First ever book conceptualized for giving One Touch to Community Medicine by
Flowcharts • Tables • MCQs • One-Liners

ONE Touch

Preventive & Social Medicine (PSM)

For NEET PG/FMGE/INI-CET/CMS Aspirants/Undergraduates

What's **New** in this Edition?

- Thoroughly Revised and Updated content
- Enriched with Latest Updates up to **Nov 2025**
- Previous years' papers coverage (last 5 years) up to **Nov 2025 (FMGE Jul 2025, INI-CET Nov 2025 and NEET PG 2025)**
- Latest Demographic data, New Schemes and Recent Updates included
- PSM Spotters—Important Images, Logos, Tables, Formulas covered separately
- Complete subject is covered in the form of Figures, Flowcharts, One-liners, Tables for last-minute revision in just 225+ pages.

2nd Edition

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Shveta Saini

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Second Edition

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Preface

Dear Students,

It is our proud privilege to write this page for you. Since our medical college days—and even afterwards—Community Medicine (PSM) has been regarded as one of the most challenging subjects to master due to its vast syllabus, frequent updates, and exam-oriented approach.

Why this book?

Our long-standing desire has been to present Community Medicine in the **simplest, most concise, and most revision-friendly format**, enabling students to understand concepts quickly and revise them in the shortest possible time. *One Touch PSM* truly lives up to its name—it is our sincere effort to provide a **compact yet comprehensive coverage of the entire Community Medicine syllabus** for undergraduate students, postgraduate entrance aspirants, and public health learners.

What is special in this book?

1. **Concise theory:** The entire theory is presented in a highly condensed format (within 62 pages), highlighting the **most important exam-oriented points**. The content is fully aligned with the **latest CBME and NEXT examination curriculum**.
2. **Updated data and recent advances:** The book includes **latest demographic data** and recent national health updates as a separate chapter. Important updates are clearly highlighted in relevant chapters for quick reference and long-term retention.
3. **High-yield tables:** Frequently asked points and clinical correlations are presented in **well-structured tables**, making learning easier, faster, and more visually impactful.
4. **Images and logos:** Relevant images and program logos are included along with concise descriptions and are arranged systematically chapter-wise to aid visual memory.
5. **Important formulas:** A dedicated section with **30 essential formulas,** frequently asked in undergraduate and entrance examinations, has been provided to facilitate quick revision.
6. **Previous year questions (PYQs):** The last **Five years of examination question papers, up to Nov 2025,** have been included along with solutions, explanations, and discussions. Answers are supported by references from standard textbooks, enabling students to understand exam trends and stay updated on recently tested topics.

Do I really need this book?

1. Students who have already completed the Community Medicine syllabus from any standard resource can utilize this book as a **rapid revision guide**, packed with high-yield pearls.
2. Students whose exams are approaching and who have not yet completed Community Medicine can confidently **start and prepare from this book**, focusing on key text, tables, and PYQs.
3. Undergraduate and public health students can revise theory, prepare viva questions, and study efficiently using this book.

We have made every effort to keep this book **concise, revision-oriented, clutter-free, and error-free.** However, learning is a continuous process. If you come across any errors or have valuable suggestions, please feel free to write to us at **mukhmohit5@gmail.com**. You may also connect with the first author on Instagram **@mukhmohit_psm**.

If you believe you can do it and bring out the best in yourself—**you are absolutely right.**

Best wishes for your preparation and success!

Mukhmohit Singh
Shveta Saini

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IMPORTANT IMAGES AND LOGOS

IMPORTANT FORMULAS

LATEST QUESTION PAPERS

THEORY

3 National Health Programmes

NATIONAL HEALTH MISSION

- Recently proposed to rename NHM to PM-SSM PM Samagra Swasthya Mission—focus on secondary and tertiary healthcare at district level
- Includes subcomponents:
  - National Rural Health Mission (NRHM) started in April 2005
  - National Urban Health Mission (NUHM) started in May 2013

The existing Ayushman Bharat-Health and Wellness Center has been renamed to Ayushman Arogya Mandir.

Good to Know

NRHM's key initiatives were:

- Flexible financing
- Increased community participation
- Monitor progress
- Improved management innovation in human resource
- Introduction of ASHA worker

NATIONAL VECTOR-BORNE DISEASE CONTROL PROGRAMME

Malaria

Diagnosis

- **Blood slides:** JSB (preferred) or Giemsa stain
- **Thick slide:** Identify parasite
- **Thin slide:** Identify species

Treatment

- **Pl. vivax:** Chloroquine × 3 days + primaquine × 14 days
- **Pl. falciparum:** ACT for 3 days + PQ single dose on day 2
  - From NE states: ACT AL (artemether + lumefantrine)
  - From other states: ACT-SP (artesunate + sulfadoxine + pyrimethamine)

ACT = Artemisinin-based combination therapy

Dose

- **Artesunate:** 4 mg/kg BW
- **Sulfadoxine:** 25 mg/kg BW
- **Pyrimethamine:** 1.25 mg/kg BW
- **Primaquine:** 0.25 mg/kg BW (for vivax)
- **Primaquine:** 0.75 mg/kg BW (for single dose in falciparum infections)
- **Chloroquine:** 25 mg/kg BW over 3 days

Treatment in Special Situations

- Pregnancy—PQ is not given
  - **1st TM:** Quinine salts 10 mg/kg TDS × 7 days
  - **2nd, 3rd TM:** ACT (SP or AL) × 3 days
- Mixed infections
  - Area specific ACT + PQ × 14 days

August 2025 – **WHO Updated recommendation** for use of ACT-AL in first trimester pregnancy. This is not yet evaluated and approved under NVBDCP, MoHFW.

Must Remember

Treatment for Pl. vivax

- Chloroquine + primaquine (14 days)

Treatment for Pl. falciparum

- ACT (SP or AL) + primaquine (single dose)

Treatment for mixed infections

- ACT (SP or AL) + primaquine (14 days)

Good to Know

Treatment failure in malaria: Patient is on treatment:

- **Early treatment failure:** Danger signs on day 1-3 or increasing parasitemia
- **Late clinical failure:** Danger signs on day 4–28
- **Late parasitological failure:** Parasitemia on day 7–28

Prophylaxis

- Mefloquine (if travel is for >6 weeks): 2–3 weeks before travel
- Doxycycline (if travel is for <6 weeks): 1–2 days before travel
- Continue for 4 weeks' post-travel in both cases of short term and long term travel

Indicators

- **Annual Parasite Incidence (API):** Impact indicator, target <1/1000

Formula:

$$\frac{\text{Number of slides positive or malaria rapid test +ve}}{\text{Total population under survey}} \times 1000$$

- **Annual Blood Examination Rate (ABER):** Fever prevalence, operational indicator
  Target >10%.

