



From the Director's desk

Health profession demands regular updation of knowledge to effectively treat the ailing and protect the healthy from probable risk factors to their health. This newsletter is a humble attempt to address to this need by taking up an issue of public health importance every month.

In view of glaring upsurge of non-communicable diseases as one of the most important cause of mortality and morbidity; this issue deliberate upon osteoporosis – a condition frequent in aging population and responsible for easy fractures making life miserable. Despite the availability of cost effective and well tolerated treatment to reduce fracture risk, only one-fourth of patients aged 60+ get Bone Mineral Density (BMD) test or a prescription for a drug to treat ostoporosis following the first fracture.

SIHFW Rajasthan strive hard to fulfill commitments of capacity building of the health officials and the staff. SIHFW once again starts the newsletter series to highlight its activities.



SIHFW's Activities.....

Capacity Building through SIHFW in October

131 Medical Officers trained

•Foundation Course -----	45
•Routine Immunization -----	20
•BSU -----	03
•Safe Abortion Care -----	18
•Comprehensive Abortion Care (ToT) -----	07
•BEmOC -----	23
•F-IMNCI (ToT) -----	15

264 NHM staff trained

•ASHA Induction (ToT)	24
•Foundation Course on National Disease Control Program	74
•DVDMS	77
•Universal Health Coverage	89

358 Paramedics trained

•Routine Immunization ~~~~~	177
• Refresher SBA ~~~~~	32
•BSU ~~~~~	04
•NSSK ~~~~~	30
•Supportive Supervision ~~~~~	50
•Nurse Mentoring ~~~~~	65



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Participants Feedback Desk

Dr. Ajay Kumar, MO, PHC Samraniya, Baran: “.....special thanks to SIHFW for organizing short term foundation courses for the newly recruited Medical Officers. After joining as Medical Officers we faced problems related to administrative and financial issues with no clue of dealing with them besides being unacquainted of the what, why and how behind the various schemes and programs of the state and central government. This course helped us to learn all that was required...”

Monitoring of trainings - 10 visits

ToT on Injectables - Ajmer (1)
Training on Comprehensive Abortion Care - Jaipur (2)
Training of Nurse Mentoring Burst 1 - Jaipur (2); Bharatpur (1)
Training on BEmOC for MOs/LMOs - Jaipur (2)
ToT on Capacity Building of PHC HS & LHVs - Ajmer (2)

SIHFW's participation

- Dr. Vishal Singh, Faculty, attended the meeting of State Supervisory Board of PCPNDT (Oct. 4).
- Dr. Vishal Singh, Faculty, was invited to take a session in the In-service training on FIC (ICD -10 & ICF) for paramedics and non-medical persons at CBHI, Jaipur (Oct. 9).
- Dr. Amita Kashyap, Director, attended the meeting on SHSRC at NHSRC, New Delhi (Oct. 11-13).

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- Dr. Vishal Singh, Faculty, was a part of the team for spot check of High Risk Pregnancy Register under Kushal Mangal Karyakram at CHC Chirawa and CHC Buhana, Jhunjhunu (Oct. 14).
- Dr. Mamta Chauhan, Faculty, was a part of the team for spot check of High Risk Pregnancy Register under Kushal Mangal Karyakram at CHC Kekri and CHC Arai, Ajmer (Oct. 14).
- Dr. Richa Chaturvedy, Consultant RCH (Medical) & Mr. Aseem Mohd. Malawat, Consultant RCH (Mgmt.), attended the State Level Workshop - Dakshata -The Journey In Rajasthan Experience Sharing at Hotel Marriott, Jaipur (Oct. 25).
- Dr. Vishal Singh, Faculty, attended the meeting of Task Force for Intensive Mission Indradhanush (Oct. 27).

