



Women's Health Guideline

By Health Parliament

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How to use this guideline

The Ready Reckoner in this guideline provides information related to women's health for different age groups/stages of life. Please refer to the table of contents for the corresponding pages in the Ready Reckoner.

For each age & stage, the relevant information is listed in three columns: 'Issues/Symptoms,' 'Screenings' (if applicable), and 'Actions at Individual Level.' The last column lists the actions to be taken by girls/women (or their family members) for improving their health and addressing specific issues.

*Rx – denotes Allopathic System
Ax – denotes Ayurvedic System
G – Services available at government health facilities*

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Disclaimer

This is a general guideline on women's health and is meant for informational and educational purposes. It is not intended as a substitute for professional medical advice, screening, diagnosis, or treatment.

The guideline has been prepared after exhaustive consultation with a multidisciplinary team of senior practicing clinicians and is based on their practical experience and available evidence. However, the guideline does not necessarily represent the views of all clinicians. Further, adherence to the guideline does not imply successful identification, diagnosis, or treatment leading to similar results in every woman. Results can vary based on individual identifiable circumstances and the variability in biological behaviour specific to individual women. For any medical condition, it is recommended to seek the advice of a qualified medical professional without delay. The guideline is the outcome of the information, data, and inputs received at the time of its drafting, and revisions may be needed in the future.

Foreword

We founded Health Parliament, a tech-enabled think tank to work on evidence-based policymaking, with the aim of transforming healthcare. We are also into the professional leadership development for healthcare at all levels. We look at the systemic need gaps in healthcare, and are working to ensure that the gaps are filled rather than just writing academic reports and criticizing the system. This is the second guideline from Health Parliament.

Healthcare has advanced so fast that it has missed the basics in the process. A healthcare guideline is the starting point for any healthcare system, but it is often found to be missing. To ensure a healthy population, we need to start with the progenitor – women. The focus on women's health should not be limited to the reproductive cycle approach. We need to address women's health holistically by adopting a lifecycle approach. In September 2021, I approached Dr. V.M. Katoch, Dr. R.K. Srivastava, and Prof. Sunita Mittal with the idea of creating a women's health guideline intended for use by women and their families. I must put on record the immense contribution of these three legends in shaping the guideline.

Women take care of their entire family but often tend to neglect their own health. They often do not go to doctors for timely checkups, typically considering it as an option only when an ailment becomes unbearable or untreatable at home. This approach needs to change. I believe that women should have the basic information required to make a call on when to go for a health screening or visit a clinician for timely and appropriate intervention.

This guideline was developed by conducting field-level studies with women across India and after consultations with leading multidisciplinary experts. This guideline would not have been possible without the experts' valuable time and invaluable input.

If you have this guideline in your hands, it is because it was made possible due to the generous support of two healthcare leaders: Mr. Sanjiv Navangul, Managing Director & CEO, Bharat Serums & Vaccines Limited; and Mr. Anand Pande, Vice President, Asia Pacific, Ortho Clinical Diagnostics.

Dr. Neha Lakshman, who worked with the team on this initiative, deserves praise for her efforts.

We hope this guideline will reach every woman and nudge them to action with the goal of '*Healthy Women - Healthy Family - Healthy India.*'

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Abbreviations

AIS	Adolescent Idiopathic Scoliosis
ANC	Antenatal Check-up
ARSH	Adolescent Reproductive Sexual Health
ASHA	Accredited Social Health Activist
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BCG	Bacille Calmette-Guerin
BMI	Body Mass Index
CEO	Chief Executive Officer
C-Section	Caesarean Section Delivery
CVD	Cardio Vascular Diseases
DPT	Diphtheria, Pertussis & Tetanus
fIPV	Fractional dose of Inactivated Polio Vaccine
GD	Gestational Diabetes
H/o	History/of
HIV	Human Immunodeficiency Virus
IEC	Information, Education & Communication
IMR	Infant Mortality Rate
IUGR	Intra Uterine Growth Restriction
JSSK	Janani Shishu Suraksha Karyakram
JSY	Janani Suraksha Yojana
LBW	Low Birth Weight
MMR	Maternal Mortality Ratio
NABH	National Accreditation Board for Hospitals
NBS	New Born Screening
NCDs	Non-Communicable Diseases
NCRB	National Crime Records Bureau
NFHS	National Family & Health Survey
OOPE	Out Of Pocket expenditure
OPV	Oral Polio Vaccine
PCPNDT	Pre-Conception and Pre-Natal Diagnostic Techniques
PCV	Pneumococcal Conjugate Vaccine
PMS	Pre-Menstrual Syndrome
PMSMA	Pradhan Mantri Surakshit Matritva Abhiyan
PNDT	Pre-Natal Diagnostic Techniques
RBSK	Rashtriya Bal Swasthya Karyakram
RVV	Rotavirus Vaccine
SE	Self-Examination
SNS	Social Networking Sites
SRS	Sample Registration System
TB	Tuberculosis
Td	Tetanus and diphtheria toxoid
TOP	Termination of Pregnancy
TT	Tetanus toxoid
UIP	Universal Immunization Programme
UT	Union Territory
VHND	Village Health & Nutrition Day
WIFS	Weekly Iron & Folic acid Supplementation

Chapter 1

10

Women's Health Scenario

According to the Global Gender Gap Report 2021, India is ranked low in women's health and survival on various indicators. The Health and Survival sub index reveals discrimination against women, and a huge gap in sex ratio at birth is also evident. Intimate violence has been experienced by one out of every four women at some point in their lives. Annually, due to gender-biased prenatal sex-selective practices, China and India account for 90 to 95 percent of the estimated 1.2–1.5 million missing female births worldwide. Furthermore, India, China, and Pakistan have higher under 5 mortality rates in females as compared to males, which is related to neglect and gender-biased postnatal sex selection practices. Other factors such as low literacy rate also affect the gender gap. India is also among the countries with the largest economic gender gap, with a gap of 32.6 percent. One major source of inequality among males and females is the underrepresentation of women in the labor market. Only 22.3 percent of women in India participate in the labor market, resulting in a gender gap of 72 percent. Another area of gender gap is political empowerment. The share of women ministers in India declined from 23.1 percent to 9.1 percent between Jan 2019 and Jan 2021. While the gender gap in health and survival has remained stable globally, pre- and post-natal sex selection still persist in countries such as India, China, and Pakistan due to the social preference for male child and unequal access to women's healthcare. Though there has been some progress in women's health and survival as well as their educational attainment in India, the country is still lagging behind in this area. Therefore, these gaps must be filled to ensure better chances for future generations of women (World Economic Forum, 2021).

Even when adequate health services are available, women, especially in India, are less likely to access healthcare for themselves, despite having a high rate of health problems. They tend to forego regular examinations to manage family concerns or to take care of others. They often do not recognize their own health needs because of several sociocultural barriers (Key, 1987).

Normal age-related hormonal changes may affect women's health differently than men's health. But the focus of women's health has always been on reproductive health (Avotri & Walters, 1999). Hence, there is a huge need gap, which can be fulfilled with the help of a guideline.

Reality check:

To identify the core issues affecting women's health, Health Parliament commissioned two studies (an online study and a face-to-face study) to understand the various factors affecting women's health across rural and urban India. Additionally, multidisciplinary experts associated with women's health were also consulted.

Survey (by Health Parliament)



Online

An online survey was carried out by Health Parliament in the month of October 2021, and a total of 175 responses were received from women across different states in India.



Face-to-face

A comprehensive face-to-face survey was conducted from March 2022 to May 2022 across six zones in India with a sample of 2000 women.

Objectives

1

To identify health-related issues faced by women across different zones.

2

To understand the healthcare-seeking behaviour of women in urban and rural areas across six zones.

3

To assess the awareness level of women regarding various health programs and their utilization.

Key Findings

Information non-availability or inaccessibility was identified as one major concern for women healthcare.

Participants' profile

- **Age-wise distribution:** The majority of the participants were young women (20–44 years), followed by middle-aged women (45–59 years), and children (1–5 years).
- **Distribution of the marital status of the beneficiaries:** A total of 63 percent of the beneficiaries were single, 33 percent were married, 4 percent were widowed, and none were divorced.

Awareness level of health schemes among women across the different zones:

Program/Scheme	Awareness Percentage in the Zone					
	East	West	North	South	Central	North East
Janani Suraksha Yojana (JSY)	76.40	36.50	66	55.50	34	85
Janani Shishu Suraksha Karyakaram (JSSK)	76.50	29.60	22	50.50	21.60	48.50
Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)	41.57	29.70	46.66	37.36	29.70	69.70
Weekly Iron and Folic Acid Supplementation (WIFS) Programme	80.90	68.50	50	36.20	12.20	51
Rashtriya Bal Swasthya Karyakram (RBSK)	75.8	38	25.4	36.8	4.6	21.2
Rastriya Kishore Swasthya Karyakram (RKSK)	26.66	34.54	26.66	31.30	5.84	24.42
Universal Immunization Programme (UIP)	65.73	42.42	87.90	30.80	2.33	18.80
Village Health & Nutrition Day (VHND)	70.22	75.75	80.6	47.25	10.52	62.42

- A high awareness of the programs was observed in the East Zone, with the awareness level mostly greater than 70% for all schemes/programs except for RKSK (<27 percent) and PMSMA (41.57 percent).
- In the West Zone, while the awareness of VHND and WIFS programs was good, awareness of the rest of the programs was low.

- In the North Zone, very low awareness of JSSK, RBSK, and RKSK (20–30 percent) was observed, while awareness of UIP and VHND was found to be good (>80 percent).
- In the South Zone, the awareness of all programs ranged between 30 and 56 percent.
- In the Central Zone, very low awareness of all programs was observed, with extremely low awareness (<6 percent) of RBSK and RKSK.
- The North East Zone reported less awareness of most of the health schemes (<50 percent), except JSY (85 percent), PMSMA (69.70 percent), and VHND (62.42 percent).

Utilization of Program/Health scheme by women across different zones:

Program/Scheme	Program utilization percentage by beneficiaries in the zone					
	East	West	North	South	Central	North East
Janani Suraksha Yojana (JSY)	52.24	21.81	49.47	23.07	33.33	82.42
Janani Shishu Suraksha Karyakaram (JSSK)	52.24	28.48	20	11.54	13.45	25.45
Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)	41.57	29.70	46.66	37.36	57.30	69.70
Weekly Iron and Folic Acid Supplementation (WIFS) Programme	32	62	38.79	43.40	4.67	23.03
Rashtriya Bal Swasthya Karyakram (RBSK)	24.15	21.81	7.88	9.34	0	6.06
Rastriya Kishore Swasthya Karyakram (RKSK)	14.04	17.57	5.45	5.50	0	4.24
Universal Immunization Programme (UIP)	8.99	41.81	78.18	6.59	0	4.84
Village Health & Nutrition Day (VHND)	6.18	52.72	44.24	40.10	3.50	43.63

Zone-wise reach

- The survey found that, out of the eight different government schemes, on an average, PMSMA was the most utilized scheme by the beneficiaries, with a 47.04 percent penetration level. It was followed by JSY, with a 45.05 percent penetration level.
- The WIFS Programme and VHND were ranked third and fourth respectively, with penetration levels of 33.98 percent and 31.72 percent respectively.
- The least used programs among the beneficiaries were RBSK and RKSK, with penetration levels of 11.54 percent and 7.8 percent respectively.

Participants' experience with the programs

The field survey revealed that the percentage of women who felt that these programs have helped improve women's health was the highest in Delhi (North Zone) at 90 percent, followed by 70.9 percent in Guwahati (North East), 60 percent in Hyderabad (South), and 13 percent in Mumbai (West).

Zone-wise health issues

One key highlight is that the health issues was found to vary from zone to zone, as reflected in the field study (survey). Although the majority of the problems faced were common, the primary healthcare problems were found to be different for different zones.

The health condition that was common to all zones was blood pressure. Calcium deficiency was the most commonly occurring condition in the East Zone, cold and cough in the West Zone, fever in the North and Northeast zones, abdominal pain in South Zone and blood pressure in the Central Zone.

Other issues expressed by women in the different zones were as follows:

- East: Calcium deficiency, weakness, menstrual issues, pregnancy-relates issues, and urinary problems
- West: Cold cough, protein deficiency, blood pressure, calcium deficiency, and malnutrition
- North: Fever, weakness, malnutrition, blood pressure, and body ache
- South: Abdominal pain, malnutrition, blood pressure, fever, and headache
- Central: Blood pressure, diabetes, malnutrition, low hemoglobin levels, and fever
- North East: Fever, blood pressure, low hemoglobin level, back pain, and thyroid issues.

Healthcare-seeking behavior

Women sought the following healthcare options in order of preference in case of any health-related issue (with the majority of women reaching out to health centers):

- **Health centers**
- **Family members**
- **Chemists**
- **Accredited Social Health Activist (ASHA) workers**
- **Internet search**
- **Neighbors**

Zone-wise distribution, in order of preference (highest to lowest percentage), of healthcare options sought by women in case of health-related issues:

East: Family, Health Centers, ASHAs, Chemists, Internet, and Neighbors

West: Health Center, Family, Chemists, ASHAs, and Internet

North: Health Center, Chemists, Family, and Neighbors

South: Health Center, Family, and Neighbors

Centre: Family; Health Center; Chemists; ASHAs and Internet; and Neighbors

North East: Family; Health Center; Chemists; ASHAs and Internet; and Neighbors

- In three out of the six zones, majority of women reached out to health centers as their first choice, while in other three zones, they reached out to their family first.
- In two out of the six zones, chemists were the second choice, while in two other zones, chemists were the third choice.
- In four zones, women listed ASHAs as their third or fourth choice.
- Internet was the second to last choice in two zones and the last choice in one zone. Neighbors were the last choice in five zones.

In metro cities (North, West, and South zones), women directly approached health centers for health-related issues, whereas in tier two cities such as Patna, Bhopal, and Guwahati (East, Central, and North East zones), women approached their family first. This reflects the fact that women in metro cities have more independence compared to those in other cities.

Majority of women in the North, East, Central, and North East regions stated that they primarily opted for allopathic treatment. However, in the West Zone, women noted that they preferred homecare remedies as the first option for health-related issues. In the South Zone, more than 41 percent women stated that they ignored health issues and waited for it to resolve on its own, while more than 40 percent (second-highest majority) reported opting for allopathic treatment. In all six zones, only a few women reported opting for ayurvedic or homeopathic medicines.

Time for self

In the North, South, West, and North East zones, more than 60 percent of women reported that they got to spend some time for themselves. More than 48 percent women in the Central Zone and more than 35 percent in the East Zone stated that they got some time for themselves. Less than 31 percent in all zones reported that they did not get to spend some time for themselves.

According to our study, irrespective of their educational qualifications, most women across the zones had poor awareness of their health issues and of the government schemes and programs.

Chapter 2

Different Aspects of Women's Health

Mental Aspect of Health

Mental health includes emotional, psychological, and social well-being, and it affects how a person thinks, feels, and acts (Centre for Disease Control and Prevention, n.d.).

Gender differences have commonly been observed in various mental disorders and illnesses, with women being found to be more prone to them than men. Further, the patterns of psychological distress and psychiatric disorders are also very different in women. Women exhibit higher levels of internalizing disorders (characterised by anxiety, depressive, mood disorders & somatic symptoms), while men exhibit higher levels of externalizing disorders (characterised by impulsive, disruptive conduct, substance use etc). Additionally, the prevalence of mental health problems such as depression, anxiety, and other psychological distresses is 2–3 times higher in women than in men (Malhotra & Shah, 2015).

Women in India experience disturbed interpersonal relations, which is a common reason for suicide. Spousal violence is an independent risk factor, followed by psychiatric disorders and physical illnesses. Studies have found that while the rate of death due to suicide is higher in males, the rate of attempted suicide is higher in females. China has the highest female suicide rate, followed by India (Malhotra & Shah, 2015).

Physical Aspect of Health

For women's overall health, it is important to have good mental as well as physical health as it is observed that various physical illnesses, especially chronic conditions such as diabetes, pose a higher risk of mental illness. Conversely, mental health problems such as depression are responsible for an increased risk of physical health problems such as stroke and diabetes (Centre for Disease Control and Prevention, n.d.).

