*PUBLIC HEALTH BULLETIN-PAKISTAN*

# Integrated Disease Surveillance & Response (IDSR) Report

**Center of Disease Control**
**National Institute of Health, Islamabad**

http:/www.phb.nih.org.pk/

- The Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin provides an overview of disease trends, outbreak alerts, and other important public health information. We hope to increase awareness and promote preventive measures by sharing this information.

- We encourage you to read the bulletin and share it with your colleagues, family, and friends. Together, we can work towards a healthier community.



UK Health Security Agency

World Health Organization

USAID

## Preface

Welcome to the 24th issue of the Weekly IDSR Public Health Bulletin. In this issue, we take a look at the latest disease trends, outbreak alerts, and other important public health information.

Overall, an increase in Malaria and Acute Diarrhea cases observed this week. We provide an update on the latest case numbers and response activities. We also discuss the importance of continued vigilance and prevention measures.

- ✓ This week 03 cases of CCHF are reported from Sherani, Balochistan.
- ✓ Cases of Anthrax also reported from Balochistan (04) and KPK (08), waiting for verification from concerned districts.
- ✓ HIV/AIDS cases are from Sukkar and field investigations are in progress.
- ✓ Case clustering alerts are generated and shared with the provinces for response and updates.

In addition to these two major topics, we also cover a variety of other public health issues. We hope that you will find this issue of the Weekly IDSR Public Health Bulletin to be informative and helpful. Please feel free to share it with your colleagues, family, and friends. Together, we can work towards a healthier community.

Thank you for reading.

Sincerely,
The Chief Editor

- During week 24, most frequent reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, B. Diarrhea, VH (B, C), Typhoid, SARI, AVH (A&E) and Mumps.
- This week, a rise in cases of Malaria and Typhoid observed.
- Among Vaccine Preventable Diseases (VPDs) ,93 cases of Pertussis reported mainly from Balochistan. In addition, Measles, Mumps and Chickenpox cases are reported in high numbers. All are suspected cases and need field verification.
- Three cases of CCHF are reported from Balochistan. Field investigation is in progress and blood samples collected.

| Diseases | Province | District | Health Facility | No. of cases |
|---|---|---|---|---|
| AWD | SINDH | Sanghar | Civil Surgeon hospital Umerkot | 16 |
| | | Umerkot | Civil Surgeon DHQ Umerkot<br>RHC Hyder Farm<br>THQ hospital Kunri<br>THQ hospital Samro | 236<br>101<br>180<br>139 |
| | Balochistan | Mastung | BHU Ash khan Rodani<br>Ghous Bakhsh Rehsani Hospital<br>DHQ, Hospital Mastung | 36<br>50<br>15 |
| | | Duki | BHU Tajaan | 08 |
| | KPK | Buner | BHU Nanser<br>BHU Bangirai<br>BHU Toorwarsak<br>CD Bagra | 46<br>81<br>63<br>65 |
| ILI | SINDH | Karachi Kemari | Asif Colony | 140 |
| | | Naushero Feroze | RHC Mehrab Pur | 198 |
| HIV/AIDS | KPK | Swat | BHU Mian Kalay | 02 |
| | SINDH | Sakkar | GMC hospital Sukkar | 08 |
| Bloody Diarrhea | KPK | Mardan | Type-D Hospital Shahbaz Garhi<br>BHU Parkho Dheri<br>Type-D Hopsital Toru | 40<br>15<br>13 |
| Brucellosis | KPK | Swat | BHU Drushkhela | 10 |
| Meningitis | SINDH | Sanghar | BHU Gujri | 35 |
| Anthrax | SINDH | Jamshoro | BHU Bubak | 08 |

All are suspected cases and need field verification.

**IDSR compliance attributes**

- The national compliance rate for IDSR reporting in 125 implemented districts is increased from 68%. to 73% for this week
- The compliance rate for each region is higher than the national compliance rate. This suggests that some regions are doing a better job of reporting diseases than others.
- The highest compliance rate is in Sindh, where 81% of the expected reports were received. This attributes to Sindh's strong public health infrastructure, a well-trained workforce, and a high level of awareness of the importance of disease surveillance and response.
- The lowest compliance rate is in Gilgit Baltistan 53%, (previously 100%), where 62 new facilities has been added to IDSR network from district Khizer.
- Overall, the IDSR reporting compliance rate is good, but there is still room for improvement.