Up-coming Activities

November, 2017	
1.	Orientation on Assessment of Yashoda Intervention – Nov. 2
2.	CME on 'Diabetes and Women' – Nov. 14
3.	ToT on Burst 2- Intrapartum Care under NMT – Nov. 9-10; 13-14; 27-28
4.	ToT of DAP – Rakshaks – Nov. 13
5.	Foundation Course for newly recruited MOs – Nov. 20 – Dec. 02
6.	Training on Routine Immunization for MOs – Nov. 7-9; 14-16; 21- 23; 28 - 30
7.	Training of Public Health Managers under NUHM – Nov. 21 – 22; 23-24
8.	Foundation Training of newly recruited Accountants under NHM – Nov. 20
9.	Training on SNCU online – Nov. 27 – 28; 29-30
10.	Orientation on HBNC Vouchers Nov. 21; 22



Health news

WHO report calls for political commitment in curbing tuberculosis

The *Global TB Report 2017* released by WHO estimated that 53 million lives have been saved by the global efforts to combat tuberculosis (TB) since 2000 and reduced the TB mortality rate by 37%. But in spite of these achievements TB remains the top infectious killer, main cause of deaths related to antimicrobial resistance and the leading killer of people with HIV.

In 2016, there were approximately 10.4 million new TB cases worldwide, 10% of which were people living with HIV. Seven countries accounted for 64% of the total burden, with India bearing the brunt, followed by Indonesia, China, Philippines, Pakistan, Nigeria and South Africa. Multidrug-resistant TB (MDR-TB) remains a public health crisis and a health security threat.

Ending the TB epidemic requires action beyond the health sector to address the risk factors and determinants of the disease. For the first time the *Global TB Report* presents results from a new multi-sectoral monitoring framework that identifies linkages with the TB epidemic across seven Sustainable Development Goals (SDGs). In order to increase multi-sectoral action, plans to spur all sectors and secure attention at the highest levels have resulted in the WHO Global Ministerial Conference on Ending TB in the Sustainable Development Era, in Moscow, November 16–17, 2017. This will be followed by the very first UN General Assembly High-Level Meeting on TB in 2018, which will seek commitment from heads of state.

Source: *October 30, 2017/WHO Media Centre/News*



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Government launches Intensified Mission Indradhanush (IMI)

The Government of India launched Mission Indradhanush in December 2014 which completed four phases in 528 districts across the country. Now the Government has launched Intensified Mission Indradhanush to cover the target of more than 90% coverage. Through this programme, Government of India aims to reach each and every child under two years of age and all those pregnant women who have been left uncovered under the routine immunisation programme.

Started from October 7, 2017, the states would carry Intensified Mission Indradhanush drives for seven working days from the 7th of every month for four consecutive months excluding Sundays, holidays and routine immunization days. Under the IMI the major focus is on the urban areas which were a gap in the Mission Indradhanush. This will be carried out through mapping of all the underserved population in urban areas and need based deployment of ANMs for providing vaccination services.

Intensified Mission Indradhanush would be closely monitored at the district, state and central level at regular intervals. Further, it would be reviewed by the Cabinet Secretary at the National level and will continue to be monitored at the highest level under a special initiative 'Proactive Governance and Timely Implementation (PRAGATI)'.

Source: *Press Bureau of India, Press Release/October 31, 2017*

Daughters are Precious – 'rakshaks' to protect girl child

Rajasthan, one of the seven states with the lowest sex ratio at birth, has taken the initiative to directly reach school and college students to make them aware about the falling sex ratio. The health department has trained 650 volunteers from different fields in a training program for the 'rakshaks'.



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A recently released Gender Vulnerability Index (GVI) by the Union ministry of women and child development had ranked Rajasthan at 22 among 30 bigger states in the country. Also, the sex ratio at birth stood at a dismal 893 live female births for every 1,000 live male births as per the last three successive government sample registration statistical reports of 2010-12, 2011-13 and 2012-14. While the survey showed that the situation has not become worse, it didn't show any improvement either.

At the session in the city, health department officials gave a presentation on child sex ratio in the state and country, Pre-Conception and Pre-Natal Diagnostic Techniques Act and other relevant rules, efforts of the state government to improve sex ratio through schemes such as Mukhbir Yojna, decoy operations. Experts also spoke about how girl children were being killed and what is being done to save them.