Formula:

$$\frac{\text{Number of slides examined in a year}}{\text{Total population under survey}} \times 100$$

- **Slide Positivity Rate (SPR):** Impending outbreak indicator

Formula:

$$\frac{\text{Number of slides positive}}{\text{Number of slides examined}} \times 100$$

- **Child spleen rate:** Old time indicator, used for international comparisons of malaria burden in low resource countries.

Must Remember

Malaria vaccine

- Mo squirix vaccine (RTS, S/AS 01 Vaccine strain)
- Using hepatitis B surface antigen protein

State Categorization for Malaria Control

Category 1	Malaria control	API >1
Category 2	Pre-elimination phase	API <1 with few districts reporting API >1
Category 3	Elimination phase	State API <1 with all districts with API <1
Category 4	Prevention of malaria resurgence	API 0

DISEASES TRANSMITTED BY MOSQUITOES

Anopheles	Aedes	Culex	Mansonia
Malaria	Dengue, chikungunya, yellow fever	Japanese encephalitis, Lymphatic filariasis	Lymphatic filariasis
• Clean stagnant water • **Eggs:** Single, boatshaped with lateral floats • **Larva:** No siphon, near to surface of water **Adult:** • **Resting:** Inclined position • **Bite:** Morning, evening • **Flight:** 2–3 km • Spots on wings	• Artificial stored water • **Eggs:** Single, cigarshaped • **Larva:** Bottom feeder with siphon **Adult:** • **Resting:** Parallel to ground • **Bite:** Daytime • **Flight:** 100–200 m • Stripes on body and legs	• Dirty polluted water • **Eggs:** Cluster, rafts • **Larva:** Bottom feeder with siphon **Adult:** • **Resting:** Hunch back • **Bite:** midnight • **Flight:** 11–12 km • Brown color, big wings	• Large water body with aquatic vegetations—Pistia or water hyacinth plant • **Eggs:** Cluster, star-shaped • **Larva:** Attach to roots of plant with siphon **Adult:** • **Resting:** Squatting • **Bite:** Evening • **Flight:** 2–3 km • Large body, long legs

HIV-risk status	Option for ARV prophylaxis
High-risk infants • Mother not on ART • Viral load NOT done in mother • Viral load >1000 copies in mother • Newly infected/diagnosed mother within 6 weeks of delivery TR	**Dual prophylaxis** **Syr. Nevirapine. + Zidovudine** • Exclusive breastfeeding till 12 weeks • **Exclusive replacement feed—till 6 weeks HIT**
• All vaccines are to be given as per National schedule • Cotrimoxazole prophylaxis for all HIV-exposed children from 6 weeks of age till HIV is excluded by antibody test at 18 months	

NATIONAL TB ELIMINATION PROGRAMME (NTEP)

Diagnosis of TB

- **CXR:** Nonspecific test
- **Sputum: Screening test**
- **CBNATT: Diagnostic (confirmatory) test**
- **Liquid culture:** Gold standard
- **Line probe assay:** For drug sensitivity test

Must Remember

- **Sputum microscopy:** Screening test, highly sensitive test
- **CBNATT:** Confirmatory, high sensitivity and high specificity
- **CBNAAT** is done even in sputum positive cases to find the rifampicin status before initiating treatment

Good to Know

- **Conventional sputum microscopy** is done by ZN stain, it is the fastest method to diagnose TB as reports maybe available in 30 minutes
- **Fluorescent microscopy** is better method than conventional light microscopy, has higher sensitivity but expensive investigation. It is done using auramine rhodamine stain.

TB Definitions

- **MDR TB:** Resistant to INH and Rifampicin
- **Pre-XDR TB:** Resistant to INH + Rif + any FQ (except levofloxacin and moxifloxacin)
- **XDR TB:** Resistant to INH + Rif + any FQ + any Group A drugs (Group A drugs—linezolid, levofloxacin, moxifloxacin, bedaquiline, Delamanid)
- **TB cured:** Person who has completed treatment and has a negative sputum test report
- **Treatment completed:** Person who has completed treatment but no documented negative sputum test report or the sputum test report is not available
- **TB treatment failure:** Anytime SP after previous SN report or SP even at 5th month
- **Loss to follow-up:** With interruption of treatment for >1 month
- **Recurrent TB:** Patient is sputum positive any time after completing TB treatment

Treatment of TB

- **DSTB – (2) HRZE + (4) HRE**
  H-Mono DRTB – (6) ZERO
- **MDR TB – all oral – shorter BDQ regimen (4-6) CHOBZEE + (5) COZE**
  C—clofazimine, H—high-dose Isoniazid, O—levofloxacin, B—bedaquiline, Z—pyrazinamide, E—ethambutol, Et—ethionamide
- **XDR TB – all oral – Longer BDQ regimen (18–20) L2C2B**
  L—levofloxacin, L—linezolid, C—Clofazimine, C—cycloserine, B—bedaquiline

Recent Update

Bedaquiline, pretomanid, linezolid, and moxifloxacin (BPaLM) regimen—26-week regimen for MDR and XDR TB. It is more effective, lesser side effects and lesser pill burden. It was approved by NTEP for public health use in August 2024.

GDM Screening Guidelines PYQ

- **Two times: <12 weeks and 20–24 weeks**
- **Criteria is one step testing >140 mg/dL is positive for GDM**
- Fasting is not required
- Testing at 2 hours, postglucose load—75 g anhydrous glucose
- Trial with medical nutrition therapy (MNT) for 2 weeks for all positive GDM cases

ANC CARE

- Two doses of Td vaccine with gap of 4 weeks.
- In case of complete immunization within the last three years, then only ONE booster to be given
- Early pregnancy (<12 weeks or 1st trimester)—only folic acid supplements @ 400 mcg/day
- From 4th month onward—iron folic acid supplement (60 mg elemental iron + 500 mcg folic acid), daily tablets to be given till delivery and also up to 180 days after delivery. PYQ

CHILD CARE—MALNUTRITION

- **Types of malnutrition:**
  - Acute malnutrition—low weight for height PYQ
  - Chronic malnutrition—low height for age PYQ
  - General malnutrition (acute on chronic)—low weight for age
- Age-independent marker for malnutrition—mid-upper arm circumference (MUAC)

Must Remember

Shakir's tape: To measure mid-upper arm circumference

>12.5 cm: Normal

11.5–12.5: Mild-moderate malnutrition

<11.5 cm: Severe malnutrition

Growth and Nutritional Assessment—ICDS Growth Charts

Based on MGRS (multicenter growth reference study) standards, 3 zones:

- **Between +2SD and −2SD:** Normal, green zone PYQ
- **Between −2SD and −3SD:** Yellow zone, mild/moderate malnutrition
- **Below −3SD:** Red zone, severe malnutrition (Refer to images 5.18 and 5.19 on page no. 100–101)

Severe Acute Malnutrition (SAM)—Criteria PYQ

- Weight for height <-3SD
- Bilateral pedal edema
- MUAC <11.5 cm

Nutritional Rehabilitation Centers (For Management of SAM Children)

- **Stabilization phase:**
  - **Starter diet or F75 diet:** 75 cal/100 mL and 0.9 g protein/100 mL diet
  - No iron supplements are recommended in the stabilization phase
- **Transition phase:**
  - **Catch-up diet or the F100 diet:** 100 cal/100 mL and 2.9 g protein/100 mL diet
- **Maintenance phase:** Home-based diet, when child is able to complete 90% of feed and no danger signs or edema

5. Janani Suraksha Yojana (JSY)

- **Incentive for ASHA:**
  - Rural: ₹600
  - Urban: ₹400
- For mother age >19 years, and valid only for uptil 2 live births
- **Incentive for mother:**
  - Rural LPS: ₹1400, rural HPS: ₹700
  - Urban LPS: ₹1000, urban HPS: ₹600

6. Pradhan Mantri Surakshit Matritva Aashwasan (PMSMA) PYQ

- **Free screening for ANC females on 9th of every month**
- Color coding as per comorbidity:
  - Blue for Pregnancy Induced Hypertension
  - Yellow for any other comorbidity as DM, thyroid
  - Red for high-risk pregnancy

7. Pradhan Mantri Matru Vandana Yojana (PMMVY)

- **₹5000 incentive to female in installments**
- On early registration, institutional delivery, 1st dose vaccination of baby

Cash Incentives in **TWO installments** (previously child only 3 installments)—for the **first-born child**

1. **First installment: ₹3000/-**
   i. Registration of pregnancy AND
   ii. At least 1 ANC done within 6 months of LMP
2. **Second installment: ₹2000/-**
   i. Child-birth is registered AND
   ii. Child has received the first cycle of BCG, OPV, DPT and Hepatitis B

If the **second child in the family is a girl**, a benefit of ₹6000/- is recently introduced. It is given in single installment.

- In case of miscarriage/stillbirth, the beneficiary is considered a fresh beneficiary in future pregnancy.
- An eligible beneficiary can apply within 730 days of pregnancy.
- The female is also eligible for the JSY scheme, it is over and above the PMMVY.

8. Janani Shishu Suraksha Karyakram (JSSK)

- Free OPD, IPD, transport, treatment, investigation facilities
- Promote public health facility utilization

9. Home-Based Newborn Care (HBNC) PYQ

- ASHA visits for home-based care
- **Day 3, 7, 14, 21, 28, 42**
- **Home delivery:** 7 visits (add day 1 visit)
- **Institutional (normal) delivery:** 6 visits PYQ
- **Cesarean section:** 5 visits (No visit on day 3)
- ASHA receives incentive on 45th day of birth of child

10. Home-Based Care for Young Child (HBYC)

- **ASHA home visits—3 monthly, 5 visits** PYQ

11. Mother's Absolute Affection (MAA)

- Promote breastfeeding
- Normal delivery <1 hour, LSCS <4 hours

12. Integrated Child Protection Services (ICPS)

- For children in urban, semiurban areas, slums PYQ
- Protecting rights of children and avoiding any kind of abuse
- Web-based services, shelter homes, grants
- Institutional correction services for children

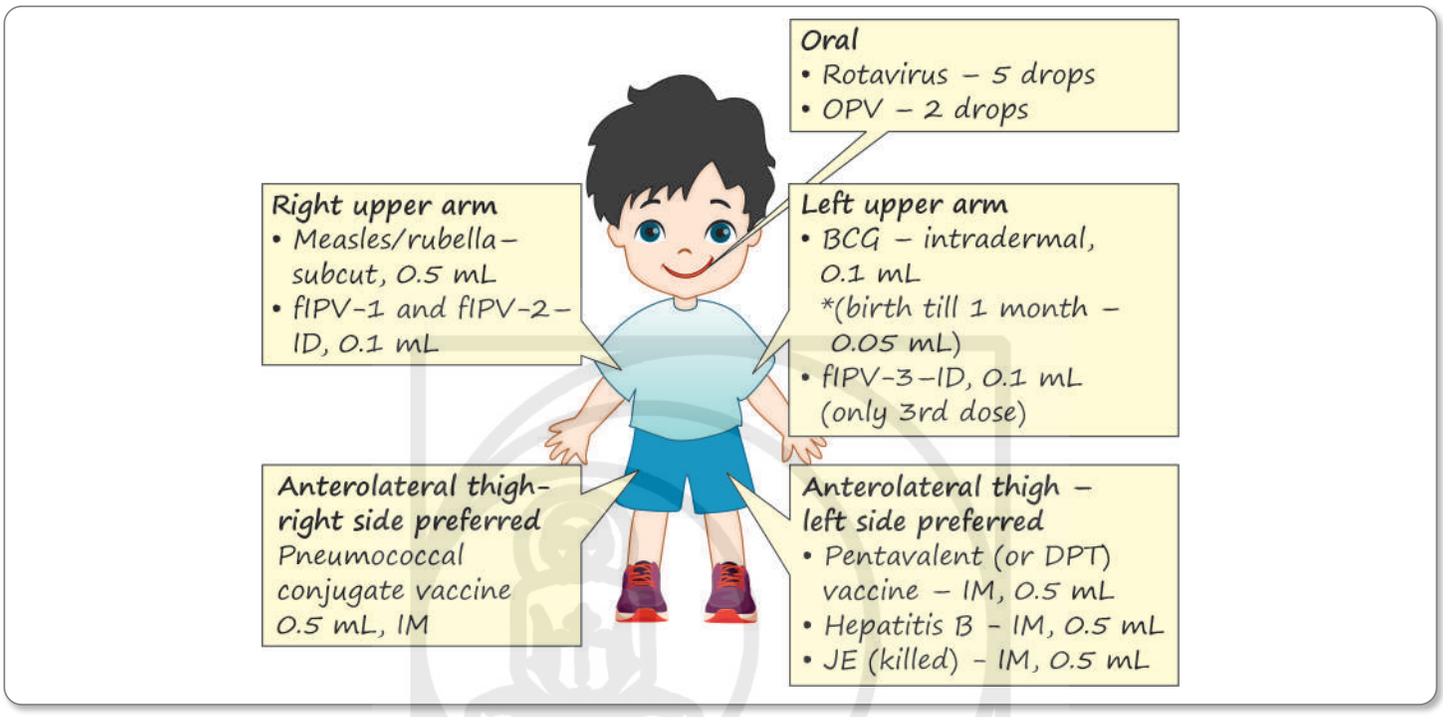
13. MusQan

- Quality of care for children up to 12 years in public health facilities
- Better services, more staff, more OPD, and improved quality of care