Behavioral Aspect of Health

Substance abuse

Despite differences across nations, rates of drug addiction—notably abuse of alcohol, tranquilizers, and analgesics—are rising globally. Women are more likely to attribute their drinking to a traumatic event or a stressor. Further, women who abuse drugs or alcohol are more likely to have been sexually or physically assaulted. Female alcoholics have much higher rates of severe depression and anxiety issues. As a result, the profile of men and women who abuse substances differs from each other. However, despite the rising rates of substance abuse, the support services for women remain limited (Malhotra & Shah, 2015).

Health-seeking behavior of women

Women in our society have been found to have poor healthcare-seeking behavior (Mahapatra & Kar, 2019). In many societies, women face discrimination based on sociocultural factors, which puts them at a disadvantage. There is a need to overcome several societal barriers to ensure the empowerment of women and to enable them to have access to high-quality healthcare services. According to a study by Reddy et al. (2020), very few women in Telangana state seek medical attention as soon as they notice the symptoms of a disease. Furthermore, there is a need to raise awareness about the importance of healthcare and the availability of health centers, as a significant proportion of the female population continues to approach unqualified medical practitioners and seek home remedies as their first healthcare option in case of health issues.

Sociocultural Aspect of Health

A study revealed that girls living in nuclear families and women who marry young are at a higher risk for self-harm and suicide. In India, the peak of suicide rates is usually in the age group of 18 to 29 years for both women and men. However, in the age group of 10 to 17 years, the rate of suicide of girls is higher than that of boys. According to statistics compiled by the Indian government, the precipitants for suicide among women include disputes related to dowry, love affairs, pregnancies that are not legitimate, and quarrels with partners or in-laws (Malhotra & Shah, 2015).

Chapter 3

18

Challenges to Women's Health

Emerging Challenges

- Lifestyle changes
- Early puberty
- Lifestyle-related problems



Historical & Current Challenges

- Mindset
- Routine workload



Historical Challenges

- Culture and neglect

Historical Challenges

Culture and neglect: Women, especially in a country such as India, are taught from early childhood to compromise, adjust, and put other members of the family first, particularly the male members of the family. From education to healthcare, men are often prioritized in Indian families (Zodpey & Negandhi, 2020). Young girls are expected to adapt, adjust, and take up the least space. They learn such social behavior from their mothers and other older women and begin to view caring for themselves as selfish, demanding, and wrong. This is later reflected in the form of dowry and through women's endurance of different forms of abuse and violence, which in turn contribute to their poor health (The print team, 2018). The cultural norms imposed on an Indian woman can be succinctly described using the words "sacrifice" and "compromise." Women are taught the inexhaustible virtue of absorbing these values in their lives, whether as daughters or as daughters-in-law, and it is emphasized that these two values should guide a woman's whole life (Singh, 2019).

Historical and Current Challenges

Mindset: Gender inequalities in India begins at birth, with the sex ratio being in favor of men (Zodpey & Negandhi, 2020). Women are disadvantaged even before birth due to the prevalence of female feticide even though sex determination of the fetus using diagnostic techniques such as ultrasound is illegal in India. Female feticide continues to be prevalent in the country despite the enforcement of the Pre-Natal Diagnostic Techniques (PNDT) Act by the government. Additionally, women often take sex-selection drugs before conception to have a male child instead of a female. Accordingly, the PNDT Act was amended as the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act to improve the regulation of technology. But the society's mindset remains unchanged, and the preference for sons continues in India, despite changes in the strategies (Bhattacharya & Singh, 2016).

Routine workload: In India, the compulsory heavy domestic workload is done almost exclusively by the women of the house. This leads to physical as well as mental health problems for women (Avotri & Walters, 1999).

Emerging Challenges

Early puberty : In young girls, puberty is setting in earlier than it used to. A study carried out in London found that girls in the poorest income group were twice as likely to start menstruating early than those belonging to the richest income group. Indian girls were three times more likely to begin menstruating early than White girls. It was also observed that social inequalities in early puberty were associated with increased adiposity and psychosocial stress in girls (Kelly et al., 2017).

Lifestyle changes: With the changes in lifestyle, people are increasingly confined to their homes. A recent study found that sedentary behavior, particularly television viewing, was related to a less healthy diet, which included fewer fruits and vegetables and more energy-dense snacks and sugar-sweetened drinks (Hobbs et al., 2015). Such behavior has increased significantly with the COVID-19 pandemic and associated lockdowns (Stockwell et al., 2021).

Lifestyle-related problems: In the last decade, the global rapid growth of social networking sites (SNSs) has caused such platforms to evolve into informal sources of health education. A lot of content on social media promotes idealized bodies, healthy meals, diets, and exercise—all of which garner a lot of attention. Increased social media use has caused concerns regarding mental health as it can contribute to body image issues, eating disorders, and psychological distress. Further, it can result in unintended consequences such as recurring cycles of weight loss and gain, chronic stress, exercise avoidance, and depression (Marks et al., 2020).

Chapter 4

21

Barriers to Women's Health

1

Inequality

Gender inequality and truncated opportunities for women constitute one of the factors that adversely affect women's health. In India, the most common health equity measures are wealth and income, followed by education and gender. Several studies are now increasingly focusing on issues related to gender disparities (Bhan et al., 2016). India's young population is one of the world's fastest-growing populations. A quarter of India's rapidly increasing population is comprised of females under the age of 19. Despite India's reputation for treating women like goddesses, the first question that is often asked when a child is born is "male or female?" (Rao et al., 2015).

A study by Avotri & Walters (1999) found that when women were enquired about the prominent health problems they faced, the majority reported psychosocial health problems as opposed to reproductive health problems. A total of 75 percent of women felt that they had psychosocial health issues such as "overthinking" and "over-worrying," which, in turn, were frequently connected to issues such as exhaustion and sleeplessness. Most of the women also complained of physical aches, including headaches and body pains. The gender roles, which relegate household chores to women, were found to be a major contributor for such issues.

2

Dependency (on male family members)

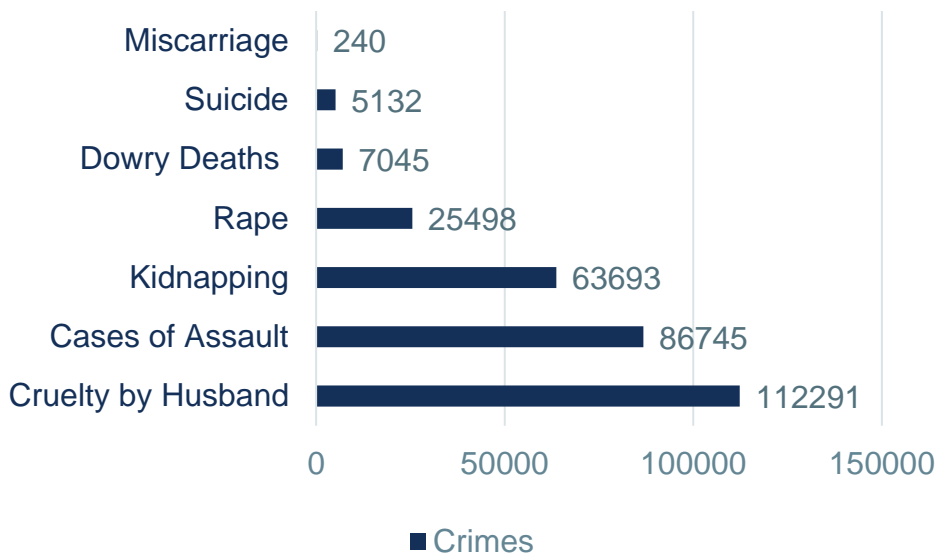
An ancient text states, "By a little girl, a young lady, or even an old one, nothing must be done independently, even in her own house." Such thoughts get ingrained in girls as they grow up, and they invariably take up their mothers' domestic duties and gender responsibilities (Rao, 2015).

3

Gender-Based Violence

In India, about two-thirds of married women are victims of domestic violence, and around 70 percent of Indian women between the ages of 15 and 49 are victims of forms of violence such as beating, rape, or coerced sex. When it comes to reproductive roles, women who are infertile or are unable to produce a male offspring are forced to endure battering from their partners. They are at a higher risk of suicide and often require psychiatric treatment. Gender-based violence in India commonly take the form of female feticide, dowry harassment or deaths, sexual trafficking, physical and mental torture, and public humiliation. Thus, women in India are subject to violence at all stages of life, beginning from when they are a fetus and continuing into childhood and adulthood. This results in devastating long-term effects on all aspects of their health, be it physical, mental, or emotional (Malhotra & Shah, 2015).

Crime: In India, as per the National Crime Records Bureau (NCRB) report, 371,503 cases of crime against women were reported in the year 2020. The total crime rate registered against women was found to be 56.5 per one lakh female population. Crime records reveal the major crimes against women to be as follows:



The majority of crimes were registered under “Cruelty by Husband or His Relatives” (30.0 percent), followed by “Assault on Women with Intent to Outrage her Modesty” (23.0 percent), “Kidnapping and Abduction of Women” (16.8 percent), and “Rape” (7.5 percent).

Child Marriage: Despite the Prohibition of Child Marriage Act, 785 cases of child marriage were registered in the year 2020, 523 in 2019, and 501 in 2018. This indicates an increase in the crime rate from 0.1 to 0.2 (NCRB, 2020). Early marriages lead to early pregnancies among young girls. A study conducted in 97 nations found that countries with higher rates of girl child marriage were more likely to have higher rates of maternal and infant mortality as well as non-utilization of maternal health services (Raj & Boehmer, 2013).

4

Education

Health and education are the two major pillars that determine the progress of a society. There is a gap in opportunities and circumstances when it comes to education of women in countries such as India. The literacy rate for females in India is 65.46 percent, as reported in the 2011 census. However, the government has undertaken several initiatives, including the “Education for All” program, which provides amenities such as free books and uniforms, mid-day meals, and scholarships, to encourage more girls to attend school (Kumar & Sangeeta, 2013).

5

Social Structures

Women are seen as nurturers and providers of emotional caretaking as opposed to providers of financial support. Three-quarters of the population of India still live in rural areas, where issues related to the girl child are rampant. Early marriage of girls has religious and societal repercussions in India. Despite the fact that the legal age of marriage for women is 18 years, parents are often under tremendous societal pressures to marry their daughters young. Early marriage sometimes leads to multiple pregnancies at a young age when the body is not yet ready for motherhood. In comparison to women in the age group of 30–34 years (59.7 percent), girls aged 15–19 are more likely to have delivery problems (66.6 percent), and neonatal, newborn, and child death rates are substantially higher for younger women (Rao et al., 2015). The Prohibition of Child Marriage (Amendment) Bill, 2021 was passed on December 21, 2021 with the aim of raising the age of marriage for women from 18 to 21 years (THE PROHIBITION OF CHILD MARRIAGE (AMENDMENT) BILL, 2021).

6

Lack of Insurance

India has some of the highest out-of-pocket healthcare costs in the world. Despite the adoption of several governmental health plans and the availability of a significant number of public and commercial health insurance programs, this scenario persists. Compromises in the quality of service in many public healthcare institutions is a key reason why the ordinary Indian citizen is forced to rely more heavily on private healthcare. Although the existing health insurance systems have the capacity to cover 70 percent of the population—almost 95 crore people—the actual coverage is lower (Ayog, 2021).

A study by Gowda et al., (2015) revealed that the rural population had a decent awareness of health insurance. Hence, more emphasis should be placed on the execution of the health insurance program.

7

A study conducted in Rajasthan found stark gender disparities within a government health insurance program that provides free hospital treatment to 46 million impoverished people. Males account for about two-thirds of non-childbirth expenses, while females account for just 33 percent of pediatric hospital visits and 43 percent of geriatric hospital visits. These percentages are lower for more expensive forms of treatment (Dupas & Jain, 2021).

Lack of Guidelines

Women's health guidelines published by Johns Hopkins Medicine emphasizes that to live a longer, better, and healthier life, women must attend to their bone health, limit alcohol, smoking, and drug use, eat well, stay active, get regular checkups with a specific focus on screenings such as sigmoidoscopy, colonoscopy, etc. (Johns Hopkins Medicine, n.d.). These guidelines, however, lack information on screenings and checkups for specific age groups and for specific aspects of women's health. Currently, there are no women's health guidelines available, especially in India, which cover all age groups and focus on preventive as well as promotive care.

Chapter 5

Indicators

Health Indicators

Maternal Mortality Ratio (MMR)

State/UT	SRS 2016–18	SRS 2017–19
INDIA	113	103
Assam	215	205
Bihar	149	130
Jharkhand	71	61
Madhya Pradesh	173	163
Chhattisgarh	159	160
Odisha	150	136
Rajasthan	164	141
Uttar Pradesh	197	167
Uttarakhand	99	101
Andhra Pradesh	65	58
Telangana	63	56
Karnataka	92	83
Kerala	43	30
Tamil Nadu	60	58
Gujarat	71	70
Haryana	95	96
Maharashtra	46	38
Punjab	129	114
West Bengal	98	109

The states with the highest MMRs include Assam, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha, and Bihar.

Red Font: States whose MMRs are higher than the national average.

States whose MMR has deteriorated from the previous survey are highlighted in blue. More than 50 percent of states showed a higher MMR than the national average as per the Sample Registration System (SRS) 2017–2019 data.

Infant Mortality Rate (IMR)

State/UT	SRS 2017			SRS 2019		
	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES
India	33	32	34	30	30	31
Andhra Pradesh	32	31	33	25	25	26
Assam	44	41	46	40	38	41
Bihar	35	34	37	29	26	33
Chhattisgarh	38	39	37	40	40	40
Delhi	16	17	16	11	10	12
Gujarat	30	30	30	25	26	24
Haryana	30	28	31	27	28	26
Himachal Pradesh	23	22	23	19	24	15
Jammu & Kashmir	23	22	23	20	20	21
Jharkhand	29	25	33	27	25	29
Karnataka	25	24	26	21	20	22
Kerala	10	9	10	6	6	7
Madhya Pradesh	47	48	45	46	49	43
Maharashtra	19	18	19	17	16	18
Odisha	41	40	41	38	38	38
Punjab	21	20	22	19	19	19
Rajasthan	41	40	41	35	36	35
Tamil Nadu	16	17	16	15	15	14
Telangana	29	28	29	23	24	22
Uttar Pradesh	41	39	43	41	40	42
Uttarakhand	32	25	29	27	27	28
West Bengal	24	23	24	20	20	20

Red Font: States which have a higher IMR for females than males.

States whose IMR (for females) has deteriorated from the previous survey are highlighted in blue.

It can be observed that the average IMR at the national level as well as the IMRs of several states are higher among females.

Under 5 Mortality Rate (U5MR)

State/UT	SRS 2017			SRS 2019		
	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES
India	37	36	39	35	35	35
Andhra Pradesh	35	35	34	31	32	30
Assam	48	45	51	43	41	45
Bihar	41	39	43	34	31	37
Chhattisgarh	47	49	44	44	46	42
Delhi	21	20	22	13	13	14
Gujarat	33	33	33	28	29	27
Haryana	35	32	38	31	31	32
Himachal Pradesh	25	24	27	23	27	20
Jammu & Kashmir	24	25	24	21	20	23
Jharkhand	34	30	38	31	28	33
Karnataka	28	28	28	26	25	27
Kerala	12	12	11	9	9	8
Madhya Pradesh	55	56	54	53	56	49
Maharashtra	21	21	22	21	20	23
Odisha	47	46	48	43	45	40
Punjab	24	23	25	21	21	21
Rajasthan	43	41	45	41	41	41
Tamil Nadu	19	19	19	16	17	15
Telangana	32	31	33	26	26	26
Uttar Pradesh	46	43	48	48	47	50
Uttarakhand	35	38	32	30	29	31
West Bengal	26	25	27	24	25	24

Red Font: States which have a higher U5MR for females than males.

States whose U5MR (for females) has deteriorated from the previous survey are highlighted in blue.