Source: November 05 2017: The Times of India, Jaipur

Health Days of November

November 2	World Pneumonia Day
November 10	World Immunization Day
November 14	World Diabetes Day
November 15	World COPD Day
November 18	World Epilepsy Day
November 15-21	New Born Care Week

Edition: 2017/ E-1**October Issue*****Let's know about Osteoporosis*****Osteoporosis**

Bones are continuously changing — new bone is made and old bone is broken down. When one is young, the body makes new bone faster than it breaks down, and the bone mass increases. Most people reach their peak bone mass around age 30. After that, bone remodeling continues, but one loses slightly more bone mass than one gains.

Osteoporosis is characterized by low bone mass, deterioration of bone tissue and disruption of bone architecture, compromised bone strength, and an increase in the risk of fracture. It is major public health concern as it remains silent until complicated by fractures.

According to the WHO diagnostic classification, Osteoporosis is defined by Bone Mineral Density (BMD) at the hip or lumbar spine that is less than or equal to 2.5 standard deviations below the mean BMD of a young-adult reference population.

Information on how to prevent and/or manage Osteoporosis is crucial in reducing its impact. Even after the first fracture has occurred, there are effective treatments to decrease the risk of further fractures. Medical



OSTEOPOROSIS

NORMAL BONE

Who should undergo BMD testing?

- ✚ Women above 65 yrs of age irrespective of clinical risk factors
- ✚ Men above 70 yrs of age irrespective of clinical risk factors
- ✚ Younger postmenopausal women
- ✚ Men aged between 50 to 69 yrs with clinical risk factors for fracture
- ✚ Adults who have a fracture at or after 50 yrs of age
- ✚ Adults with a condition (e.g., rheumatoid arthritis) or taking a medication (e.g., glucocorticoids in a daily dose ≥ 5 mg prednisone or equivalent for ≥ 3 months) associated with low bone mass or bone loss



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professionals should know how to establish Osteoporosis risk and when to advice appropriate testing to diagnose osteoporosis.

Medical impact of Osteoporosis

Osteoporosis leads to fractures and their sequelae. The most common fractures occur in the vertebrae (spine), proximal femur (hip), and distal forearm (wrist).

Hip fractures are associated with an 8 to 36 % excess mortality within 1 year or necessity for long-term care. Vertebral fractures though silent have symptoms of pain, disability and deformity. Thoracic fractures may result in restrictive lung diseases, lumbar fracture in abdominal pain, constipation, distention, reduced appetite, and premature satiety.

Besides the physical symptoms, fractures also bring notable psychosocial symptoms as depression and loss of self-esteem more because of the patient's struggle with pain, physical limitations, lifestyle and cosmetic changes.

What affects the bone health

- ✓ **Calcium in diet** - A diet low in calcium contributes to decreased bone density and early bone loss.
- ✓ **Physical activity** - People physically inactive are at a higher risk of osteoporosis.
- ✓ **Tobacco and alcohol use** - Tobacco and alcohol use contributes in weakening bones.
- ✓ **Gender** - Women have less bone tissue than do men.
- ✓ **Body frame size** - Extremely thin (with a body mass index of 19 or less) or small body frame have less bone mass to draw from as one ages.
- ✓ **Age** - Bones become thinner and weaker as one ages.
- ✓ **Family history** - Having a parent or sibling who has osteoporosis puts one at greater risk



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✓ **Hormone levels –**

- High thyroid level can cause bone loss.
- Bone loss increases at menopause in women due to decreasing estrogen levels. Prolonged absence of menstruation (amenorrhea) before menopause also increases the risk of osteoporosis.
- Low testosterone levels in men can cause a loss of bone mass.

✓ **Eating disorders and other conditions** - People who have anorexia or bulimia are at risk of bone loss. In addition, stomach surgery (gastrectomy), weight-loss surgery and conditions such as Crohn's disease, Celiac disease and Cushing's disease can affect body's ability to absorb calcium.

✓ **Certain medications** - Long-term use of corticosteroid medications, such as prednisone, cortisone, prednisolone and dexamethasone damages the bone. Other drugs that might increase the risk of osteoporosis include aromatase inhibitors to treat breast cancer, selective serotonin reuptake inhibitors, methotrexate, some anti-seizure medications, such as phenytoin (Dilantin) and phenobarbital, and proton pump inhibitors.

✓ **Recommendations for all to improve bone health**

There are risk factors as age, sex, family history and body frame that cannot be reversed or changed. Yet, there are factors as diet, physical activity, lifestyle where timely and effective interventions can reduce the susceptibility for osteoporosis and improve the bone health.