14. Lactation Management Centers (LMCs)

- Promote breast milk—feeding, donation, storage
- Breast milk banks of India
  - **Comprehensive lactation management center (CLMC):** Medical colleges/large district hospitals
  - **Lactation management unit (LMU):** District hospitals/subdistrict hospitals
  - **Lactation support unit (LSU):** At all delivery points

VACCINES—DOSE, ROUTE, SITE PYQ



Must Remember

Diluents in vaccines:

- BCG: Normal saline
- Measles: Distilled water
- JE live: Phosphate buffer

COLD CHAIN

Ice lined refrigerator: PYQ

- Needs 8 hours electricity in 24 hours
- Placement of vaccines:

Top of ILR	Mnemonic
Diluents	Don't
Hepatitis B	Hit
Penta, PCV	People
IPV	In
Td, DPT	This
Rotavirus	Room
BCG	Because
JE	Japanese
Measles	Manners
OPV	Outshine

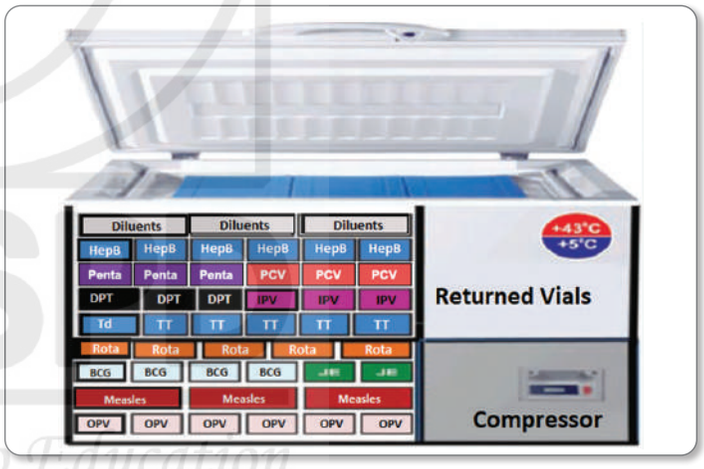


Fig.: Ice lined refrigerator

Must Remember

- Most heat sensitive: **Reconstituted BCG > OPV > measles/rubella**
- Most freeze sensitive: **Hepatitis B > Penta, PCV, DPT**
- Rotavirus vaccine is both freeze and heat sensitive

Open Vial Policy

All vaccines can be stored till 28 days after opening EXCEPT – measles, BCG PYQ

NEW SCHEMES AND RECENT UPDATES

List of Recent Updates (For detail please refer respective chapter)

- Incentive in Pradhan Mantri Matru Vandana Yojana (PMMVY) in mother and child care is updated
- AB-Health wellness centers—name changed to Pradhan Mantri-Ayushman Arogya Mandir
- NHM name changed to Pradhan Mantri-Samagra Swasthya Mission
- NACP: 95-95-95-95 strategy implemented PYQ
- fIPV-3 dose started under NIS PYQ
- IXCHIQ vaccine approved for chikungunya prevention
- JE killed vaccine incorporated under NIS
- Incentive under Nikshay Poshan Yojana is updated PYQ
- Updated NLEP leprosy classification for one nerve involvement
- Updated info on Nipah, Zika, mPox PYQ
- Kit 8, Brown kit for anorectal discharge is added to the syndromic kits.

- **AMRIT:** Affordable Medicines and Reliable Implants for Treatment
- **PMSSY:** Pradhan Mantri Swasthya Suraksha Yojana – launching AIIMS-like institutes
- **AB-PMJAY:** Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana
  - 50 crore population, 10 crore families
  - **Health insurance of up to 5 Lakh INR per family** PYQ
  - No limit of age, gender, type of disease, members in family
  - **Comprehensive primary healthcare—launching health wellness centers with CHO—Community Health Officers (Nursing staff)**
  - **Update:** Ayushman Vay Vandana cards: Include complete health coverage for all citizens age >70 years. This is linked to the Pradhan Mantri Vaya Vandana Yojana (PMVVY) which is pension scheme providing a guaranteed income for senior citizens (aged 60 and above).
- **POSHAN Abhiyaan:** Pradhan Mantri overarching scheme for holistic nutrition, MoHFW
  - **Decrease LBW and stunting by 2% every year**
  - **Decrease anemia by 3% every year**
- **PM-POSHAN Scheme:** Pradhan Mantri Poshan Shakti Nirman scheme, Ministry of Education.
  - **Rename of National Mid-Day Meal Scheme**
  - Provide Mid-Day Meals to Bal Vatika (pre-school) and Class 1–8th class students.
  - For primary classes: 450 kcal + 12 g protein
  - For upper-primary classes: 700 kcal + 20 g protein
- **Jai Vigyan:** To know about Rheumatic fever prevalence, streptococcal infection prevalence, deeper understanding of pathology of RHD and RF, vaccine development for RHD/RF
- **Award/Incentives:**
  - **Kayakalp:** For sanitation and cleanliness in public hospitals
  - **Nirmal gram puraskar:** For cleanliness and sanitation with safe water supply in villages
- **Ujala, Ujjwala, Ujjawala:**
  - **Ujjawala:** A Comprehensive Scheme for Prevention of trafficking and Rescue, Rehabilitation and Reintegration of Victims of Trafficking and Commercial Sexual Exploitation
  - **Pradhan Mantri Ujjwala Yojana (PMUY):** Safer fuels, petroleum ministry PYQ
  - **National Ujala distribution scheme:** For energy efficient lighting by LED bulbs.
- **Indradhanush:**
  - **Mission Indradhanush:** For safe vaccine and universal vaccine coverage PYQ
  - **Indradhanush scheme:** For clean bedsheets, 7 days, 7 colored bedsheets in ESI hospitals