It can be seen that a few states such as Assam, Bihar, Uttar Pradesh, and Jharkhand have a significant disparity between the male and female U5MR, with the U5MR for females being considerably higher.

Sex Ratio

The sex ratio in India was found to be 991 females per 1,000 males according to National Family Health Survey (NFHS)-4 and 1020 females per 1000 males according to NFHS-5.

States/UTs with the highest sex ratio include Kerala, Pondicherry, Lakshadweep, Andhra Pradesh, and Tamil Nadu.

States/UTs with the lowest sex ratio include Daman and Diu, Dadra and Nagar Haveli, Delhi, Chandigarh, Haryana, Punjab, and Jammu & Kashmir.

Sex Ratio at Birth

The sex ratio at birth in India was found to be 919 females per 1,000 males according to NFHS-4 and 929 females per 1000 males according to NFHS-5.

Non-Health Indicators

Women who are literate (percent): The literacy rate of women in India is 68.4 percent according to NFHS-4 and 71.5 percent according to NFHS-5.

Women aged 20–24 years married before the age of 18 (percent): Women married before the age of 18 totals to 26.8 percent according to NFHS-4 and 23.3 percent according to NFHS-5.

Women aged 15–19 years who were already mothers or pregnant (percent): According to NFHS-4, 7 percent of women in India aged 15–19 years are already mothers or pregnant, while the figure is 6.8 percent according to NFHS-5.

Participation in decision making: Currently, the proportion of married women who regularly participate in household decisions is only 87 percent as per NFHS-4 and 88.8 percent as per NFHS-5.

Chapter 6

30

Methodology



Chapter 7

31

Government Initiatives for Women's Health

1

Janani Suraksha Yojana (JSY)

JSY is a scheme that focuses on safe motherhood. It was launched all over India with the objective of reducing maternal and neonatal mortality, especially in the low-performing states (with respect to institutional deliveries). JSY aims to promote institutional delivery among pregnant women of the poor sections of the society by providing financial assistance for delivery and post-delivery period (National Health Portal, n.d.).

2

Janani Shishu Suraksha Karyakaram (JSSK)

JSSK is another intervention scheme for safe motherhood. It encompasses free delivery, including C-sections, at public health institutions and aims to eliminate out-of-pocket expenditure (OOPE) for drugs, diagnostics, investigations, food, blood, etc. Earlier the scheme covered mothers and neonates for 48 hours, but it was later extended to include antenatal and postnatal complications in pregnancy and care for children up to one year of age (National Health Mission, n.d.).

3

Weekly Iron and Folic Acid Supplementation (WIFS) Program

Anemia is the most widespread nutritional deficiency disorder and occurs primarily due to iron deficiency. The WIFS program targets the high prevalence and incidence of nutritional anemia among adolescent girls and boys in the age group of 10–19 years by providing them free iron and folic acid tablets weekly along with screening tests for the same. It also covers biannual deworming for controlling worm infestation. It is aimed at two target groups: (a) girls and boys enrolled in schools and (b) adolescent girls who are not in school. The program also covers adolescent girls who are married, pregnant, or lactating (National Health Mission, n.d.).

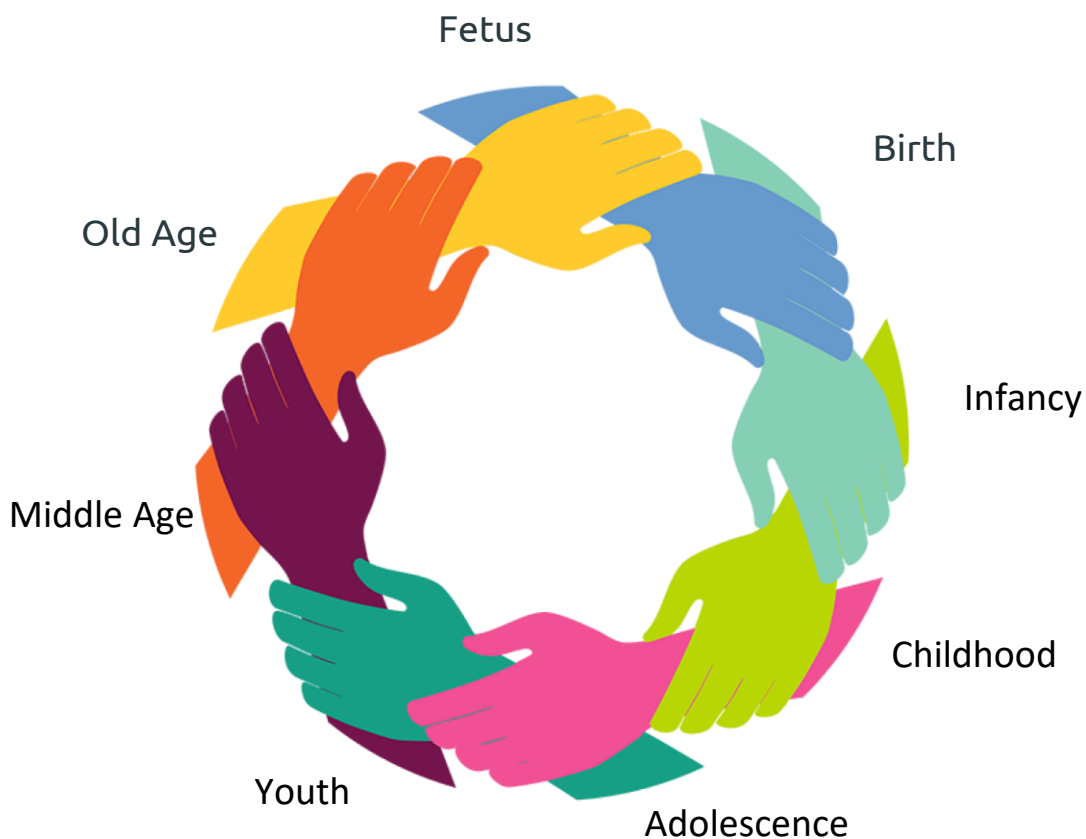
Positive Outcomes of the Government Initiatives

Although the abovementioned programs are focused only on reproductive health, they have helped improve at least one aspect of women's health—and consequently, child health—and has lowered the MMR and IMR to a great extent. The MMR in India was 374 in the year 2000. It dropped to 215 in 2010, 174 in 2015 (Our World in Data, n.d.), and 113 in 2016–18 (SRS). IMR in India has shown a decline from 50 in 2009 to 39 in 2014 and 30 in 2019 (SRS).

Chapter 8

The Lifecycle Approach

We need to look beyond the reproductive aspect of women's health and focus on their holistic health by adopting an approach that covers all stages of women's life. With this aim, this guideline adopts the lifecycle approach.



Health issues and symptoms are listed based on age and stage of life. The guideline also lists the screenings corresponding to each issue, followed by actions that can be taken at the individual level. It also touches upon public health measures. The measures are classified according to the stages of life, i.e., from fetal stage to old age.

Chapter 9

Stages & Age Groups

34

The following stages and age groups are covered by the guideline:

Stage	Age Group
Fetus	Prenatal (In utero)
Birth (Newborn)	Natal (On the day of birth)
Expectant Mother/Pregnancy	Under 19
	20–34
	35 and above
Postpartum (Mother)	6 weeks or 42 days post birth
Neonate	0–1 month
Infancy	0–1 year
Childhood	1–5 years
	6–10 years
Adolescence	11–14 years
	15–19 years
Young Women	20–44 years
Middle Aged Women	45–59 years
Senior Women	60–80 years
Long Survivor	Above 80 years

Chapter 10

Challenges & Health Issues

35

1 Intra-Uterine (fetal) Life

Sex selection and female feticide: Sex-selective termination of pregnancy (TOP), which is usually done due to a predilection for sons, has had major demographic implications. It is a practice observed in various nations, including India, following the determination of the sex of the fetus using ultrasound techniques. The preference for son results in female feticide, which, in turn, results in male-biased sex ratios. The reasons for preferring a son can be various, including patrilineal kinship, in which the family name is passed down through the male line; dowry as an economic reason, since marrying off a girl incurs significant expenses and can affect the financial security of her parents and families; and the need for agricultural labor, especially in rural sections of the society (Bowman-Smart et al., 2020).

2 Newborns

Inborn errors of metabolism: In India, the U5MR for the male child is 37 per 1000 live births, while it is 41 per 1000 live births for females. At present, there is no national Newborn Screening (NBS) program in India. Although the exact incidence of hearing defects and congenital heart abnormalities in newborns in India is not known, it is estimated to be approximately 4:1000 and 5:1000 respectively. The incidence of inborn errors of metabolism (IEMs) is estimated to be approximately 1:1000. This high incidence is due to the increased prevalence of consanguinity in our country. If left undiagnosed and untreated, it can cause developmental retardation, learning disabilities, autism, dyslexia, behavioral abnormalities, and scholastic backwardness later in life. Furthermore, the diagnosis, treatment, and management of these disabilities in children constitute a considerable financial and emotional burden for the parents (Jalan & Kudalkar, 2020).

3 Infancy

Female infanticide: Female infanticide is among the most heinous types of violence against women, as it denies her most fundamental right, “the right to life.” It leads to gender imbalance, social brutality, and injustice in the society. Despite the passage of legislation prohibiting the same, this horrible crime continues to go unpunished (Ansari, 2018).

According to NFHS-5, the sex ratio has increased from 991 in 2015–16 to 1020 in 2019–21, but the sex ratio at birth has shown only a marginal increase from 919 to 929. Female feticide and infanticide need to be prevented, but this aim can only be achieved if 1) people are educated and made aware of the issue, especially in rural areas; 2) misuse of technique is prohibited; 3) advertisement of sex determination techniques is banned; 4) the PCPNDT Act is enforced strictly and adequate punishment is meted out to violators; 5) free school education for girls is ensured; 6) media and social organizations are involved; 7) all departments in government and non-government organizations collaborate and work together (Ansari, 2018).

Intervention: The majority of crime goes unnoticed by the general public, and those cases that are brought to the attention of the law are often left unproven owing to a lack of appropriate evidence. There is a need to differentiate live births from still births; neonatal line can provide evidence against the claim of still birth and can be used for investigations (Kandavel et al., 2019).

4 Children (Under 5)

Adverse childhood experiences (ACE): People who have had four or more ACEs are at a higher risk of developing chronic diseases such as cancer, heart disease, diabetes, mental illness, and other unhealthy behaviors. Adversity has been demonstrated to impact a child’s molecular and genetic makeup as well as the development and function of their neurological, immunological, and endocrine systems. As adverse events in early childhood have long-term health consequences, these are a major public health concern (Boullier & Blair, 2018)

Pneumonia: It is one of the main causes of death among children under 5 in India (Kumar et al., 2021).

Diarrhoeal diseases: High incidence of diarrheal disease is observed across the globe every year. Life-threatening infectious diseases such as typhoid and cholera, which transmit mainly through contaminated food, drink, or water, majorly affect low- and middle-income countries due to poor sanitation and overcrowding. Typhoid is prevalent in India, with high mortality in children under 5 years of age (Amicizia et al., 2019)

Poor nutrition/undernutrition: One major public health issue in Asia is the incidence of undernutrition among children. This is especially true in the case of South Asia, where it is observed primarily among poor and rural people (Pasricha & Biggs, 2010). India is home to about 40 percent of the world's stunted children, and the prevalence of undernutrition has remained high in recent decades. Short maternal stature, lack of maternal education, households in the lowest wealth quintile, poor dietary diversity, and low weight of the mother were identified as the five most important predictors of childhood stunting/underweight (Corsi et al., 2016). U5MR is higher in the Central and East zones than in the North, North East, West, and South Zones. A below-average-sized child at birth has a significantly higher chance of mortality than an average- or above-average-sized child. The chances of survival can be increased with antenatal care.

Interventions: Raising the maternal age can act as a protective factor in the survival of children under five years of age. Other factors include breastfeeding, adequate birth interval, mother's education, father's education, nutrition of mother during pregnancy, and institutional deliveries (Singh & Tripathi, 2013)

5 Children (Under 10)

Dental caries in children: Dental caries is one of the most common problems related to children's oral health around the world (Chugh et al., 2018).

Vaccination in children: Childhood immunization is an effective strategy to protect children from dangerous infections, but many children do not receive all the recommended vaccines. There are a variety of reasons for this. For example, parents may not have access to quality healthcare, or the healthcare centers may be located far away for easy access. Lack of financial resources is another important reason. Some parents may have trust issues with vaccines or the healthcare workers who administer the vaccines. Furthermore, due to lack of information or misinformation about the effectiveness of immunization against diseases, some parents may feel that vaccinations are unnecessary (Ames et al., 2015).

Adolescent idiopathic scoliosis (AIS): AIS is a developmental, structural, three-dimensional deformity of the spine and can affect the functioning of other systems of the human body, including musculoskeletal, nervous, cardio-respiratory, and internal organ systems. Postural stability is a major issue associated with it (Wiernicka et al., 2019). It is more prevalent among girls than boys. Idiopathic scoliosis (IS) screening in primary schools is essential as it is critical for early detection and prevention of severe deformity as well as the healthy growth of the child (Tahirbegolli et al., 2021)

6 Adolescents (Under 19)

In poor countries, various health problems are observed during adolescence. Violence, injuries, mental disorders, Non-Communicable Diseases (NCDs), high adolescent birth rates, chronic physical illnesses, substance abuse, and unmet need for healthcare are common problems that result from a lack of knowledge about healthcare access, lack of trust, stigma, and high OOPEx (Patton et al., 2016).

Mental health problems in adolescents: Around 10–20 percent of children and adolescents have some kind of mental health issue, and it can lead to short attention span, cognitive abnormalities, lack of enthusiasm and motivation, and negative mood, all of which can have a detrimental impact on academic development and progress (Schulte-Körne, 2016).

Adolescent depression: Depression during adolescence increases the likelihood of depression later in life. A link between adolescent depression and adult suicidal tendency has been observed (Johnson et al., 2018).

Child marriage: Despite the fact that child marriage is considered a violation of human rights, it continues to be extensively practiced, affecting 15 million girls globally each year. From an economic perspective, child marriage is both a cause and a result of poverty. Child brides' yearly wage rates were found to be about half that of women who married at 18 years or older, and their economic position in the household was weaker. Child marriages have a negative impact on the country's macroeconomic situation. The consequences of child marriage range from low literacy and reduced opportunities to contribute to the economy to childbearing and other physical and mental health issues, which can have a negative impact on the overall productivity (Singh, 2017).

Interventions: Despite a decline in child marriages worldwide in the recent past, they continue to be prevalent in South Asia. Child marriage must be abolished since it is inextricably tied to concerns affecting children and young people. Eradication of this threat necessitates partnership and collaboration across sectors such as education, health, and justice as well as the participation of young girls and boys, their families, communities, religious and traditional leaders, governments, and other stakeholders (Bhanji & Punjani, 2014).

In many nations, the emphasis on secondary education, particularly for females, has created incredible prospects for health and well-being of adolescents. Secondary school education increases cognitive capacities, improves mental, sexual, and reproductive health, and reduces the chance of developing NCDs later in life. Digital media and internet technology offer a slew of service delivery opportunities and new avenues for interactions, especially for adolescents (Patton et al., 2016).

In 2011, the World Health Organization (WHO) published a set of guidelines titled “Preventing Early Pregnancy and Poor Reproductive Outcomes among Adolescents in Developing Countries.” It provided various recommendations, including the prevention of marriage before the age of 18 years. There is a pressing need to expand educational opportunities for girls, as this benefits their health and reduces the chances of marriage at an early age. Further, cultural norms that support early child marriages should be addressed through the engagement of various stakeholders. Similarly, interventions that could lead to the creation of laws and policies must be introduced to safeguard teenagers from early marriage (e.g., public advocacy). Economic incentives and livelihood programs might help teenagers postpone early marriage. Existing interventions to educate and empower adolescent girls, families, and communities should be reexamined in order to delay early marriage (Svanemyr et al., 2012)

Undernutrition (pregnancy): The first 1000 days, i.e., the period from the time of pregnancy till the second birthday of the child, is known as the golden days. It is the most crucial phase of life because the brain, body, and the immune system grow significantly during this period in addition to rapid physical growth and accelerated mental development. The baby, when in the womb, is dependent on the mother for nutrition and growth (physically, mentally, and emotionally); hence, the nutrition of the mother during and even before pregnancy is important for the development of the baby (National Health Mission, 2018). Children who get adequate nutrition during this period are 10 times more likely to overcome life-threatening childhood diseases. It has also been observed that these children grow into adults who earn 21 percent more in wages and are more likely to have healthier families (UNICEF, 2017).

