems related to unwanted pregnancy or multiparity	Z64.0, Z64.1
Neoplasms	
Malignant neoplasm of cervix uteri	C53
Malignant neoplasm of breast	C50
Malignant neoplasm of prostate	C61

Benign neoplasm of breast, other benign neoplasms of uterus, ovary and other unspecified female genital organs Benign neoplasm of male genital organs D29 Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast (skin of trunk), cervix uteri and other unspecified genital organs D03.554, D04.553, D05-D07 Diseases of the genitourinary system Endometriosis N80 Dysplasia of cervix uteri Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract Nale and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental		
other unspecified female genital organs Benign neoplasm of male genital organs D29 Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast (skin of trunk), cervix uteri and tother unspecified genital organs D33.554, D04.553, D05-D07 Diseases of the genitourinary system Endometriosis N80 Dysplasia of cervix uteri Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract Nale and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Benign neoplasm of urinary organs	D30
Other malignant tumors for the female and male genital organs Breast melanoma, carcinoma in situ of breast (skin of trunk), cervix uteri and other unspecified genital organs D03.554, D04.553, D05-D07 Diseases of the genitourinary system Endometriosis N80 Dysplasia of cervix uteri N87 Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental		D24, D26-D28
Other malignant tumors for the female and male genital organs C62, C63 Breast melanoma, carcinoma in situ of breast (skin of trunk), cervix uteri and other unspecified genital organs D05-D07 Diseases of the genitourinary system Endometriosis N80 Dysplasia of cervix uteri N87 Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast N60-N64 Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Benign neoplasm of male genital organs	D29
and other unspecified genital organs Diseases of the genitourinary system Endometriosis N80 Dysplasia of cervix uteri N87 Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast N60-N64 Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Other malignant tumors for the female and male genital organs	C51-C52, C54-C58, C60, C62, C63
Endometriosis N80 Dysplasia of cervix uteri N87 Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast N60-N64 Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization N46, N96, N97, N98 Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	· · · · · · · · · · · · · · · · · · ·	
Dysplasia of cervix uteri Diseases of male genital organs N40-N51 (excl. N46) Disorders of breast N60-N64 Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Diseases of the genitourinary system	
Diseases of male genital organs Disorders of breast N60-N64 Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Endometriosis	N80
Disorders of breast Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Dysplasia of cervix uteri	N87
Inflammatory diseases of female pelvic organs N70-N77 Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract N99 Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Diseases of male genital organs	N40-N51 (excl. N46)
Non-inflammatory disorders of female genital tract N80-N95 (excl. N80) Other disorders of genitourinary tract Name and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Disorders of breast	N60-N64
Other disorders of genitourinary tract Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Inflammatory diseases of female pelvic organs	N70-N77
Male and female infertility, habitual aborter and complications associated with artificial fertilization Injuries Mistreatment syndrome Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Non-inflammatory disorders of female genital tract	N80-N95 (excl. N80)
with artificial fertilization Injuries Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Other disorders of genitourinary tract	N99
Mistreatment syndrome T74.0, T74.1, T74.2, T74.3, T74.8, T74.9 Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental		N46, N96, N97, N98
Others Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Injuries	
Sexual dysfunction, not caused by organic disorder or disease; Mild mental	Mistreatment syndrome	
	Others	
mental and behavioral disorders associated with the puerperium, n.e.c., puerperium mental disorder, unspecified	and behavioral disorders associated with the puerperium, n.e.c.; other mental and behavioral disorders associated with the puerperium, n.e.c.,	F52, F53.1, F53.8, F53.9
Sexual assault by bodily force, other maltreatment, and sequale of assault Y05, Y07, Y87.1	Sexual assault by bodily force, other maltreatment, and sequale of assault	Y05, Y07, Y87.1
Counselling related to sexual attitude, behavior and orientation Z70	Counselling related to sexual attitude, behavior and orientation	Z70