IMPORTANT TABLES

TABLE 1: DEMOGRAPHIC TRANSITION MODEL

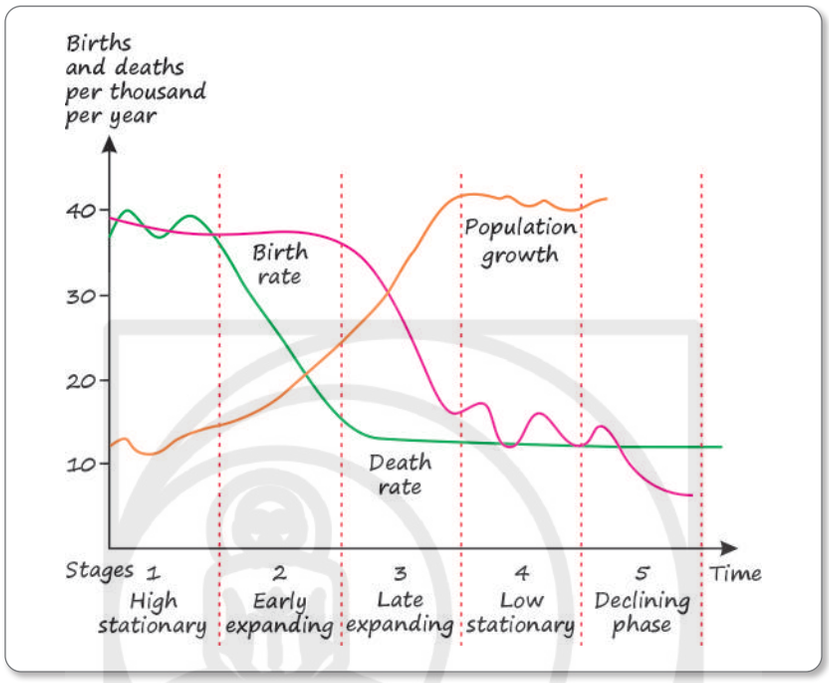


Fig.: Demographic transition model

Stages	Name	Birth rate	Death rate	Population
Phase 1	High stationary	High	High	Stable
Phase 2	Early expanding	High	Starts declining	Rapid increasing
Phase 3	Late expanding	Starts declining	Slow decline	Slow increasing
Phase 4	Low stationary	Slow decline	Slow decline	Stable
Phase 5	Declining	Slow decline	Very low/stable	Declining

TABLE 2: TARGETS FOR NATIONAL HEALTH PROGRAMMES (NHPs)

National TB Elimination Programme	• 90% reduction in TB-related deaths • 80% reduction in the TB incidence
National Vector Borne Disease Control Programme	• Annual parasite incidence <1/1000 population • Annual blood examination rate >10% • Microfilaremia rate <1% among children
National Polio Surveillance Programme	• Acute flaccid paralysis reporting rate >1 per lakh population per year • Stool adequacy rate >80%
National Programme for Control of Blindness and Visual Impairment	• Blindness rate <0.25% • Bitot spots <0.5% in community • WHO recommends 3000–6000 surgeries per million per year (India has 75% cataract surgery rate)

Contd...

Reproductive Maternal Newborn Child Adolescent Health Plus Nutrition (RMNCAH+N)	• Neonatal mortality rate <12/1000 live births • Under five mortality rate <25/1000 live births • Maternal mortality rate <70/lakh live births
National AIDS Control Programme	• 95% of all HIV should be diagnosed • 95% of all diagnosed should be on treatment • 95% of all on treatment, should have adequate viral load suppression
National Iodine Deficiency Disorder Control Programme	Goiter rate <5% among children
National Leprosy Eradication Programme	• Prevalence rate <1/10,000 population • Annual new case detection rate <10/lakh population • Grade 2 disability among general population <1/million population

TABLE 3: DEMOGRAPHIC DATA AND MORBIDITY REPORTS [2025-SRS UPDATE (SEPTEMBER)]

Indicator	Previous value	Current value	Highest in	Lowest in
Birth rate (per 1000 population)	19.3	**18.4**	Bihar (25.8)	Andaman and Nicobar Islands (10.1)
Death rate (per 1000 population)	7.5	**6.4**	Chhattisgarh (8.3)	Chandigarh (4)
Infant mortality rate (per 1000 live births)	27	**25**	Madhya Pradesh (37)	Manipur (3)
Neonatal mortality rate (per 1000 live births)	20	**19**	Madhya Pradesh (27)	Kerala (4)
Under five mortality rate (per 1000 live births)	32	**29**	Madhya Pradesh (44)	Kerala (8)
Maternal mortality ratio (per lakh live births)	93	**88**	Odisha (153)	Andhra Pradesh, Kerala (30)
Maternal mortality rate (per lakh females in reproductive age)	6.0	**5.0**	Madhya Pradesh (12)	Kerala (1)
Natural growth rate	11.8	**12**	Bihar (19.7)	Andeman and Nicobar Islands (3.8)
Lifetime maternal risk	0.20%	**0.18%**	Madhya Pradesh (0.41%)	Kerala (0.05%)
Sex ratio at birth	914	**917**	Chhattisgarh (974), Kerala (971)	Uttarakhand (868)

Source: Ministry of Home Affairs

- **Maternal Mortality Ratio (MMR):** This is derived as the proportion of maternal deaths per 1,00,000 live births, reported under the SRS.
- **Maternal Mortality Rate:** This is calculated as maternal deaths to woman in the ages 15–49 per lakh of women in that age group, reported under SRS.

IMPORTANT IMAGES AND LOGOS

1. LOGOS/SPOTTERS OF PUBLIC HEALTH IMPORTANCE

Fig. 1.1: Birth and Death Registrar of India

Fig. 1.2: Digital India Campaign

Fig. 1.3: National Vector Borne Disease Control Programme

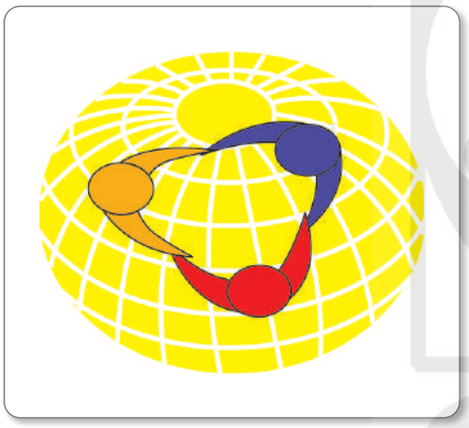


Fig. 1.4: IDSP—Integrated Disease Surveillance Project

Fig. 1.5: NLEP—National Leprosy Eradication Programme

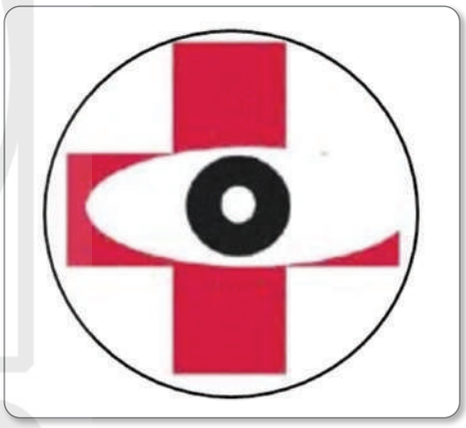


Fig. 1.6: NPCBVI—National Programme for Control of Blindness and Visual Impairment