Gestational diabetes: Women who have had gestational diabetes are seven times more likely to develop diabetes type 2 and are at a higher risk for hypertension and cardio-vascular diseases (CVD) (Lai et al., 2020). Women above 25 years of age are at a higher risk of developing gestational diabetes than younger women (Johns Hopkins Medicine, n.d.).

7

Young Women

Various issues are observed in this age group including affecting physical as well as mental health of women in this age group. There are issues like unhealthy diets and undernutrition. They are more at risk sexually transmitted infections (STIs) as they are sexually active. Having unprotected sex puts them at risk of Human Immunodeficiency Virus (HIV) Infections/Acquired Immune Deficiency syndrome (AIDS), Herpes, Syphilis, chlamydia, trichomoniasis and other STIs. Mental health issues like stress and anxiety are also common. Non-Communicable diseases, Road traffic accidents and violence are another major concern effecting health of women in this age group. (Sunitha & Gururaj, 2014).

As per the National Family Health Survey (NFHS)-5 report, 57 percent of women in the age group 15-49 years are anaemic; 4 percent of women consume some form of tobacco; 19 percent of the women in the same age group are thin and 24 percent are overweight or obese (NFHS, 2021).

8

Middle-Aged Women

Anemia, obesity, hypertension, cancer, depression, heart disease, stroke, sleep-related issues, and menopause are the commonly observed health problems in middle-aged women. Mid-life crisis is another psychological issue seen in these women, especially if they face the dilemma of choosing between career and children/household. Mid-life crisis can also be caused due to career stagnancy or when women feel as if there is a void left by their children leaving home.

Menopause is a normal aging process; however, the transition period is marked by irregular periods, hot flashes, vaginal dryness, difficulty in sleeping, mood swings, weight gain, etc. (Johns Hopkins Medicine, n.d.).

9 Senior Women & Long Survivors

Although health problems can be equally debilitating in the young, health status becomes more important as one grows older as it poses increased health risk. Diabetes, arthritis, hypertension, heart disease, cancer, and Alzheimer's are the commonly observed chronic health conditions in this age group (Belvedere Homecare, n.d.).

People belonging to this age group should not be neglected, and they constitute an important category, especially from a public health perspective. Weaknesses and sensory and cognitive changes are common as an individual ages. Issues such as hearing loss, vision loss, muscle loss, and fat deposition are a normal part of the aging process, and chronic diseases such as CVD, osteoarthritis, diabetes mellitus, and osteoporosis are common in this group. Other issues such as depression and mobility disabilities are also frequently observed (one in three over 85 years of age with a disability live alone, making falls and depression more common). Urine incontinence is more commonly observed in women. CVDs such as ischemic heart disease and congestive heart failure are the most common causes of death among old adults, followed by cancers. Though the death rate from cancers decreases by the age of 85, slow-growing cancers can be observed in this age group (Jaul & Barron, 2017).

Interventions: In the final stage of life, focus should be on improving the quality of life. Routine clinical assessments should be conducted, and a healthcare agent should be appointed to every individual above 85. Support for caregivers, in-home assistance, assistive technologies, and promotion of home fitness programs are advised in addition to consideration of transportation and housing policies. Clinical decision-making practices take life expectancy into account when prescribing and ordering testing (Jaul & Baron, 2017). Healthy habits that are inculcated in early childhood can improve the quality of life of the elderly.

Chapter 11

42

Ready Reckoner

Developed by top clinicians for use by women and their families

Rx – denotes Allopathic System

Ax – denotes Ayurvedic System

G – Services available at government health facilities.

Chapter 11.1

43

Lifecycle Stage: Fetus (From Conception till Delivery)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Nutrition deficiency in pregnant women 	<ul style="list-style-type: none"> Antenatal checkups (ANCs): general physical examination, vitals—including blood pressure—bodyweight, and dietary counselling. Blood (e.g., Serum alpha-fetoprotein [AFP]) and urine investigations. 	<ul style="list-style-type: none"> Regular ANCs for the mother; 3–7 ANCs (Minimum three—once every trimester; however a visit every month would be preferred). Healthy and balanced diet, including a diet rich in iron & folic acid such as green leafy vegetables, lentils, etc. Regular iron and folic acid supplementation All drugs are in the form of Rasayana (on consultation with qualified practitioner/expert) - Ax Shatavari ksheerpaka (medicated milk prepared with satavar [<i>Asparagus racemosus</i>]) - Ax Adequate and frequent liquid, sweet, and cold meals. E.g., milk and milk preparations, coconut water, mixed vegetable soup.
<ul style="list-style-type: none"> Infections: Tetanus, Diphtheria 		<p>Vaccination: Tetanus toxoid & adult diphtheria (TT/Td); two doses one month apart. Consult your physician for more information.</p>
<ul style="list-style-type: none"> Intrauterine growth restriction (IUGR): Pain in abdomen, diminished fetal movement, diminished abdominal enlargement. 	<p>Radiological Screenings</p> <ul style="list-style-type: none"> Ultrasonography (after doctor's consultation) 	<p>For IUGR</p> <ul style="list-style-type: none"> Regular sonographic assessment for fetal growth. If required, consultation with following specialists is advised: <ul style="list-style-type: none"> Fetal medicine specialist Pediatric cardiologist Pediatric surgeon Pediatrician Clinical geneticist <p>Ax- (On consultation with qualified practitioner/expert) -</p> <ul style="list-style-type: none"> Phalasarpis (Ayurvedic medicine) Shatavarighrita (Ayurvedic medicine) Breathing exercises such as Pranayama Nutritious diet and good sleep
<p>Genetic or chromosomal conditions</p> <ul style="list-style-type: none"> Down's Syndrome, Edward's Syndrome, etc. Neural tube defects Congenital cardiac malformations 	<p>Radiological Screenings</p> <ul style="list-style-type: none"> Anomaly scan; Chrrionic villi sampling for genetic defects 	

Chapter 11.2

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Lifecycle Stage: Birth–Newborn (Day One of Birth)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Low birth weight (LBW<2500 grams) 	Screening to detect <ul style="list-style-type: none"> Phenylketonuria (PKU) 	<ul style="list-style-type: none"> Start breastfeeding within 30 minutes of normal (vaginal) delivery and within 4 hours of Caesarean delivery.
<ul style="list-style-type: none"> Infections: Tuberculosis (TB), Hepatitis, Polio 		<ul style="list-style-type: none"> Immunization: BCG, Hep-B, and OPV
<ul style="list-style-type: none"> Preterm (when birth occurs before the 37th week of pregnancy) 		<ul style="list-style-type: none"> Postnatal care (PNC) <ul style="list-style-type: none"> Home-based newborn care Facility-based newborn care
<ul style="list-style-type: none"> Congenital birth Issues 	Screening to detect <ul style="list-style-type: none"> Congenital hypothyroidism Congenital heart conditions Neonatal adrenal hyperplasia Congenital dislocation of hip Eye defects Other metabolic disorders 	<ul style="list-style-type: none"> Follow your doctor’s recommendations. Consultation with <ul style="list-style-type: none"> Pediatrician Pediatric cardiologist Pediatric surgeon
<ul style="list-style-type: none"> Neonatal jaundice 	<ul style="list-style-type: none"> Skin/oral cavity pallor, yellowish cornea. Sickle cell or other hemoglobinopathies 	<ul style="list-style-type: none"> Follow your doctor’s recommendations.
<ul style="list-style-type: none"> Skin disease such as rashes 		<ul style="list-style-type: none"> If required, consultation with pediatrician
	<ul style="list-style-type: none"> General: Blood Group 	

Chapter 11.3

45

Lifecycle Stage: Expectant Mother (Pregnancy)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<p>(Under 21 years)</p> <p>Anemia: Breathlessness, generalized weakness, distension of abdomen, burping, loss of appetite</p>	<ul style="list-style-type: none"> Screening to detect hemoglobin level Check the body weight at periodic intervals and keep a record [Recommended weight gain in pregnancy (10–12 kg)]. 	<ul style="list-style-type: none"> Healthy and balanced diet, including a diet rich in iron & folic acid: <ul style="list-style-type: none"> Green leafy vegetables Jaggery, black gram, pulses Beetroot, carrot, ripe banana Consult your family physician On consultation with qualified practitioner/expert: <ul style="list-style-type: none"> Amalki (Indian gooseberry or amla) Dadimadi ghrta [contains dadima (pomegranate), dhanya (coriander), chitraka (<i>Plumbago zeylanica</i>), Shringavera (ginger), pippali (long pepper), Ghrta (ghee and water) - Ax
<ul style="list-style-type: none"> HIV 	<ul style="list-style-type: none"> HIV and other sexually transmitted infections 	<ul style="list-style-type: none"> If positive, take HIV medication as recommended by the doctor for prevention of transmission to the child.
<p>Unwed mothers and abortions:</p> <ul style="list-style-type: none"> Behavior suggesting carelessness and neglect Mental stress about the pregnancy Mental health issues: Loss of appetite, altered sleep pattern, excessive acidity and distension, multiple other non-specific features, unable to manage the dual responsibilities of career and child, resulting in the decision to give up their career. 	<ul style="list-style-type: none"> In case of mental health issues, screen for <ul style="list-style-type: none"> IUGR Hypertension 	<ul style="list-style-type: none"> Visit psychiatrist or counsellor (especially in case of recurrent miscarriages and gestational diabetes) Sankhapushpi (<i>Convolvulus pluricaulis</i>/Asian pigeonwings); Kushmandarasayana (Ayurvedic medicine) - Ax Pranayama and yoga
<ul style="list-style-type: none"> Miscarriage: Pain in abdomen, backache, vaginal bleeding or spotting, vaginal discharge 	<ul style="list-style-type: none"> Other ANC-related screenings 	<ul style="list-style-type: none"> If any symptoms of miscarriage appear, consult with obstetrician immediately. To prevent miscarriage (on consultation with qualified practitioner/expert) - Ax: <ul style="list-style-type: none"> Shatavari (<i>Asparagus racemosus</i>) Phalasarpis (Ayurvedic medicine) Kushmandarasayan (herbal formulation) Ayurvedic Panchakarma therapy (for mind and body) as basti (herbal decoctions and medicated oils into the colon through the rectum) and nasya (nasal administration of therapeutic oil) after consultation. Yogasana: Katichalana, Parvatasana, Bhujangasana (on consultation with qualified practitioner/expert).
<ul style="list-style-type: none"> Eye problems 	<ul style="list-style-type: none"> In case of hypertension, retinal evaluation is recommended. 	<ul style="list-style-type: none"> Retinal evaluation by an ophthalmologist.

Chapter 11.3

46

Lifecycle Stage: Expectant Mother (Pregnancy) (Cont.)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Gestational diabetes: Excessive urination with nocturia (excessive urination at night), excessive weakness, intense vaginal itching 	<ul style="list-style-type: none"> Impaired glucose metabolism, big baby (macrosomia), and blood in urine 	<ul style="list-style-type: none"> Consult an obstetrician as soon as symptoms appear.
<ul style="list-style-type: none"> Complications in pregnancy such as pregnancy-induced hypertension, anemia, etc. Complications of delivery such as rupture uterus. 	<ul style="list-style-type: none"> Adequate screening for congenital anomalies: blood and radiological screenings Chromosomal abnormality Luteal phase defect; defective placentation trauma Anatomical factors Infections Endocrine dysfunction 	<ul style="list-style-type: none"> Consult with obstetrician
(21–34 years)		
<ul style="list-style-type: none"> On medication for any health issue 	<ul style="list-style-type: none"> If on teratogenic medication: Screening for congenital anomalies through blood investigation such as serum AFP and radiological investigations such as anomaly scan 	<ul style="list-style-type: none"> Only take medicine as advised.
<ul style="list-style-type: none"> Skin-related chronic illnesses such as psoriasis, eczema 		<ul style="list-style-type: none"> Psoriasis/eczema: Apply medications if needed and consult a Dermatologist.
<ul style="list-style-type: none"> Pregnancy-induced hypertension 	<ul style="list-style-type: none"> Blood pressure 	<ul style="list-style-type: none"> In case of pregnancy-induced hypertension complications, a visit to the ophthalmologist for retinal evaluation is recommended.
<ul style="list-style-type: none"> Gestational diabetes: Excessive urination with nocturia (excessive urination at night), excessive weakness, intense vaginal itching 	<ul style="list-style-type: none"> For gestational diabetes: Impaired glucose metabolism big baby- (macrosomia), and blood in urine 	<ul style="list-style-type: none"> For gestational diabetes, consult with obstetrician as soon as symptoms appear.
		<p>General Action Points</p> <ul style="list-style-type: none"> Avoid tobacco, smoking, e-cigarettes, and second-hand passive smoking during pregnancy Eat nutritious diet

Chapter 11.3

47

Lifecycle Stage: Expectant Mother (Pregnancy) (Cont.)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<p>(34 years & above)</p> <ul style="list-style-type: none"> Miscarriages 		<ul style="list-style-type: none"> If any symptoms of miscarriage appear, consult with obstetrician immediately.
<ul style="list-style-type: none"> High-risk pregnancy 		<ul style="list-style-type: none"> Utilization of full package of antenatal care (G)
<ul style="list-style-type: none"> Pregnancy-induced hypertension 	<ul style="list-style-type: none"> Blood pressure 	<ul style="list-style-type: none"> In case of pregnancy-induced hypertension complications, a visit to the ophthalmologist for retinal evaluation is recommended.
<ul style="list-style-type: none"> Chromosomal/congenital abnormalities such as cleft lip and palate, Down's syndrome, etc. 	<ul style="list-style-type: none"> Screening to detect congenital anomalies 	
<ul style="list-style-type: none"> Gestational diabetes: Excessive urination with nocturia (excessive urination at night), excessive weakness, intense vaginal itching 	<ul style="list-style-type: none"> For gestational diabetes: Screen for Impaired glucose metabolism, big baby (macrosomia), impaired sugar level, and blood in urine 	<ul style="list-style-type: none"> For gestational diabetes, consult with obstetrician as soon as symptoms appear.
<ul style="list-style-type: none"> Psoriasis 		<ul style="list-style-type: none"> Consult a dermatologist
		<p>General Action Points</p> <ul style="list-style-type: none"> Institutional delivery (G) IFA tablet and deworming (G) If required, go for <ul style="list-style-type: none"> cardiologist consultation dermatologist consultation psychological consultation Immunization for all expecting mothers: Td-1, Td-2, or Td-Booster*** <p>(*** One dose if previously vaccinated within 3 years)</p>