| Region | Expected Reports | Received Reports | Compliance(%) |
|---|---|---|---|
| Khyber Pakhtunkhwa | 1527 | 1196 | 78 |
| Azad Jammu Kashmir | 440 | 331 | 75 |
| Islamabad Capital Territory | 27 | 19 | 70 |
| Balochistan | 1146 | 632 | 55 |
| Gilgit Baltistan | 93 | 49 | 53 |
| Sindh | 1901 | 1543 | 81 |
| National | 5134 | 3770 | 73 |

# Pakistan

## Table 1: Province/Area wise distribution of most frequently reported cases during week 24, Pakistan.

| Diseases | AJK | Balochistan | GB | ICT | KP | Punjab | Sindh | Total |
|---|---|---|---|---|---|---|---|---|
| AD (Non-Cholera) | 146 | 9,651 | 0 | 1 | 5,697 | NR | 58,066 | 73,561 |
| Malaria | 3204 | 7,530 | 95 | 460 | 28,642 | 1250 | 43,769 | 84,950 |
| ILI | 2,684 | 4,398 | 53 | 1011 | 6,088 | 9 | 12,335 | 26,578 |
| ALRI < 5 years | 892 | 2,100 | 82 | 1 | 1414 | NR | 8266 | 12,755 |
| B. Diarrhea | 114 | 1,820 | 15 | 2 | 1169 | NR | 2,866 | 5,986 |
| VH (B, C & D) | 17 | 135 | 4 | 2 | 87 | NR | 4098 | 4,343 |
| SARI | 55 | 1,363 | 19 | 0 | 1007 | NR | 1,858 | 4,302 |
| Typhoid | 484 | 991 | 66 | 0 | 2,248 | NR | 486 | 4,275 |
| Dog Bite | 52 | 17 | 5 | 2 | 348 | NR | 701 | 1,125 |
| AVH (A & E) | 135 | 134 | 6 | 4 | 118 | NR | 570 | 967 |
| Mumps | 41 | 117 | 0 | 0 | 156 | NR | 561 | 875 |
| CL | 66 | 443 | 3 | 18 | 23 | NR | 32 | 585 |
| AWD (S. Cholera) | 0 | 161 | 0 | 0 | 564 | NR | 0 | 725 |
| Measles | 20 | 68 | 0 | 0 | 276 | NR | 45 | 409 |
| Chickenpox/ Varicella | 24 | 50 | 8 | 16 | 184 | NR | 73 | 355 |
| Pertussis | 5 | 80 | 0 | 0 | 6 | NR | 35 | 126 |
| Gonorrhea | 0 | 20 | 0 | 0 | 36 | NR | 79 | 135 |
| Dengue | 5 | 79 | 0 | 0 | 8 | NR | 1 | 93 |
| VL | 5 | 4 | 0 | 0 | 5 | NR | 18 | 32 |
| Meningitis | 1 | 0 | 0 | 1 | 12 | NR | 13 | 27 |
| AFP | 0 | 4 | 0 | 0 | 16 | NR | 2 | 22 |
| Brucellosis | 0 | 0 | 0 | 0 | 4 | NR | 11 | 15 |
| Anthrax | 0 | 4 | 0 | 0 | 0 | NR | 6 | 10 |
| Syphilis | 0 | 8 | 0 | 0 | 0 | NR | 0 | 8 |
| Leprosy | 0 | 0 | 0 | 0 | 0 | NR | 0 | 0 |
| CCHF | 1 | 5 | 0 | 0 | 3 | NR | 0 | 9 |
| HIV/AIDS | 1 | 3 | 0 | 0 | 0 | NR | 2 | 6 |
| NT | 2 | 3 | 0 | 0 | 0 | NR | 1 | 6 |
| Chikungunya | 1 | 1 | 0 | 0 | 2 | NR | 0 | 4 |
| Diphtheria (Probable) | 0 | 1 | 2 | 0 | 0 | NR | 0 | 3 |
| Rubella (CRS) | 0 | 3 | 0 | 0 | 0 | NR | 0 | 3 |