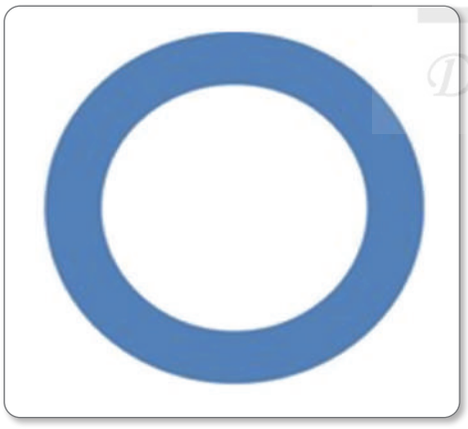


Fig. 1.7: Unite for Diabetes—Logo

Fig. 1.8: MBI kits for iodine testing in household salt

Fig. 1.9: National Program for Noncommunicable Diseases

IMPORTANT FORMULAS

EPIDEMIOLOGY

1. Attack rate (AR) = $\frac{\text{Total number of cases in an area during a specified period}}{\text{Total population at the start of period}} \times 100$

2. Secondary attack rate (SAR) = $\frac{\text{Total number of cases arising from the primary case within an incubation period}}{\text{Total number of susceptible contacts}} \times 100$

3. Standardized mortality ratio = $\frac{\text{Observed deaths}}{\text{Expected deaths}} \times 100$

4. Relative risk (risk ratio) = $\frac{\text{Incidence exposed}}{\text{Incidence in nonexposed}}$

5. Odds ratio = cross product ratio (AD/BC)

6. Attributable risk proportion = $\frac{\text{Incidence in exposed} - \text{Incidence in nonexposed}}{\text{Incidence in exposed}}$

7. Population attributable risk = $\frac{\text{Incidence in total group} - \text{Incidence in nonexposed}}{\text{Incidence in total group}}$

8. Absolute risk reduction (ARR) =
[Event rate in experimental (exposed) group − Event rate in control (nonexposed) group]

9. Number needed to treat (NNT) = $\frac{1}{\text{ARR}} = \frac{1}{\text{Experimental event rate} - \text{control event rate}}$

10. Case fatality rate = $\frac{\text{Number of deaths due to a particular disease}}{\text{Total number of cases of the same disease}} \times 100$

11. Proportional mortality rate = $\frac{\text{Number of deaths due to a particular disease}}{\text{Total deaths in a year}} \times 100$

12. Cause specific death rate = $\frac{\text{Number of deaths due to a particular disease}}{\text{Mid year population}} \times 1000$

DEMOGRAPHY

13. Annual growth rate = $\frac{\text{Crude birth rate} - \text{crude death rate}}{10}$

14. Total fertility rate (TFR) = $\frac{5 \times \sum_{15-19}^{45-49} ASFR}{1000}$

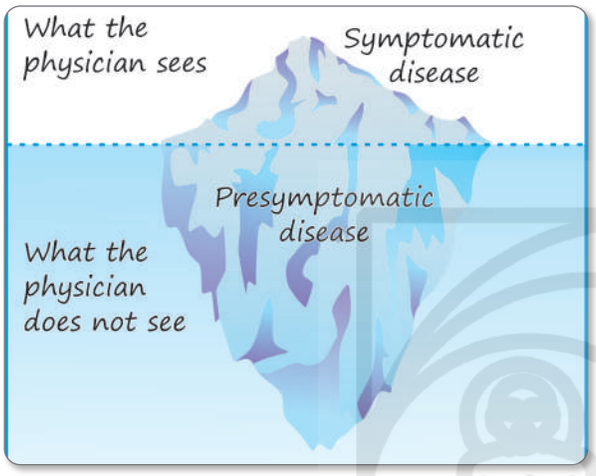
15. Stillbirth rate (SBR) = $\frac{\text{Number of stillbirths during the year}}{\text{Number of stillbirths and live births during the same year}} \times 1000$

LATEST QUESTION PAPERS

- → NEET PG 2025 (MEMORY-BASED)
- → NEET PG 2024 (MEMORY-BASED)
- → NEET PG 2023 (MEMORY-BASED)
- → NEET PG 2022 (MEMORY-BASED)
- → NEET PG 2021 (MEMORY-BASED)
- → INI-CET NOVEMBER 2025 (MEMORY-BASED)
- → INI-CET MAY 2025 (MEMORY-BASED)
- → INI-CET NOVEMBER 2024 (MEMORY-BASED)
- → INI-CET MAY 2024 (MEMORY-BASED)
- → INI-CET NOVEMBER 2023 (MEMORY-BASED)
- → INI-CET MAY 2023 (MEMORY-BASED)
- → INI-CET NOVEMBER 2022 (MEMORY-BASED)
- → INI-CET MAY 2022 (MEMORY-BASED)
- → INI-CET MAY 2021 (MEMORY-BASED)
- → FMGE JULY 2025 (MEMORY-BASED)
- → FMGE JANUARY 2025 (MEMORY-BASED)
- → FMGE JULY 2024 (MEMORY-BASED)
- → FMGE JANUARY 2024 (DECEMBER 2023) (MEMORY-BASED)
- → FMGE JULY 2023 (MEMORY-BASED)
- → FMGE JANUARY 2023 (MEMORY-BASED)
- → FMGE JUNE 2022 (MEMORY-BASED)
- → FMGE DECEMBER 2021 (MEMORY-BASED)
- → FMGE 2021 (MEMORY-BASED)

NEET PG 2024 (Memory-Based)

21. Which among the following diseases will be the best representation in the submerged portion?



a. Influenza
b. Tetanus
c. Rabies
d. Chickenpox

Ans. a. Influenza

[Ref: Park, 27th, p. 46]

Explanation: Diseases which are in large, submerged portion of the iceberg are:

Mnemonic

PM Jumped In Ditch To Have Ruby

- Polio
- Mumps
- JE
- Influenza
- Diphtheria
- Typhoid
- Hep A and Hep B
- Rubella

Diseases which ARE NOT in the iceberg: MTR (Measles, Tetanus, Rabies)

22. A pharmacist selects samples randomly from three groups of medicines made of plant, animal and synthetics. What kind of sampling is this?

a. Simple random sampling
b. Systemic sampling
c. Cluster sampling
d. Stratified sampling

Ans. d. Stratified sampling

[Ref: Park's Textbook of Preventive and Social Medicine, 27th ed., p. 978]

Explanation: In the MCQ, the medicines are divided based on the origin (plant, animal, synthetics) and then sample is taken randomly from each group. This is example of stratified sampling.