Chapter 11.4

48

Lifecycle Stage: Postpartum Period (6 weeks or 42 days post birth)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> • Postpartum depression: <ul style="list-style-type: none"> ○ Negative feeling towards infant ○ Tearfulness ○ Hopelessness ○ Carelessness towards baby/Loss of interest ○ Altered sleep/wake patterns ○ Irritability ○ Palpitation • Psychosis: <ul style="list-style-type: none"> ○ Fear ○ Restlessness ○ Confusion with hallucination ○ Delusion ○ Disorientation ○ Suicidal tendency ○ Infanticidal impulses 	<ul style="list-style-type: none"> • Mental health evaluation (if symptoms of postpartum psychosis or schizophrenia are exhibited) 	<ul style="list-style-type: none"> • For psychosis: <ul style="list-style-type: none"> ○ Psychiatric consultation (Rx) ○ Rasayan chikitsa soon after delivery (on consultation with a qualified doctor) - Ax • For postpartum depression: <ul style="list-style-type: none"> ○ Counselling and lifestyle modifications ○ Bala + Ashwagandha + Giloya ksheerpaka - Ax ○ Shankhpushpi (<i>Convolvulus pluricaulis</i>) - Ax ○ Breathing exercises: Pranayama Yogasana (sarvangasana, sinhasana, shavasana) (on consultation with a qualified doctor) - Ax
<ul style="list-style-type: none"> • Postpartum stroke 		<ul style="list-style-type: none"> • Consult a neurologist
<ul style="list-style-type: none"> • Postpartum cardiovascular disease • Postpartum cardiomyopathy (a type of heart failure) 		<ul style="list-style-type: none"> • Consult a cardiologist
<ul style="list-style-type: none"> • Nutritional deficiencies such as anemia: Excessive weakness that is not relieved by rest, loss of appetite, inadequate milk production 		<ul style="list-style-type: none"> • On consultation with a qualified doctor/vaidya: <ul style="list-style-type: none"> ○ Dashmoola (Ayurvedic formulation: concoction of dried roots of ten different plants) ○ Jeerakadhyarishta (Ayurvedic generic combination including cumin seeds/jeera) ○ Latakaranj (Ayurvedic herb-<i>Caesalpinia bonduc</i>), Shatavari, and vidariksheerpak (antioxidant and hepatoprotective herb) ○ Proper nutritious diet; plate with food items of different colors • Consult a dietician/nutritionist
<ul style="list-style-type: none"> • Added responsibilities/burnout; lactating mothers: lack of will/time/supportive health conditions for exclusive breastfeeding. 	<ul style="list-style-type: none"> • Postpartum hemorrhage: evaluation every 2–3 hours initially 	<ul style="list-style-type: none"> • Routine diet examinations and counselling every 3, 6, 9, 12 months • Lactational counsellor • Adequate postpartum medical care

Chapter 11.5

49

Lifecycle Stage: Neonatal (0–1 month)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Neonatal jaundice: Skin/oral cavity pallor, yellowish cornea. 		<ul style="list-style-type: none"> Start breastfeeding within 30 minutes of normal (vaginal) delivery and within 4 hours of Caesarean delivery Adequate breastfeeding, especially in case of neonatal jaundice.
<ul style="list-style-type: none"> LBW: Unable to feed properly, low-pitched cry, small-sized baby, wrinkled skin 		<ul style="list-style-type: none"> Protein-rich diet for the mother; e.g., milk-rich diet Maintain breast hygiene/feeding Encourage exclusive breastfeeding Attend growth monitoring and promotion sessions
<ul style="list-style-type: none"> Congenital issues such as murmurs, cleft lip/palate, cardio-respiratory diseases, congenital heart conditions, hearing impairment etc. 		<ul style="list-style-type: none"> Neonatal examination General physical examination Consultation for congenital defects such as cleft palate, cleft lip, and others
<ul style="list-style-type: none"> Skin infections/diseases 		<ul style="list-style-type: none"> Take proper care of skin. If problem persists, consult a family physician or a dermatologist.

Chapter 11.6

50

Lifecycle Stage: Infancy (0–1 year)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Malnutrition 	<ul style="list-style-type: none"> Weight of the baby 	<ul style="list-style-type: none"> Exclusive breastfeeding for the first six months Complementary feeding: Add other healthy liquid/semi-solid food after six months; avoid sugary drinks. Nutritional supplements (on consultation with a qualified expert–family physician/dietician/nutritionist)
<ul style="list-style-type: none"> Eye problems 	<ul style="list-style-type: none"> If the child was born premature, go for <ul style="list-style-type: none"> Retinal evaluation to rule out retinopathy and prematurity-associated disabilities Evaluation of vitamin A deficiency 	
<ul style="list-style-type: none"> Infections: Polio, measles, rubella, diphtheria, rotavirus 		<ul style="list-style-type: none"> Immunization (as per national guidelines or the advice of your pediatrician) <ul style="list-style-type: none"> At 6 weeks: OPV-1, Pentavalent-1, RVV-1, fIPV-1, PCV-1* At 10 weeks: OPV-2, Pentavalent-2, RVV-2 At 14 weeks: OPV-3, Pentavalent-3, fIPV-2, RVV-3, PCV-2* At 9–12 months: Measles & Rubella (MR)-1, JE-1**, PCV-Booster* 16–24 months: MR-2, JE-2**, DPT-Booster-1, OPV-Booster <i>[*PCV in selected states/districts: Bihar, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh (selected districts), and Rajasthan; in Haryana as state initiative]</i> <i>**JE in endemic districts only]</i>
<ul style="list-style-type: none"> Atopic dermatitis Food allergies 		<ul style="list-style-type: none"> Consult your pediatrician
<ul style="list-style-type: none"> Issues with prematurely born baby: Poorly developed reflexes, delayed developmental milestones 		<ul style="list-style-type: none"> Consult your family physician/pediatrician. Ax - For premature babies, Laghupanchamool (group of roots of five small plants: Shalaparni, Prshniparni, Brhati, Kantakari, and Gokshura or Eranda) and Siddha cow milk. For mother, Bala + Ashwagandha + Shatavari Siddha ksheer (on consultation with a qualified expert)
<ul style="list-style-type: none"> Delayed developmental milestones 		<ul style="list-style-type: none"> Check the developmental milestones at 2, 4, 6, 9 months and at 1 year. Use the milestone checklist to assess the growth of the child.
<ul style="list-style-type: none"> Oral health issues 		<ul style="list-style-type: none"> Clean the child's gums using a finger wrapped in clean gauze dipped in warm water at least twice daily or after feeding

Chapter 11.7 (a)

51

Lifecycle Stage: Childhood (1–5 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Poor nutrition 		<ul style="list-style-type: none"> Provide supplementary nutrition, vitamin A supplementation (after consultation with the pediatrician)
<ul style="list-style-type: none"> Ophthalmic issues 	<ul style="list-style-type: none"> Mandatory eye checkup when the child starts going to school. 	<ul style="list-style-type: none"> Get examined by an ophthalmologist
<ul style="list-style-type: none"> Delayed growth 		<ul style="list-style-type: none"> Growth monitoring of the child at 15, 18, 24, and 30 months and then at 3 years, 4 years, and 5 years. Use the milestone checklist to assess the growth of the child.
<ul style="list-style-type: none"> Dental caries 	<ul style="list-style-type: none"> Cavities in teeth; swelling in gums 	<ul style="list-style-type: none"> Regular oral health checkup (every six months); emphasis on preventive dentistry in the form of sealants rather than restorations Regular monitoring for sugary food intake
<ul style="list-style-type: none"> Food allergies; h/o allergy in parents or grandparents; dry and itchy skin 	<ul style="list-style-type: none"> Identify the allergen 	<ul style="list-style-type: none"> For food allergies, avoid food items that trigger allergy
<ul style="list-style-type: none"> Infectious diseases: typhoid, cholera, pneumonia 		<ul style="list-style-type: none"> Consult a pediatrician Immunization: DPT-Booster-2

Chapter 11.7 (b)

52

Lifecycle Stage: Childhood (6–10 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Infections such as diphtheria, tetanus Food allergies: H/o allergy in parents or grandparents; dry and itchy skin 		<ul style="list-style-type: none"> 10 years: Tetanus & adult diphtheria (td) vaccination (Follow the UIP schedule) - G Cervical cancer vaccination at 9–12 years (a total of three doses; as per the schedule) Food allergies: Avoid food items that trigger allergy
<ul style="list-style-type: none"> Health impacts of excessive internet/digital device usage Dental issues 		<ul style="list-style-type: none"> Reduce screen exposure Consult a dentist for regular oral health checkups (every six months)
<ul style="list-style-type: none"> Mental health issues: <ul style="list-style-type: none"> Aggression Depression Borderline personality disorders Adapting to bodily changes Eating disorders such as bulimia and anorexia 	<ul style="list-style-type: none"> Mental health conditions 	<ul style="list-style-type: none"> Psychological consultation with a qualified expert
<ul style="list-style-type: none"> Nutrition deficiency 	<ul style="list-style-type: none"> Iron deficiency, other vitamin deficiency tests 	<ul style="list-style-type: none"> Iron deficiency, other vitamin deficiency tests
<ul style="list-style-type: none"> Eye problems 	<ul style="list-style-type: none"> Refractive errors 	<ul style="list-style-type: none"> Consult an ophthalmologist for annual ophthalmic evaluation for refractive error.
<ul style="list-style-type: none"> Menarche Unsafe sexual practices Sexual exploitation 		<ul style="list-style-type: none"> Consult a gynecologist
<ul style="list-style-type: none"> Scoliosis (sideways curvature of the spine) 	<ul style="list-style-type: none"> Incorrect posture 	<ul style="list-style-type: none"> Consult an orthopedic surgeon
<ul style="list-style-type: none"> NCDs such as diabetes, blood pressure 	<ul style="list-style-type: none"> Blood sugar test (random/fasting) Blood pressure 	<ul style="list-style-type: none"> Adopt healthy habits such as <ul style="list-style-type: none"> Eating nutritious food Regular physical activity: strength, cardio, yoga, or a combination.

Chapter 11.8 (a)

53

Lifecycle Stage: Adolescence (11–14 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Malnutrition: Muscle wasting, unable to do daily routine, loss of appetite Stunting: Short height, reduced diet, reduced growth, repeated infections Thinning: Loss of body weight 	Screenings for <ul style="list-style-type: none"> Malnutrition: <ul style="list-style-type: none"> Nutritional deficiencies Assess weight, height, levels of hormones such as thyroid stimulating hormone (TSH) Stunting: <ul style="list-style-type: none"> Endocrinal disorder Thinning: <ul style="list-style-type: none"> Chronic disease 	<ul style="list-style-type: none"> Eat a healthy diet Ax - Malnutrition (on consultation with qualified practitioner/expert): <ul style="list-style-type: none"> Kushmandarasayan Bala + Ashwagandha ksheerpaka
<ul style="list-style-type: none"> Excessive social media use 	<ul style="list-style-type: none"> Time spent on mobile/apps 	<ul style="list-style-type: none"> Limit online activities Exercise caution while sharing information online on social media.
<ul style="list-style-type: none"> Early puberty: Early periods, early development of breasts and other characteristics Pre-menstrual syndrome (PMS): Breast-related issues prior to menses, weight gain, vomiting/diarrhea before menses, acne 	<ul style="list-style-type: none"> Endocrinal Disorders 	<ul style="list-style-type: none"> Consult a gynecologist & an endocrinologist PMS: Avoid excess intake of coffee, tea, and salt
<ul style="list-style-type: none"> Smoking, substance misuse, and other addictions Mental health issues such as stress, anxiety, and depression Unsafe sexual practices Eating disorders: Bulimia, anorexia 		<ul style="list-style-type: none"> Children aged 13 years and above must undergo a psychological consultation to rule out mental health issues and seek therapy and treatment if needed. Do not chew/smoke tobacco or drink alcohol.
<ul style="list-style-type: none"> Dental issues 	<ul style="list-style-type: none"> Cavities in teeth; discoloration 	<ul style="list-style-type: none"> Visit a dentist for regular oral health checkups (every six months)
<ul style="list-style-type: none"> Eye problems 	<ul style="list-style-type: none"> Ophthalmic evaluation for refractive error 	<ul style="list-style-type: none"> Consult an ophthalmologist
<ul style="list-style-type: none"> Acne 		<ul style="list-style-type: none"> Consult a dermatologist
<ul style="list-style-type: none"> NCDs such as diabetes 	<ul style="list-style-type: none"> NCDs 	<ul style="list-style-type: none"> Adopt healthy habits such as <ul style="list-style-type: none"> Eating nutritious food Regular physical activity: strength, cardio, yoga, or a combination

Chapter 11.8 (b)

54

Lifecycle Stage: Adolescence (15–19 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Anemia: pallor, weakness 	<ul style="list-style-type: none"> Haemoglobin test 	<ul style="list-style-type: none"> Healthy and balanced diet, including a diet rich in iron and folic such as <ul style="list-style-type: none"> Green leafy vegetables Jaggery, black gram, lentils, pulses
<ul style="list-style-type: none"> Cancers 	<ul style="list-style-type: none"> Oral cancer: Oral visual inspection (OVI) by trained healthcare professionals every two years (especially in case of tobacco/alcohol/areca nut/mixed use) 	<ul style="list-style-type: none"> Oral cancers: Do not use tobacco in any form. Cervical cancer: Vaccination [if not taken earlier (a total of three doses at 9–12 years as per the schedule)]
<ul style="list-style-type: none"> Menstrual hygiene Metabolic syndromes 		<ul style="list-style-type: none"> Menstrual hygiene: Change the sanitary pad, menstrual cup, or tampon periodically. Metabolic syndromes: Consult an endocrinologist
<ul style="list-style-type: none"> Pre-menstrual syndrome Poly-cystic ovary syndrome (PCOS): Irregular or very light periods, excessive hair growth, weight gain, acne, etc. 		<ul style="list-style-type: none"> Consult a gynecologist
<ul style="list-style-type: none"> Dental issues 	<ul style="list-style-type: none"> Cavities in teeth; discoloration 	<ul style="list-style-type: none"> Regular oral health checkup (every six months)
<ul style="list-style-type: none"> Eye defects 	<ul style="list-style-type: none"> Ophthalmic evaluation for refractive error 	<ul style="list-style-type: none"> Yearly eye checkup with an ophthalmologist
<ul style="list-style-type: none"> Acne: Multiple papules, pustules, or nodules 	<ul style="list-style-type: none"> Assess for hormonal levels; examine medications 	<ul style="list-style-type: none"> Use salicylic acid face wash Avoid use of oil Consult a dermatologist
<ul style="list-style-type: none"> Mental health issues <ul style="list-style-type: none"> Anxiety and depression Weight conscious Suicidal thoughts Loss of interest Irritability Body image concerns 	<ul style="list-style-type: none"> Depressive disorder, personality disorder, schizophrenia 	<ul style="list-style-type: none"> Psychological counselling in case of any such issues Utilization of ARSH (Adolescent Reproductive Sexual Health) clinics wherever available Ax - Shankhpushpi Ax - Ashwagandha Yoga and Pranayama (on consultation with qualified practitioner/expert)
<ul style="list-style-type: none"> Smoking, substance misuse, and other addictions 		<ul style="list-style-type: none"> Do not chew/smoke tobacco or drink alcohol
<ul style="list-style-type: none"> Infection: Tetanus 		<ul style="list-style-type: none"> Immunization at 16 years: Td

Chapter 11.9

Lifecycle Stage: Young Women (20–44 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Domestic violence (Helplines**) 		<ul style="list-style-type: none"> Call the helpline numbers (Page no- 64 & 65)
<ul style="list-style-type: none"> Dental issues 	<ul style="list-style-type: none"> Cavities in teeth; discoloration 	<ul style="list-style-type: none"> Regular oral health checkup (every six months)
<ul style="list-style-type: none"> Osteoporosis: may have knee pain, backpain 	<ul style="list-style-type: none"> Bone mineral density test 	<ul style="list-style-type: none"> Consult an orthopedist
<ul style="list-style-type: none"> PMS: Breast-related issues prior to periods, weight gain, vomiting and diarrhea before periods Unplanned pregnancy 		<ul style="list-style-type: none"> Consult a gynecologist For PMS: Avoid excess intake of coffee, tea, and salt
<ul style="list-style-type: none"> Cancers: Breast cancer - lump/mass in the breast; cervical cancer, oral cancer etc. 	<ul style="list-style-type: none"> Cancer screenings Breast cancer: For 40 years and above (every two years)–self breast examination, clinical breast examination, mammography/ultrasonography Cervical cancer: Above 25/30 years–Pap smear/VIA (visual inspection using 5% acetic acid) every five years [Even those who do not have any signs and symptoms and irrespective of sexual history or human papilloma virus (HPV) vaccination status] Oral cancer: OVI by trained healthcare professionals every two years (in case of tobacco/alcohol/areca nut/mixed use) Melanoma and other cancers: Biopsy, ultrasonography, MRI 	<ul style="list-style-type: none"> Cervical cancer: Vaccination If not vaccinated earlier, can do so up to 45 years of age (a total of three doses as per the schedule)