✓ **Widespread information and Counseling** on the risk of osteoporosis and associated fractures is a must for all. IEC activities through various medium can cover a large at-risk population.

✓ **Adequate intake of calcium and Vitamin D** in diet or as supplements is recommended. The preferred source of calcium and Vitamin D should be an adequate diet and exposure in sun, as it is the safest and inexpensive way to help reduce fracture risk. Lifelong adequate calcium intake is necessary for the acquisition of peak bone mass and subsequent maintenance of bone health. The



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skeleton contains 99 % of the body’s calcium stores; when the exogenous supply is inadequate, bone tissue is reabsorbed from the skeleton to maintain serum calcium at a constant level.

- ✓ **Calcium sources:** A balanced diet rich in low-fat dairy products, fruits, and dark green leafy vegetables and soy products provides calcium. In the absence of adequate dietary calcium, supplementation is recommended as daily intake.
- ✓ **Vitamin D sources:** The most natural way to get vitamin D is by exposing your bare skin to sunlight (ultraviolet B rays). This can happen very quickly, particularly in the summer. Besides sunlight, vitamin D can be found in oily fish, like salmon, egg yolks, vitamin D fortified milk and vitamin D supplements.

A healthy diet rich in fruits and vegetables also have Vitamin K, potassium and magnesium which contribute in bone strength and overall health.

Daily requirement for Calcium and Vitamin D

Age group	Calcium	Vitamin D
Children and Adolescents		
1 – 3 years	500 mg	400 IU
4 – 8 years	800 mg	400 IU
9 – 18 years	1300 mg	400 IU
Adult women and men		
19 – 49 years	1000 mg	400 - 800 IU
50 years and above	1200 mg	800 – 1000 IU
Pregnant and Breastfeeding		
18 years and under	1300 mg	400 - 800 IU
19 years and over	1000 mg	400 - 800 IU



Know the amount of calcium in the diet:

Step	Product	Estimated calcium/ serving in mg	No. of servings/ day	Calcium in mg
1	Milk (225 ml/ 1 glass)	X 300	1	300
	Curd (175 ml/ ¾ cup)	X 300	1	300
	Cheese (28 gms)	X 200	1	200
Sub-Total				800
2	Non-dairy sources			250
Total				1050

✓ **Adequate and regular physical activities and exercises as** weight-bearing and muscle-strengthening exercise can reduce the risk. Such exercises have many health benefits as improving agility, strength, posture, and balance – important for reducing risk of falls, in addition to increasing bone density. These exercises need to be lifelong for better results otherwise the benefits are lost when people stop exercising.

Weight-bearing exercise (in which bones and muscles work against gravity as the feet and legs bear the body’s weight) includes walking, jogging, stair climbing, dancing, and tennis. Muscle-strengthening exercise includes weight training and other resistive exercises, such as yoga and pilates. However, a person diagnosed with osteoporosis should consult a doctor before starting with the new vigorous exercise program, such as running or heavy weight lifting.



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- ✓ **Fall prevention measures are required.** Major risk factors for falling include lack of assistive devices in bathrooms, low level of lighting, obstacles in walking path, medical conditions as poor balance, dehydration and malnutrition etc. Multifactorial interventions such as individual risk assessment, exercise programs, home safety assessment, and modification especially when done by an occupational therapist, and gradual withdrawal of psychotropic medication can help in preventing fall. Appropriate correction of visual impairment may improve mobility.

- ✓ **Avoiding the use of tobacco and alcohol is an important step.** The use of tobacco products is detrimental to the skeleton as well as to overall health. Alcohol intake of more than two drinks per day for women or three drinks a day for men may be detrimental to bone health and increase the risk of falling. Steps for cessation of smoking and avoiding use of tobacco need to be taken up at community level.

Source:

www.ncbi.nlm.nih.gov/pmc/articles/PMC4176573;
www.endocrineweb.com/guides/osteoporosis-prevention;
www.nof.org/patients/treatment/calciumvitamin-d;
www.vitamindcouncil.org/about-vitamin-d.



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Photo Gallery