23. Which of the following is the communication barrier, if interpretation of words is understood in a different manner?

a. Semantic barrier
b. Linguistic barrier
c. Psychological barrier
d. Cultural barrier

Ans. d. Cultural barrier

[Ref: Park's Textbook of Preventive and Social Medicine, 27th ed., p. 984]

Explanation: The different barriers in communication could be:

Physiological	Difficulties in hearing, expression
Psychological	Emotional disturbances, neurosis, levels of intelligence, language or comprehension difficulties
Environmental	Noise, invisibility, congestion
Cultural	Illiteracy, levels of knowledge and understanding, customs, beliefs, religion, attitudes, economic and social class differences, language variations, cultural difficulties between foreigners and nationals, between urban education and the rural population.

24. Identify the image representing the National Leprosy Eradication Programme.

a. 

b. 

c. 

d. 

Ans. a

[Ref: www.nhp.nic.in]

4. Women with physical disabilities that qualify as '**major disability**' according to the Rights of Persons with Disabilities Act, 2016;
5. Women living with **mental illnesses**.
6. Pregnancies where "**fetal malformation** has substantial risk of being incompatible with life" or if a child, "may suffer from such physical or mental abnormalities to be seriously handicapped"; and
7. Pregnant women in **humanitarian settings**, disaster, or emergency situations as declared by the Government.

Also note the following updates in MTP Amendment 2021:

- Failure of contraception as a ground for abortion until 20 weeks is now available to a woman and 'her partner'
- Medical abortion timeline increased to 9 weeks of gestation (previous was 7 weeks)

40. For MDR/RR TB, what is the indication of short course Bedaquiline?

a. Rifampicin sensitive, only isoniazid resistance
b. Both Rifampicin and Isoniazid resistance with both InhA and KatG gene mutation
c. Mutation only to InhA or KatG gene along with Rifampicin resistance
d. TB meningitis with hydrocephalus

Ans. c. Mutation only to InhA or KatG gene along with Rifampicin resistance

[Ref: Guidelines for Programmatic Management of Drug Resistant Tuberculosis, NTEP, 2021, p. 47; Park's Textbook of Preventive and Social Medicine, 27th ed., p. 225]

Explanation: The eligibility criteria for shorter oral Bedaquiline—containing MDR/RR TB regime is:

1. DST based inclusion criteria:

- Rifampicin resistance detected/inferred
- MDR/RR-TB with H resistance detected/ inferred based on inhA mutation only or based on katG mutation only (not both)
- MDR/RR-TB with FQ resistance not detected

2. Other inclusion criteria:

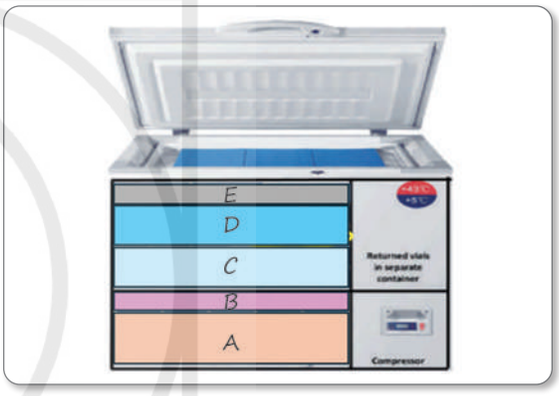
- Children, aged 5 years to <18 years of age and weighing at least 15 kg, given their special needs, in consultation with the pediatrician
- No history of exposure to previous treatment with second-line medicines in the regimen (Bdq, Lfx, Eto or Cfz) for >1 month (unless susceptibility to these medicines is confirmed)
- No extensive TB disease
- No severe extrapulmonary TB

The exclusion criteria are:

- MDR/RR-TB patients with H resistance detected with both KatG and InhA mutation; and
- MDR/RR-TB patients with FQ resistance detected.

Contd...

41. Which of the following vaccine will be placed at level A?



a. OPV
b. Hepatitis B
c. Pentavalent
d. DPT

Ans. a. OPV

[Ref: Immunization Handbook for Medical Officers (2019), MoHFW. p. 87; Park's Textbook of Preventive and Social Medicine, 27th ed., p. 119]

Explanation: Placement of vaccines from top to bottom is as follows:

Heat sensitive from top to bottom in ILR

Mnemonic

Do not Hit People In This Room Because Japanese Manners Outshine

- *D* – Diluents
- *H* – Hep B
- *P* – Penta, PCV
- *In* – IPV
- *T* – Td, TT
- *Ro* – Rotavirus
- *Bc* – BCG
- *Japanese* – JE
- *M* – Measles, Rubella
- *O* – OPV

Ans. c. Chance of abortion in 3HP is same as 6H

[Ref: Guidelines for TB preventive therapy in India, NTEP (2021), p. 23]

Explanation: TB preventive therapy will be given for:

- People living with HIV (adults and children >12 months)
- Infants <12 months in contact with active TB
- Household contacts below 5 years of pulmonary TB patients

3HP is weekly doses of Isoniazid and Rifapentine for 3 months and is only for individuals age <2 years.

Recent studies have shown that 3HP is better and has more compliance compared to other TB preventive drugs.

60. The order of Disaster Management cycle is:

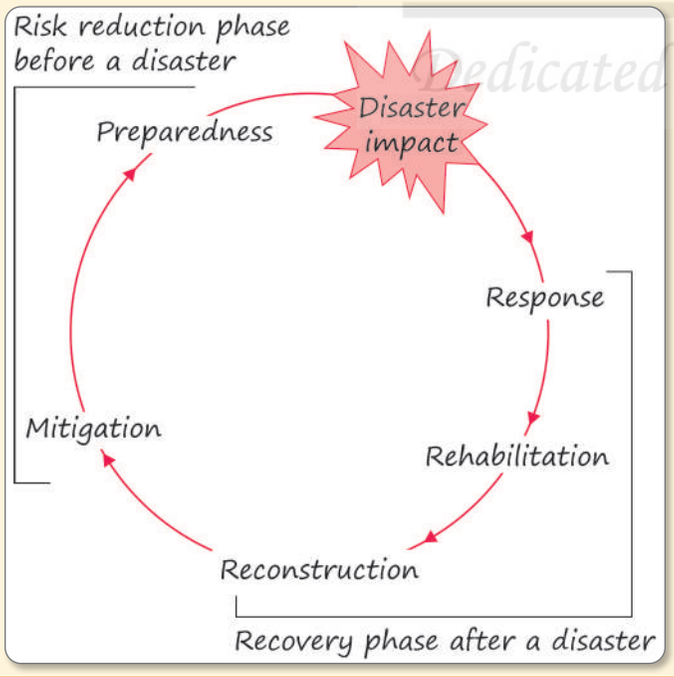
A. Disaster impact
B. Response
C. Mitigation
D. Rehabilitation

a. A → >B → >C → >D
b. A → >B → >D → >C
c. B → >A → >C → >D
d. B → >A → >D → >C

Ans. d. B → >A → >D → >C

[Ref: Park's Textbook of Preventive and Social Medicine, 27th ed., p. 923]