Chapter 11.9

56

Lifecycle Stage: Young Women (20–44 years) (Cont.)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> • Eye defects 		Go for yearly Ophthalmic evaluation
<ul style="list-style-type: none"> • Skin problems such as melanoma (blackish/ brownish spots on the face), acne rosacea (erythema over face, itching, burning on exposure to heat) 	<ul style="list-style-type: none"> • Acne rosacea: Dermoscopy 	<ul style="list-style-type: none"> • Consult a dermatologist
Mental health issues: <ul style="list-style-type: none"> • Societal pressure • Behavioral problems, anxiety (feeling restless, tensed, palpitations, rapid breathing, shivering), • Depression (persistent low mood, feeling of worthlessness, poor concentration, thoughts of self-harm, etc.) • Childbearing: Fear related to body changes, weight gain, career image 		<ul style="list-style-type: none"> • Go for mental health counselling (Family physician/psychologist)
		Adopt healthy habits: <ul style="list-style-type: none"> • Nutritious food intake • Regular physical activity (strength, cardio, yoga, or a combination) • Have a routine sleep cycle of 6–8 hours • Do not consume tobacco in any form or drink alcohol • Go for yearly complete body examination

Chapter 11.10

57

Lifecycle Stage: Middle-Aged Women (45–59 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
Menopause: <ul style="list-style-type: none"> • Irregular menstrual cycle • Scanty flow • Hot flashes (sudden feeling of heat) • Mood changes • Weight gain • Decreased libido • Night sweating 	Screen for <ul style="list-style-type: none"> • Perimenopause (around the menopause stage) or pathological menopause 	<ul style="list-style-type: none"> • Consult a gynecologist/family physician • On consultation with qualified practitioner/expert - Ax <ul style="list-style-type: none"> ○ Ashwagandha ○ Shatavari ○ Gokshura (<i>Tribulus terrestris</i>) ○ Amalki (Amla) ○ Guduchi (Giloy/<i>Tinospora Cordifolia</i>)
<ul style="list-style-type: none"> • Cancer: Significant weight loss, decreased appetite, night sweats • Breast cancer: Lump/mass in the breast 	<ul style="list-style-type: none"> • Cervical cancer: Pap smear/VIA every five years. • Breast cancer: For 40 years & above (every two years)—self breast examination, clinical breast examination, mammography/ultrasonography. • Oral cancer: OVI by trained healthcare professionals every two years (in case of tobacco/alcohol/areca nut/mixed use) 	<ul style="list-style-type: none"> • Utilize screenings facilities available at health and wellness centres (G)
<ul style="list-style-type: none"> • Obesity: Excess weight gain • Hypertension: Persistent headache, high blood pressure • Heart disease: Chest pain/tightness, shortness of breath, pain and numbness in upper abdomen/back, etc. 	<ul style="list-style-type: none"> • Blood pressure • Diabetes: Blood sugar test (random/fasting) • Blood cholesterol 	<ul style="list-style-type: none"> • Maintain healthy weight: Yoga and Pranayama (under expert guidance) - Ax
<ul style="list-style-type: none"> • Stroke 	<ul style="list-style-type: none"> • Blood test to check cholesterol and blood sugar level • Pulse (for irregular heartbeat) 	Consult a family physician or a neurologist
<ul style="list-style-type: none"> • Eye defects 	<ul style="list-style-type: none"> • Sensory impairment 	<ul style="list-style-type: none"> • Ophthalmic evaluation to rule out refractive error, cataract, glaucoma, and eye manifestations of systemic diseases such as diabetes and hypertension

Chapter 11.10 (cont.)

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Lifecycle Stage: Middle-Aged Women (45–59 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Dental issues: Pain, tooth decay, dry mouth, loss of teeth, etc. 	<ul style="list-style-type: none"> Periodontal diseases and dental problems 	<ul style="list-style-type: none"> Consult a dentist for regular oral health checkups (every six months)
<ul style="list-style-type: none"> Stress and depression: Loss of appetite, altered sleep pattern, excessive acidity and distention, multiple other non-specific features 		<ul style="list-style-type: none"> Seek counselling from a qualified expert psychologist/psychiatrist/family physician Start constructive activities
<ul style="list-style-type: none"> Alopecia (hair loss) Xerosis 	<ul style="list-style-type: none"> Screening for xerosis: Look out for dry skin and frequent drying of the mouth 	<ul style="list-style-type: none"> Consult a dermatologist
<ul style="list-style-type: none"> Xerostomia (dry mouth) 		<ul style="list-style-type: none"> Consult an ENT specialist
		<p>Inculcate the following healthy habits:</p> <ul style="list-style-type: none"> Nutritious food intake Regular physical activity Adequately sleep Avoid alcohol consumption and tobacco use. Keep yourself hydrated, and take saliva secreting agents such as lemon.

Chapter 11.11

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Lifecycle Stage: Senior Women (60–80 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Bone disorders 	Screenings for: <ul style="list-style-type: none"> Bone mineral density test (Annually) 	<ul style="list-style-type: none"> Use open gyms, free calcium supplements, regular physiotherapy
<ul style="list-style-type: none"> Hearing impairment Vision impairment 	<ul style="list-style-type: none"> Hearing and vision impairment (Annually) 	<ul style="list-style-type: none"> Ophthalmic evaluation to rule out refractive error, glaucoma, cataract and age-related macular degeneration, and eye manifestations of systemic diseases like diabetes and hypertension Auditory evaluation by an ENT specialist Counselling for hearing aids
<ul style="list-style-type: none"> Diabetes Hypertension 	<ul style="list-style-type: none"> Blood Sugar Test (Random/Fasting) Blood Pressure 	<ul style="list-style-type: none"> Consult a Doctor Take advised medications on time Have a healthy diet Do light physical activity
<ul style="list-style-type: none"> Loss of teeth 	<ul style="list-style-type: none"> Periodontal diseases & Dental problems 	<ul style="list-style-type: none"> Regular oral health check-up (every 6 months)
<ul style="list-style-type: none"> Cancers 	<ul style="list-style-type: none"> Cancers: <ul style="list-style-type: none"> Cervical cancer: Pap Smear/VIA (Visual Inspection using 5% Acetic acid), every 5 years, till 65 years of age. 65 years of age or older with consistently negative results for cervical cancer over the past 15 years can stop screening. Breast cancer: every 2 years (till 75 years): Self breast examination, clinical breast examination, mammography/ultrasonography. Oral cancer-Oral Visual Inspection (OVI) by trained healthcare professionals every 2 years (in case of use of tobacco /alcohol / areca nut / mixed use) 	<ul style="list-style-type: none"> Follow your doctors advice.
<ul style="list-style-type: none"> Xerosis/Xerostomia: dry skin and frequent drying of the mouth 		<ul style="list-style-type: none"> Keep yourself hydrated and take saliva secreting agents like lemon, etc.
<ul style="list-style-type: none"> Skin diseases like pruritus & seborrheic dermatitis: scaling on scalp and nasolabial folds Alopecia (Hair loss) 		<ul style="list-style-type: none"> Skin diseases: Avoid extreme temperature changes and consult a Dermatologist.
<ul style="list-style-type: none"> Loneliness Dementia- Loss of memory, confusion, wandering and getting lost in neighbourhood Depression: Loss of appetite, altered sleep pattern, excessive acidity and distention Physical slow down 		<ul style="list-style-type: none"> Mental health: <ul style="list-style-type: none"> Counselling with a psychologist Yoga & Pranayama -Ax Ashwagandha-(Withania somnifera) – (on consultation with qualified practitioner/expert)-Ax If available, join clubs for senior citizens

Chapter 11.11 (cont.)

Lifecycle Stage: Senior Women (60–80 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> General weakness and loss of muscle mass 		Adopt healthy habits: <ul style="list-style-type: none"> Eating nutritious food with enough protein intake Light physical activity such as walking, yoga, etc. Adequate sleep Do not smoke or drink alcohol.

Chapter 11.12

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Lifecycle Stage: Long Survivors (Above 80 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> Hearing loss 	<ul style="list-style-type: none"> Impairment 	<ul style="list-style-type: none"> Avoid loud noises, and visit an ENT specialist
<ul style="list-style-type: none"> Vision loss 	<ul style="list-style-type: none"> Impairment, cataract, glaucoma, macular degeneration 	<ul style="list-style-type: none"> Consult an ophthalmologist
<ul style="list-style-type: none"> Loss of teeth 	<ul style="list-style-type: none"> Periodontal diseases 	<ul style="list-style-type: none"> Oral health checkup (every six months)
<ul style="list-style-type: none"> Heart diseases: Chest pain or discomfort, upper back or neck pain, indigestion, heartburn, nausea, etc. 	<ul style="list-style-type: none"> Blood cholesterol (Annually) 	<ul style="list-style-type: none"> Consult a cardiologist
<ul style="list-style-type: none"> Osteoporosis and other bone disorders: Frequent fractures, bone pain 	<ul style="list-style-type: none"> Bone density test (Frequency: two years) 	<ul style="list-style-type: none"> Injury prevention Increase vitamin D intake and exposure to sunlight Take calcium supplements Consult an orthopedist
<ul style="list-style-type: none"> NCDs such as diabetes and hypertension 	<ul style="list-style-type: none"> Blood sugar test (random/fasting) Blood pressure 	<ul style="list-style-type: none"> Continuous care of existing condition(s) Regular physiotherapy Healthy habits such as <ul style="list-style-type: none"> Nutritious food intake Light physical activity such as walking, yoga, and light weight bearing Exercises for osteoporosis Use open gyms Have adequate sleep Do not use tobacco and alcohol
<ul style="list-style-type: none"> Various cancers, especially breast and cervical cancers 	<ul style="list-style-type: none"> Oral cancer: OVI by a trained healthcare professional every two years (in case of tobacco/alcohol/areca nut/mixed use) 	
<ul style="list-style-type: none"> Alopecia: Decreasing hair density or excessive or complete hair loss 	<ul style="list-style-type: none"> Screening for any chronic illness, anemia, hypothyroid, vitamin D deficiency 	<ul style="list-style-type: none"> Wholesome nutrition and stress-free environment at home

Chapter 11.12 (cont.)

Lifecycle Stage: Long Survivors (Above 80 years)

Symptoms/Issues	Screenings (if applicable)	Actions at Individual Level
<ul style="list-style-type: none"> • Xerosis/Xerostomia: Dry skin and frequent drying of mouth • Skin problems such as pruritus: dry, flaky skin 		<ul style="list-style-type: none"> • For dry skin: <ul style="list-style-type: none"> ○ Use less soap ○ Use moisturizers ○ Avoid using extremely hot water for bathing
<ul style="list-style-type: none"> • Stress and depression • Hopelessness: Mood swings, persistent sadness • Dementia: Loss of memory; confusion; wandering and getting lost in the neighborhood; difficulty speaking, understanding, and expressing thoughts • Loneliness 		<ul style="list-style-type: none"> • Seek mental health counselling by a psychologist • Seek family support
<ul style="list-style-type: none"> • General weakness and loss of muscle mass 		<ul style="list-style-type: none"> • Eat healthy and protein-rich diet.

National Immunization Schedule (NIS) for Infants, Children & Pregnant Women

Vaccine	When to give	Dose	Route	Site
For Pregnant Women				
TT-1	Early in pregnancy	0.5 ml	Intra-muscular	Upper Arm
TT-2	4 weeks after TT-1*	0.5 ml	Intra-muscular	Upper Arm
TT- Booster	If received 2 TT doses in a pregnancy within the last 3 yrs*	0.5 ml	Intra-muscular	Upper Arm
For Infants				
BCG	At birth or as early as possible till one year of age	0.1ml (0.05ml until 1 month age)	Intra-dermal	Left Upper Arm
Hepatitis B - Birth dose	At birth or as early as possible within 24 hours	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
OPV-0	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1, 2 & 3	At 6 weeks, 10 weeks & 14 weeks (OPV can be given till 5 years of age)	2 drops	Oral	Oral
Pentavalent 1, 2 & 3	At 6 weeks, 10 weeks & 14 weeks (can be given till one year of age)	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Rotavirus#	At 6 weeks, 10 weeks & 14 weeks (can be given till one year of age)	5 drops	Oral	Oral
IPV	Two fractional dose at 6 and 14 weeks of age	0.1 ml	Intra dermal two fractional dose	Intra-dermal: Right upper arm
Measles /MR 1 st Dose\$	9 completed months-12 months. (can be given till 5 years of age)	0.5 ml	Sub-cutaneous	Right upper Arm
JE - 1**	9 completed months-12 months.	0.5 ml	Sub-cutaneous	Left upper Arm
Vitamin A (1 st dose)	At 9 completed months with measles-Rubella	1 ml (1 lakh IU)	Oral	Oral
For Children				
DPT booster-1	16-24 months	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Measles/ MR 2 nd dose \$	16-24 months	0.5 ml	Sub-cutaneous	Right upper Arm
OPV Booster	16-24 months	2 drops	Oral	Oral
JE-2	16-24 months	0.5 ml	Sub-cutaneous	Left Upper Arm
Vitamin A*** (2nd to 9th dose)	16-18 months. Then one dose every 6 months up to the age of 5 years.	2 ml (2 lakh IU)	Oral	Oral
DPT Booster-2	5-6 years	0.5 ml.	Intra-muscular	Upper Arm
TT	10 years & 16 years	0.5 ml	Intra-muscular	Upper Arm

- *Give TT-2 or Booster doses before 36 weeks of pregnancy. However, give these even if more than 36 weeks have passed. Give TT to a woman in labour, if she has not previously received TT.
- **JE Vaccine is introduced in select endemic districts after the campaign.
- *** The 2nd to 9th doses of Vitamin A can be administered to children 1-5 years old during biannual rounds, in collaboration with ICDS.
- #Phased introduction, at present in Andhra Pradesh, Haryana, Himachal Pradesh and Orissa from 2016 & expanded in Madhya Pradesh, Assam, Rajasthan, and Tripura in February 2017 and planned in Tamil Nadu & Uttar Pradesh in 2017.
- \$ Phased introduction, at present in five states namely Karnataka, Tamil Nadu, Goa, Lakshadweep and Puducherry. (As of Feb' 2017)

Source: Ministry of Health & Family Welfare, Government of India

Helpline Numbers (In India)

Women Helpline	1091
Women Helpline (Domestic Abuse)	181
Police	100
Central Social Welfare Board -Police	1091/1291, (011) 23317004
National Commission for Women	7827170170
All India Women's Conference	10921/(011) 23389680
Shakti Shalini	10920
Shakti Shalini - women's shelter	(011) 24373736/24373737
JAGORI	(011) 26692700/+918800996640
Joint Women's Programme (also has branches in Bangalore, Kolkata, Chennai)	(011) 246198
Saheli - a women's organization	(011) 24616485 (Saturdays)
Nirmal Niketan	(011) 27859158
Nari Raksha Samiti	(011) 23973949

Source: <http://www.ncw.nic.in/helplines>

Helpline Numbers (In India)

RAHI Recovering and Healing from Incest. A support center for women survivors of child sexual abuse	(011) 26238466/26224042/ 26227647
SAARTHAK	(011) 26853846/26524061
Sakshi-violence intervention center	(0124) 2562336/5018873
Central Social Welfare Board -Police	1091/1291, (011) 23317004
Counselling Services for Women in Distress-Organised by Delhi Police	3317004
National Human Rights Commission	(011) 23385368/9810298900
Helpline for Breathing Problems- Organised by Better Breathers Club of India	9628015969/9632154536/ 9628005278

Source: <http://www.ncw.nic.in/helplines>

Chapter 12

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Yoga (for different stages of life)

Age Group: Childhood

YOGIC SUKSHMA VYAYAMA (Micro Circulation Practices): Practices for loosening and strengthening the joints