Explanation:



NEET PG 2023 (Memory-Based)

61. A study was conducted to find the association of aniline dye and bladder cancer. Study was done by comparing two groups of people working in aniline dye factory and those who are office workers of same factory using records of employment for past 20 years to assess the risk. What is the type of study?

a. Retrospective cohort
b. Prospective cohort
c. Case control
d. Intervention and response

Ans. a. Retrospective cohort

[Ref: Park's Textbook of Preventive and Social Medicine, 27th ed., p. 84]

Explanation: In retrospective Cohort (or historical cohort) study, the researcher goes back in time to select people with risk factor using previous employment or medical records.

62. A 10-year-old child in a school should be given which of the following vaccines?

a. Td vaccine
b. Rota virus vaccine
c. Measles vaccine
d. Hepatitis B vaccine

Ans. a. Td vaccine

[Ref: Park's Textbook of Preventive and Social Medicine, 27th ed., p. 136]

Explanation: National Immunization Schedule for Infants and Children 2020 states TT/Td for 10 years and 16 years, dose of 0.5 mL intramuscular in upper arm.

63. Choice of contraception for a newlywed couple is:

a. Condoms
b. Combined OCP
c. Copper T
d. DMPA injection

Ans. b. Combined OCP

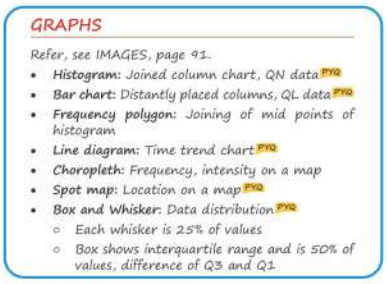
[Ref: Park's Textbook of Preventive and Social Medicine, 27th ed., p. 574]

ONE Touch Preventive & Social Medicine (PSM)

For NEET PG/FMGE/INI-CET/CMS Aspirants/Undergraduates

Theory—A concise summary of text (in 60 pages) and most important points to remember are given from the examination point of view. The text is designed in accordance with the recent CBME and NEXT exam curriculum.

Images and Logos—Separate section on Important Images & Logos related to Community Medicine.

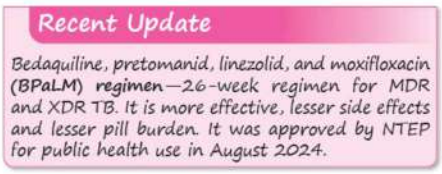


GRAPHS

Refer, see IMAGES, page 91.

- **Histogram:** Joined column chart, QN data PYQ
- **Bar chart:** Distantly placed columns, QL data PYQ
- **Frequency polygon:** Joining of mid points of histogram
- **Line diagram:** Time trend chart PYQ
- **Choropleth:** Frequency, intensity on a map
- **Spot map:** Location on a map PYQ
- **Box and Whisker:** Data distribution PYQ
  - Each whisker is 25% of values
  - Box shows interquartile range and is 50% of values, difference of Q3 and Q1

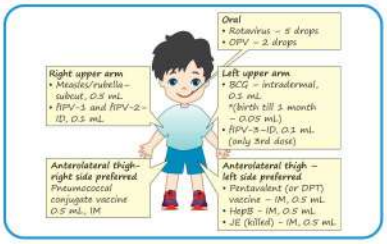
High-Yield Topic/PYQs—Frequently asked topics/content have been highlighted with PYQ marking for better exam centric preparation.



Recent Update

Bedaquiline, pretomanid, linezolid, and moxifloxacin (BPaLM) regimen—26-week regimen for MDR and XDR TB. It is more effective, lesser side effects and lesser pill burden. It was approved by NTEP for public health use in August 2024.

Recent Updates—Text is supplemented with Recent update boxes providing the latest advancements in the field of Community Medicine.



Important Images, Illustrations and Tables—Important images, illustrations and tables have been integrated within the text for easy learning and long-term retention.

Last 5 years' Exam Questions—Questions up to Nov 2025 (FMGE Jul 2025, INI-CET Nov 2025 and NEET PG 2025) are provided to develop an idea about the trend of questions and also to know about the recently asked topics.

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Mukhmohit Singh, MBBS, MD (Community Medicine) PGDHS, has been working as a faculty for training the students of PSM subject for various entrance exams across and outside India with a very high success rate. He has clinical-cum-research experience of working as Medical Officer in corporate hospitals as well as research fellow for projects in PGIMER, Chandigarh. He is associated with Smt. Vidyavati Trust which is providing care and innovations in health care. He also has vast array of field and community experience while working as an Epidemiologist for UT Administration, Chandigarh and as Assistant Professor (Epidemiology) in the Department of Community Medicine for teaching and training of the undergraduate MBBS students.

The author has been awarded Gold Sponsorship Award for work on COPD at the prestigious European Respiratory Society. He has also been awarded the certificates for successful completion of Diploma course for Advancements and Management Plans for Diabetes in India for Thyroid Disorders and Advance Epidemiology programs. The author has contributed to research in the field of pulmonary medicine, and has various papers published in national and international journals. He is also an active member of various organizations such as ERS, RSSDI, IAPSM, IPHA. He is also an international faculty for Epidemiology and Public Health and has been teaching medical doctors in USA and Canada for Licensing Exams.

Shveta Saini, MBBS, MD (Community Medicine), has been working as an Assistant Professor, Community Medicine and Public Health, Preventive Medicine and Public Health Specialist. She is very dynamic and enthusiastic in her field and has been duly recognized for her active contributions to the field of community medicine. She is a member of several institutions, like Indian Public Health Association and Indian Association of Preventive and Social Medicine. Her flawless delivery of lectures and clarity in the concepts make her very popular amongst the students. She along with Dr Mukhmohit Singh has authored several books, viz. Review of PGI Chandigarh (PGMEE) 2015–2016 and 2016–2017, Biostatistics Review for PGMEE and PSM Trends for PGMEE.

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