- Neck movement – Left and right movement (Road crossing movement)
- Neck movement – Up and down (Watch sky and earth)
- Hands up and down (Fly with your wings)
- Hands rotation (Throw the ball)
- Shoulder rotation
- Shaking wrist
- Back movement – Forward and backward (Touch the sky and touch the floor/toes)
- Back – Twisting movement (Pass the ball to other)
- Back – Side bending (See-saw movement)
- Butterfly movement (To fly like a butterfly)
- Ankles – Gulf Naman (Inward and outward bending), Gulf Chakr (Rotation)

YOGASANAS (2–3 asanas from each series):

STANDING POSTURES

- Tadasana (Palm tree posture)
- Vrikshasana (Tree posture)
- Ashvasanchalan (Horse riding posture)
- Parvatasana (Mountain posture)

SITTING POSTURES

- Ustrasana (Camel posture)
- Shashankasana (Rabbit posture)
- Mandukasana (Frog posture)
- Vakrasana (Twisting posture)
- Gomukhasana (Cow posture)
- Kagasana (Crow posture)
- Simhasana (Roaring lion posture)

PRONE POSTURES

- Makarasana (Crocodile posture)
- Saral Bhujangasana (Cobra posture)
- Dhanurasana (Bow posture)
- Balasana (Child posture)

SUPINE POSTURES

- Setubandhasana (Bridge posture)
- Saral Matsyasana (Fish posture)
- Shavasana (Starfish posture)

PRANAYAMA:

- Deep breathing
- Bhramari
- Krida practices
- Rain clap
- Flower clap
- Special clap
- Laughing practice
- Freeze movement (Krida)

Age Group: Adolescents

YOGA PRACTICES

YOGIC SUKSHMA VYAYAMA (Micro Circulation Practices):

- Neck movements:
 - Neck rotation (clockwise and anticlockwise)
- Shoulder movements:
 - Shoulder stretch
 - Shoulder rotation (forward and backward)
- Knee movement
- Ankle movements:
 - Ankle stretch
 - Ankle rotation

SURYA NAMASKAR

YOGASANAS:

STANDING POSTURES

- Tadasana
- Vrikshasana
- Ardhashakrasana
- Padahasthasana
- Trikonasana
- Garudasana

SITTING POSTURES

- Padmasana
- Vajrasana
- Ushtrasana
- Shashankasana
- ArdhaMatsyendrasana
- Gomukhasana
- Bhadrasana

PRONE POSTURES

- Makarasana
- Bhujangasana
- Shalabhasana
- Dhaurasana

SUPINE POSTURES

- ArdhaHalasana
- Sethubandhasana
- Sarvangasana
- Chakrasana
- Pawanamuktasana
- Shavasana

KAPHALA BHATI

PRANAYAMA:

- Nadi Sodhana Pranayama
- Bhramari Pranayama
- Sitali pranayama

DHYANA

Age Group: Young Women

YOGA PRACTICES

YOGIC SUKSHMA VYAYAMA (Micro Circulation Practice):

- Neck movements:
 - Forward and backward bending
 - Right and left bending
 - Right and left twisting
 - Neck rotation (clockwise and anticlockwise)
- Shoulder movements:
 - Shoulder stretch
 - Shoulder rotation (forward and backward)
- Trunk movement:
 - Trunk twisting (Kati Shakti Vikasak)
- Knee movement
- Ankle movements:
 - Ankle stretch
 - Ankle rotation
- Yogic Sthula Vyayama
- Sarvangapusti
- Rekhagati
- Urdhvagati (upward movement)

SURYANAMASKAR

YOGASANAS:

STANDING POSTURES

- Tadasana
- Urdhva Hastottanasana
- Katichakrasana
- Ardha Utkatasana

SITTING POSTURES

- Bhadrasana
- Vakrasana/Ardha Matsyendrasana
- Ushtrasana
- Sasakasana

- Utana Mandukasana

PRONE POSTURES

- Bhujangasana
- Makarasana
- Dhanurasana

SUPINE POSTURES

- Uttanpadasana
- Pavanamuktasana
- Matsyasana
- Sarvangasana/Viparitarani
- Markatasana
- Shavasana

KAPALABHATI

PRANAYAMA (without Kumbhaka):

- Anuloma-Viloma/Nadishodhana (Alternate nostril breathing)
- Ujjayi Pranayama
- Bhramari Pranayama

Age Group: Middle-Aged Women

YOGA PRACTICES

KRIYAS:

- JalaNeti
- Kapalabhati (30 strokes; 3 times)

YOGIC SUKSHMA VYAYAMA (Micro Circulation Practices):

- Neck movements:
 - Forward and backward bending
 - Right and left bending
 - Right and left twisting
- Shoulder movements:
 - Shoulder stretch
 - Shoulder rotation (forward and backward)
- Trunk twisting
- Ankle movements:
 - Ankle stretch
 - Ankle rotation

YOGASANAS (Modified Version):

STANDING POSTURES

- Tadasana
- Hasthotanasana
- ArdhaKaticakrasana
- veerbhadrasana
- Padahasthasana

SITTING POSTURES

- Bhadrasana
- Ardha-Ustrasana
- Shashakasana
- marjariasana,
- Uttanmandukasana,
- Gomukasana
- Vakrasana

PRONE POSTURES

- Bhujangasana
- ArdhaShalabhasana
- Makrasana

SUPINE POSTURES

- UttithaEkapadasana
- Ardha-Halasana
- Markatasana
- EkpadaPawanmuktasana
- Shavasana

PRANAYAMA:

- Sectional breathing
- Nadi Sodhana Pranayama
- Sital/Sheetkari Pranayama
- Bhramari Pranayama

DHYANA/YOGA NIDRA

Age Group: Senior Women

YOGA PRACTICES

YOGIC SUKSHMA VYAYAMA in sitting or standing posture (Micro Circulation Practice):

- Neck movements:
 - Forward and backward bending
 - Right and left bending
 - Right and left twisting
 - Neck rotation (clockwise and anticlockwise)
- Shoulder movements:
 - Shoulder stretch
 - Shoulder rotation (forward and backward)
- Trunk movement
 - Trunk twisting (Kati Shakti Vikasak)
- Knee Movement
- Ankle movement
 - Ankle stretch
 - Ankle rotation

YOGASANAS (Modified Version):

STANDING POSTURES

- Tadasana
- Urdhva Hastottanasana
- Katichakrasana

SITTING POSTURES

- Vakrasana
- Utana Mandukasana in sukhāsana

PRONE POSTURES

- Bhujangāsana
- Makarāsana

SUPINE POSTURES

- Setubandhasana
- EkpadaPavanamuktāsana
- Shavasana

KAPALABHATI

PRANAYAMA (without Kumbhaka):

- Ujjayi
- Anuloma-Viloma/Nadishodhana (Alternate nostril breathing)
- Bhramari Pranayama

DHYANA

Age Group: Long Survivors

YOGIC SUKSHMA VYAYAMA in sitting or standing posture (Micro Circulation Practice):

- Neck movements:
 - Forward and backward bending
 - Right and left bending
 - Right and left twisting
- Shoulder movements:
 - Shoulder stretch
 - Shoulder rotation (forward and backward)
- Trunk movement
 - Trunk twisting (Kati Shakti Vikasak)
- Knee movement
- Ankle movements:
 - Ankle stretch
 - Ankle rotation

YOGASANAS (modified versions):

STANDING POSTURES

- Tadasana

SITTING POSTURES

- Dandasana
- Vakrasana

PRONE POSTURES

- Bhujangasana
- Makarasana

SUPINE POSTURES

- Ekpada Pavanamuktasana
- Shavasana

PRANAYAMA (without Kumbhaka):

- Anuloma-Viloma/Nadishodhana (Alternate nostril breathing)
- Bhramari Pranayama

Chapter 13

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Actions at the Public Level

Actions at the Population Level (Women's Health)

- Promotion of education, empowerment, and safe and healthy work environments for women.
- Screenings for improved living and working conditions, including housing, water, sanitation, and nutrition (folic acid fortification).
- Raise awareness about the different facilities available for women. Government should provide orientation programs on laws/harassment. Informatives (Information, Education & Communication-IEC) from each discipline can be displayed in public areas to promote awareness. School education programs of girls could include the same.
- Nutritional profiling at the district level for every age group.
- A helpline number should be established that can be used by women to gather information anonymously.
- Regular skill enhancement opportunities must be offered to healthcare workers to ensure improved quality of services at healthcare centers.
- Identification of high-risk pregnancies while ensuring the availability of emergency delivery, assisted ventilation, and ECMO (extracorporeal membrane oxygenation) at healthcare facilities.
- Emphasis on the utilization of antenatal care and institutional delivery for safe births.
- Deworming, testing, and treatment of anemia using digital methods and point-of-care treatment should be ensured for expectant mothers. Further, mandatory provision of iron folic acid fortified foods should be ensured through government programs.
- Assessment of women's mental health could be done by healthcare workers at various levels using a validated questionnaire. Expectant mothers can be asked questions regarding their mental health when they go for getting vaccinated.
- Late marriages can result in miscarriages. Therefore, educating women regarding the same is important. This should be included in the awareness programs.
- Postpartum depression: Friends, family, and healthcare workers could assess women's mental health by asking them simple questions such as "How have you been?"
- The concept of respite care can be employed in the postpartum stage.
- Social issues such as gender-based violence and female infanticide: Awareness and emphasis on gender equality and strict action for the violation of the PCPNDT Act. For other issues such as adverse childhood experiences: 1) (a) Counselling of parents and (b) Helpline for parents; 2) Training should be provided to teachers on how to deal with children, especially those in the 8–13 age group.

Chapter 13

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Actions at the Public Level (cont.)

- Scoliosis: Checkups can be done at schools (by nurse/female teachers) by examining the backbone of girls in the 8–10 age group (before the commencement of their periods).
- Strengthening the adolescent reproductive & sexual health (ARSH) clinics by starting hybrid mode of consultations, i.e., both conventional and digital modes.
- Education at the school level regarding pubertal changes can help adolescents adapt to bodily changes and create awareness regarding the dangers of dieting. Schools can organize a 35–40 minute lecture every three months, which should include information on physical and mental health along with education on menstrual hygiene. Screenings for iron deficiency, substance misuse, and mental health conditions can also be carried out at the school level.
- Mental health issues: 1) Symptoms checklist (at schools and at home) for mental health, 2) Three-day training programs (two hours every day) can be conducted at Anganwadis for basic mental health screening.
- Family/parents should spend time with their children and teach them about health and other important aspects of life in addition to education and career.
- Promotion of healthy habits such as healthy food intake, physical activity and yoga, and adequate sleep for all age groups.
- Regular free healthcare checkups every six months for women above 30 years of age, covering screening for hypertension, diabetes, and other NCDs. Sensory impairment, periodontal diseases, and cataract screenings for senior women should be carried out.
- Government-aided senior clubs can be established as socializing can help senior women cope with loneliness and depression.
- The availability of mental health helplines for women must be ensured.

List of Annual Health Checkups

Women usually go for a health check-up once their health problems reach an advanced stage, shocking both the family and themselves. Most of these problems are preventable if detected early. Therefore, we recommend the below-mentioned body check-ups once a year:

- ❖ Complete Clinical Check Up *(for overall health)*
- ❖ Eye Check-up *(for eyesight)*
- ❖ ENT Check-up *(for overall ear, nose, and throat health)*
- ❖ Blood Tests:
 - **Complete Blood Count** - Haemoglobin HB, TLC, Platelets, DLC, ESR, HCT, MCV, MCH, MCHC, RDW, MPV, PCT, PDW, PS *(for overall health and conditions like anaemia, blood cancers or infections)*
 - **Blood Sugar** - Fasting, Post Prandial (After Meals) *(for Diabetes)*
 - **Lipid Profile** - TC (Total Cholesterol) HDL (Good Cholesterol), LDL (Bad Cholesterol), VLDL Cholesterol, Triglycerides LDL / HDL Cholesterol Ratio, TC (Total Cholesterol) / HDL Cholesterol Ratio – *(to track and check for any heart and blood vessel health issues)*
 - **Kidney Profile** - Uric Acid, Serum Creatinine, Blood Urea Nitrogen (BUN), Serum Urea, Urea / Creatinine Ratio, Electrolytes *(for overall kidney health)*
 - **Liver Function Test** - Bilirubin Direct, Indirect and Total, SGPT, SGOT, Alk Phosphatase, Total Proteins, Albumin/ Globulin, A/G Ratio *(for liver infections)*
 - **Bone** - Vitamin D, Calcium *(for bone health)*
 - **Thyroid Function Test** - T3, T4, TSH *(Hypothyroidism or hyperthyroidism)*
- ❖ **Complete Urine Analysis:** Colour, Specific Gravity, Reaction (pH), Proteins, Glucose, Nitrites, Blood, Ketones, Bilirubin, Urobilinogen, Leukocytes, PUS (WBC) Cells, RBC, Epithelial Cells, Crystals, Casts, Bacteria *(for issues like urinary tract infections, kidney disease or diabetes)*
- ❖ ECG (Electrocardiogram): *(for heart diseases & conditions)*
- ❖ Ultrasound (abdomen): *(to check for conditions, such as: abdominal pain or distention (enlargement), abnormal liver function, enlarged abdominal organ, kidney stones, gallstones etc.)*
- ❖ Pap smear: Above 25/30 years; *every five years *(for cervical cancer)*

Vitals Check: BMI (Body Mass Index), Pulse Rate, Blood Pressure (BP) *(for general well-being)*

List of Free Investigations/Screenings available at Government Health Facilities as per NHM under the Free Drugs & Diagnostics Service Initiative

At Sub Centres (SHCs)

Clinical Pathology

- Haemoglobin Estimation (Hb)
- Dengue (Rapid test)
- Malaria (Rapid test)
- Blood Sugar (Glucometer)
- Rapid Diagnostic test for Pregnancy (Urine Pregnancy Test)
- Urine Albumin/Urine Sugar /Leucocyte Esterase
- Visual Inspection Acetic Acid (VIA)

At Primary Health Centres (PHCs)

Clinical Pathology

- Haemoglobin Estimation (Hb)
- Total Leukocyte Count (TLC)
- Differential Leukocyte Count (DLC)
- Platelet count
- MP (Slide Method)
- ESR Up
- Clotting Time (CT)
- Blood Group (ABO-RH typing)

Bio Chemistry

- Blood sugar
- S. Bilirubin

Sero-Microbiology

- Rapid Plasma Reagin (RPR) Kit Test
- HIV Test
- Sputum for AFB
- Dengue (Rapid test)
- Malaria (Rapid test)

Urine Analysis

- Urine Sugar / Albumin/Leucocyte Esterase
- Urine Pregnancy test (UPT)

Stool Analysis

- Stool for OVA and cyst
- Water Quality Testing-H₂S Strip test for Faecal Contamination

At Community Health Centres (CHCs)

Clinical Pathology

- Haemoglobin Estimation (Hb)
- Total Leukocyte Count (TLC)
- Differential Leukocyte Count (DLC)
- MP
- ESR
- PT INR
- CBC
- Blood Group (ABO-RH typing)
- Total Red Blood Cell Count
- Platelet count by cell counter
- Packed cell volume (PCV)

Serology

- RPR Rapid Test
- HIV Rapid Test
- Dengue (Rapid test)
- Malaria (Rapid test)
- Sputum for AFB

Stool

- Stool for OVA and cyst

Radiology

- X-Ray (With/Without Contrast)
- USG

Cardiology

- ECG In sourcing of technician

Biochemistry

- Blood sugar
- Blood Urea
- S. Creatinine
- S. Bilirubin (T)
- S. Bilirubin (D)
- SGOT
- SGPT
- S. Alkaline Phosphates
- S. Total Protein
- S. Albumin
- S. Total Cholesterol
- S. Triglyceride
- S. VLDL
- S. HDL
- S. Amylase

Urine

- Urine Sugar / Albumin
- Urine Pregnancy test (UPT)
- Urine Microscopy
- Urine Complete by strip method (Bile Salts, Bile Pigment, Ketone bodies & Occult blood, sugar, albumin, Ph, specific gravity) and Leucocyte Esterase

At District/Subdistrict Hospital

Bio Chemistry

- Blood sugar
- Blood Urea
- S. Creatinine
- S. Bilirubin (T)
- S. Bilirubin (D)
- SGOT
- SGPT
- S. Alkaline Phosphates
- S. Total Protein
- S. Albumin
- S. Calcium/Potassium/Sodium
- Troponin I/Troponin T
- S. LDH
- S. Amylase
- S. Uric Acid Up
- S. Total Cholesterol
- S. Triglyceride
- S. VLDL
- S. HDL
- TSH

Serology

- RPR Test
- HIV Rapid Test
- Sputum for AFB
- Dengue (Rapid) Test
- Malaria (Rapid) Test
- Rheumatoid Factor (RA)
- Anti Streptolysin – O (ASLO)
- HBsAg (Rapid)
- S. CRP

Microbiology

- Blood Culture (Bactec)
- Urine Culture
- **Histopathology- Biopsy and / Bone marrow aspiration** **Exfoliative cytology / cytopathology)**

Clinical Pathology

- Haemoglobin Estimation (Hb)
- Total Leukocyte Count (TLC)
- Differential Leukocyte Count (DLC)
- MP (Slide Method)
- ESR (Erythrocyte Sedimentation Rate)
- PBF (Peripheral Blood Film)
- CBC (Complete Blood Count)
- Blood Group (ABO-RH typing)
- Total Eosinophilic Count (TEC)
- Total Red Blood Cell Count
- Platelet count by cell counter
- Packed cell volume (PCV)
- Coomb's test-Direct
- Coomb's test-Indirect
- Prothrombin time test INR
- Cell Count and Bio-chemistry (CSF, Pleural and Ascitic fluid)

Urine Analysis

- Urine Complete
- Urine Pregnancy test (UPT)
- Urine Microscopy

Stool Analysis

- Stool for OVA and cyst

Radiology

- X-Ray
- USG

Cardiology

- ECG

Source: https://nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/Drugs_&_logistics/Free_Diagnostics_Service_Initiative.pdf

References

- Ames, H. M., Glenton, C., & Lewin, S. (2015). *Parents' and informal caregivers' views and experiences of routine early childhood vaccination communication: qualitative evidence synthesis*. *Cochrane Database of Systematic Reviews*, (7). <https://doi.org/10.1002/14651858.CD011787>
- Amicizia, D., Micale, R. T., Pennati, B. M., Zangrillo, F., Iovine, M., Lecini, E., ... & Panatto, D. (2019). *Burden of typhoid fever and cholera: similarities and differences. Prevention strategies for European travelers to endemic/epidemic areas*. *Journal of preventive medicine and hygiene*, 60(4), E271. <https://doi.org/10.15167%2F2421-4248%2Fjpmh2019.60.4.1333>
- Ansari, S. N. (2018). *Born to die. Female infanticide and Feticide: An analysis of India*. *International Journal of Social Science and Economic Research*, 3(4), 1154-1159.
- Avotri, J. Y., & Walters, V. (1999). ``You just look at our work and see if you have any freedom on earth'': Ghanaian women's accounts of their work and their health. *Social Science & Medicine*, 48(9), 1123-1133. [https://doi.org/10.1016/S0277-9536\(98\)00422-5](https://doi.org/10.1016/S0277-9536(98)00422-5)
- Belvedere homecare. (n.d.). *Senior women's health: common health issues for women ages 65 and older*. <https://belvederehealthservices.com/belvedere-home-care/blog/senior-womens-health-common-health-issues-women-ages-65-and-older#:~:text=Older%20percent20women%20percent20die%20percent20of%20percent20the,diabetes%20percent2C%20percent20hypertension%20percent2C%20percent20or%20percent20arthritis.>

- Bhan, N., Rao, K. D., & Kachwaha, S. (2016). *Health inequalities research in India: a review of trends and themes in the literature since the 1990s*. *International journal for equity in health*, 15(1), 1-8.
<https://doi.org/10.1186/s12939-016-0457-y>
- Bhanji, S. M., & Punjani, N. S. (2014). *Determinants of child (early) marriages among young girls: a public health issue*. *J Women's Health Care*, 3(3), 1-3. <http://dx.doi.org/10.4172/2167-0420.1000161>
- Bhattacharya, S., & Singh, A. (2016). *Changing strategies of female foeticide in India: a never ending story*. *International journal of community medicine and public health*, 23(9), 2672-6.
<http://dx.doi.org/10.18203/2394-6040.ijcmph20163094>
- Boullier, M., & Blair, M. (2018). *Adverse childhood experiences*. *Paediatrics and Child Health*, 28(3), 132-137.
<https://doi.org/10.1016/j.paed.2017.12.008>
- Bowman-Smart, H., Savulescu, J., Gyngell, C., Mand, C., & Delatycki, M. B. (2020). *Sex selection and non-invasive prenatal testing: A review of current practices, evidence, and ethical issues*. *Prenatal Diagnosis*, 40(4), 398-407. <https://doi.org/10.1002/pd.5555>
- Centers for Disease Control and Prevention (n.d.). *Mental health*.
<https://www.cdc.gov/mentalhealth/learn/index.htm>
- Chugh, V. K., Sahu, K. K., & Chugh, A. (2018). *Prevalence and risk factors for dental caries among preschool children: a cross-sectional study in eastern India*. *International journal of clinical pediatric dentistry*, 11(3), 238. <https://doi.org/10.5005/jp-journals-10005-1518>
- Corsi, D. J., Mejía-Guevara, I., & Subramanian, S. V. (2016). *Risk factors for chronic undernutrition among children in India: Estimating relative importance, population attributable risk and fractions*. *Social Science & Medicine*, 157, 165-185.
<https://doi.org/10.1016/j.socscimed.2015.11.014>

- Dang, A., Dang, D., & Vallish, B. N. (2021). Importance of evidence-based health insurance reimbursement and health technology assessment for achieving universal health coverage and improved access to health in India. *Value in Health Regional Issues*, 24, 24-30. <https://doi.org/10.1016/j.vhri.2020.04.007>
- Dupas, P., & Jain, R. (2021). *Women Left Behind: Gender Disparities in Utilization of Government Health Insurance in India* ((Working Paper No. #28972). National Bureau of Economic Research. <https://doi.org/10.3386/w28972>
- Dyussenbayev, A. (2017). Age periods of human life. *Advances in Social Sciences Research Journal*, 4(6). <https://doi.org/10.14738/assrj.46.2924>
- Gowda, S., Manjunath, C., & Krishna, D. (2015). Awareness about health insurance in rural population of South India. *International Journal of Community Medicine and Public*, 2(4), 648-650. DOI: <http://dx.doi.org/10.18203/2394-6040.ijcmph20151064>
- Hobbs, M., Pearson, N., Foster, P. J., & Biddle, S. J. (2015). Sedentary behaviour and diet across the lifespan: an updated systematic review. *British journal of sports medicine*, 49(18), 1179-1188.
- Jalan, A. B., & Kudalkar, K. V. (2021). Newborn screening: Need of the hour. *Karnataka Paediatric Journal*, 36(1), 35-41. https://doi.org/10.25259/KPJ_33_2020
- Jaul, E., & Barron, J. (2017). Age-related diseases and clinical and public health implications for the 85 years old and over population. *Frontiers in public health*, 5, 335. <https://doi.org/10.3389/fpubh.2017.00335>
- Johns Hopkins medicine. (n.d.) Women's healthcare guidelines. <https://www.hopkinsmedicine.org/health/wellness-and-prevention/womens-healthcare-guidelines>

- *Johns Hopkins medicine. (n.d.). Gestational Diabetes Mellitus*
<https://www.hopkinsmedicine.org/health/conditions-and-diseases/diabetes/gestational-diabetes#:~:text=Having%20given%20birth%20previously%20to,Islander%20have%20a%20higher%20risk>)
- *Johns Hopkins medicine. (n.d.). Introduction to menopause.*
<https://www.hopkinsmedicine.org/health/conditions-and-diseases/introduction-to-menopause>
- *Johnson, D., Dupuis, G., Piche, J., Clayborne, Z., & Colman, I. (2018). Adult mental health outcomes of adolescent depression: A systematic review. Depression and anxiety, 35(8), 700-716.*
<https://doi.org/10.1002/da.22777>
- *Kandavel, S., Anita, M., Rekha, U. V., Mystica, T., & Swetha, K. J. (2019). Neonatal line: A valuable evidence to prove female infanticide. International Journal of Forensic Odontology, 4(1), 11.* https://doi.org/10.4103/ijfo.ijfo_6_19
- *Kelly, Y., Zilanawala, A., Sacker, A., Hiatt, R., & Viner, R. (2017). Early puberty in 11-year-old girls: Millennium Cohort Study findings. Archives of disease in childhood, 102(3), 232-237.*
- *Key, P. (1987). Women, health and development, with special reference to Indian women. Health Policy and Planning, 2(1), 58-69.* <https://doi.org/10.1093/heapol/2.1.58>
- *Kõu, A., & Bailey, A. (2017). ‘Some people expect women should always be dependent’: Indian women’s experiences as highly skilled migrants. Geoforum, 85, 178-186.*
<https://doi.org/10.1016/j.geoforum.2017.07.025>
- *Kumar, H., Sarin, E., Saboth, P., Jaiswal, A., Chaudhary, N., Mohanty, J. S., ... & Alwadhi, V. (2021). Experiences From an Implementation Model of ARI Diagnostic Device in Pneumonia Case Management Among Under-5 Children in Peripheral Healthcare Centers in*

- India. *Clinical Medicine Insights: Pediatrics*, 15, <https://doi.org/10.1177/11795565211056649>
- Kumar, J., & Sangeeta. (2013). Status of women education in India. <http://dspace.stellamariscollege.edu.in:8080/xmlui/bitstream/handle/123456789/3050/womens%20education%20t1.pdf?sequence=1&isAllowed=y>
- Lai, M., Liu, Y., Ronnett, G. V., Wu, A., Cox, B. J., Dai, F. F., Röst, H. L., Gunderson, E. P., & Wheeler, M. B. (2020). Amino acid and lipid metabolism in post-gestational diabetes and progression to type 2 diabetes: A metabolic profiling study. *PLoS medicine*, 17(5), e1003112. <https://doi.org/10.1371/journal.pmed.1003112>
- Mahapatra, A., & Kar, S. (2019). Osteoarthritis in women reporting to tertiary care hospital in Eastern India: Associated factors determining management. *Journal of Family Medicine and Primary Care*, 8(11), 3544. https://doi.org/10.4103/jfmpc.jfmpc_704_19
- Malhotra, S., & Shah, R. (2015). Women and mental health in India: An overview. *Indian journal of psychiatry*, 57(Suppl 2), S205–S211. <https://doi.org/10.4103/0019-5545.161479>
- Marks, R. J., De Foe, A., & Collett, J. (2020). The pursuit of wellness: Social media, body image and eating disorders. *Children and youth services review*, 119, 105659. <https://doi.org/10.1016/j.childyouth.2020.105659>
- National Crime Record Bureau. (2020). *Crime in India 2020 Statistics*. Retrieved from <https://ncrb.gov.in/sites/default/files/CII%202020%20Volume%201.pdf>
- National Family Health Survey, India. (2015-16). *India Factsheet National Family Health Survey-4 (NFHS-4)*. <http://rchiips.org/nfhs/pdf/nfhs4/india.pdf>
- National Family Health Survey, India. (2021). *National Family Health Survey-5 (NFHS-5), 2019-21 India Report*. <https://dhsprogram.com/pubs/pdf/FR375/FR375.pdf>

- *People's archive of rural India. (2021). The Prohibition of Child Marriage (Amendment) Bill, 2021.*
<https://ruralindiaonline.org/en/library/resource/the-prohibition-of-child-marriage-amendment-bill-2021/>
- *Raj, A., & Boehmer, U. (2013). Girl child marriage and its association with national rates of HIV, maternal health, and infant mortality across 97 countries. Violence against women, 19(4), 536-551.* <https://doi.org/10.1177/1077801213487747>
- *Ramos-Gomez, F., Kinsler, J., & Askaryar, H. (2020). Understanding oral health disparities in children as a global public health issue: how dental health professionals can make a difference. Journal of public health policy, 41(2), 114-124.*
<https://doi.org/10.1057/s41271-020-00222-5>
- *Rao, G. P., Vidya, K. L., & Sriramy, V. (2015). The Indian “girl” psychology: A perspective. Indian journal of psychiatry, 57(Suppl 2), S212-S215.* <https://doi.org/10.4103%2F0019-5545.161480>
- *Reddy, P. M. C., Rineetha, T., Sreeharshika, D., & Jothula, K. Y. (2020). Health care seeking behaviour among rural women in Telangana: A cross sectional study. Journal of Family Medicine and Primary Care, 9(9), 4778 –4783.*
<https://doi.org/10.4103%2Fjfmprc.489.20>
- *Sarwal, R., & Kumar, A. (2021) Health Insurance for India's Missing Middle. NITI Ayog. (2021). Health insurance for India's missing middle.* https://www.niti.gov.in/sites/default/files/2021-10/HealthInsurance-forIndiasMissingMiddle_28-10-2021.pdf
- *Schulte-Körne, G. (2016). Mental health problems in a school setting in children and adolescents. Deutsches Ärzteblatt International, 113(11), 183.*
<https://doi.org/10.3238/arztebl.2016.0183>

- Singh, R. (2017). *Economic and Health Costs of Child Marriages in India*. Social Science Research Network, 3494955. <https://dx.doi.org/10.2139/ssrn.3494955>
- Singh, R., & Tripathi, V. (2013). Maternal factors contributing to under-five mortality at birth order 1 to 5 in India: a comprehensive multivariate study. SpringerPlus, 2, 284. <https://doi.org/10.1186/2193-1801-2-284>
- Singh, S. (2019). *Sacrifice And Compromise: Should These Two Words Define Indian Women?*. Women's Web. <https://www.womensweb.in/2019/02/sacrifice-compromise-define-indian-women-feb19wk2sr/>
- Stockwell, S., Trott, M., Tully, M., Shin, J., Barnett, Y., Butler, L., ... & Smith, L. (2021). Changes in physical activity and sedentary behaviours from before to during the COVID-19 pandemic lockdown: a systematic review. *BMJ open sport & exercise medicine*, 7(1), e000960.
- Sunitha, S., & Gururaj, G. (2014). Health behaviours & problems among young people in India: cause for concern & call for action. *The Indian journal of medical research*, 140(2), 185–208.
- Svanemyr, J., Chandra-Mouli, V., Christiansen, C. S., & Mbitzvo, M. (2012). Preventing child marriages: first international day of the girl child “my life, my right, end child marriage”. *Reproductive health*, 9(1), 1-3. <https://doi.org/10.1186/1742-4755-9-31>
- Tahirbegolli, B., Obertinca, R., Bytyqi, A., Kryeziu, B., Hyseni, B., Taganoviq, B., & Shabani, B. (2021). Factors affecting the prevalence of idiopathic scoliosis among children aged 8–15 years in Prishtina, Kosovo. *Scientific Reports*, 11(1), 1-7. <https://doi.org/10.1038/s41598-021-96398-1>
- The Print. (2018). Indian women are constantly ‘adjusting’ for others and it’s crushing them. <https://theprint.in/pageturner/excerpt/indian-women-are-constantly-adjusting-for-others-and-its-crushing-them/40562/>

- *UNICEF.(2017). First 1000 days.*
<https://www.unicef.org/southafrica/media/551/file/ZAF-First-1000-days-brief-2017.pdf>
- *Wiernicka, M., Kotwicki, T., Kamińska, E., Łochyński, D., Kozinoga, M., Lewandowski, J., & Kocur, P. (2019). Postural stability in adolescent girls with progressive idiopathic scoliosis. BioMed Research International, 2019.*
<https://doi.org/10.1155/2019/7103546>
- *World Economic Forum. (2021) Global gender gap report 2020.*
https://www3.weforum.org/docs/WEF_GGGR_2021.pdf
- *Zodpey, S., & Negandhi, P. (2020). Inequality in health and social status for women in India–A long-standing bane. Indian Journal of Public Health, 64(4), 325.*
https://doi.org/10.4103/ijph.IJPH_1312_20

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