## Figure 1: Most frequently reported suspected cases during week 24, Pakistan

# Sindh
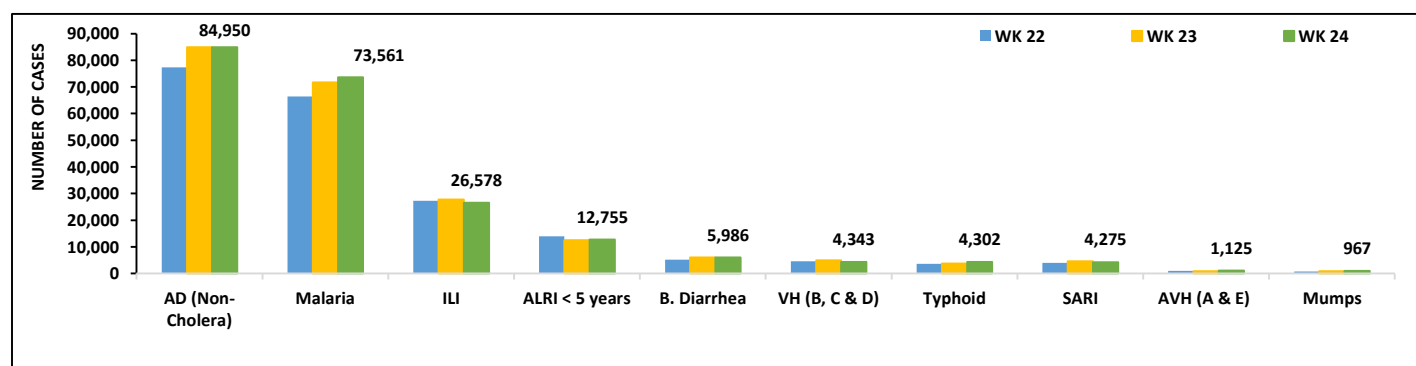
- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, VH (B, C, D), B. Diarrhea, Typhoid, AVH (A&E), Mumps and dog bite.
- Except for Malaria, there is decline in cases of all diseases reported this week.
- Dog bite cases increased and mostly reported from Sanghar, Badin and Thatta.

**Table 2: District wise**

**distribution of most frequently reported suspected cases during week 24, Sindh**

| DISTRICTS | AD (Non-Cholera) | Malaria | ILI | ALRI < 5 years | B. Diarrhea | Typhoid | SARI | Measles | VH (B, C & D) | Dengue | Dog Bite |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Badin | 2,563 | 3,022 | 79 | 517 | 143 | 63 | 0 | 12 | 159 | 0 | 86 |
| Dadu | 4,239 | 4,828 | 142 | 846 | 247 | 229 | 29 | 3 | 32 | 0 | 0 |
| Ghotki | 997 | 907 | 0 | 358 | 126 | 43 | 0 | 1 | 433 | 0 | 0 |
| Hyderabad | 1,248 | 288 | 97 | 21 | 0 | 14 | 0 | 1 | 77 | 2 | 0 |
| Jacobabad | 2,201 | 1,833 | 27 | 932 | 144 | 22 | 219 | 2 | 272 | 0 | 40 |
| Jamshoro | 93 | 137 | 0 | 6 | 2 | 5 | 0 | 0 | 0 | 0 | 0 |
| Kamber | 2,226 | 6,180 | 0 | 279 | 125 | 28 | 0 | 0 | 79 | 0 | 0 |
| Karachi Central | 979 | 73 | 1,215 | 16 | 76 | 136 | 0 | 6 | 131 | 3 | 1 |
| Karachi East | 274 | 74 | 104 | 0 | 5 | 0 | 0 | 0 | 0 | 13 | 2 |
| Karachi Keamari | 403 | 8 | 163 | 15 | 2 | 7 | 0 | 1 | 0 | 0 | 0 |
| Karachi Korangi | 382 | 67 | 44 | 5 | 4 | 4 | 0 | 2 | 0 | 7 | 1 |
| Karachi Malir | 1,027 | 88 | 967 | 289 | 85 | 49 | 60 | 0 | 15 | 1 | 4 |
| Karachi South | 117 | 29 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Karachi West | 597 | 76 | 358 | 148 | 26 | 22 | 30 | 0 | 13 | 14 | 32 |
| Kashmore | 707 | 1,826 | 372 | 223 | 48 | 25 | 4 | 0 | 74 | 0 | 2 |
| Khairpur | 2,496 | 3,764 | 0 | 791 | 328 | 292 | 30 | 0 | 149 | 0 | 38 |
| Larkana | 2,055 | 10,935 | 0 | 179 | 198 | 3 | 0 | 0 | 117 | 0 | 0 |
| Matiari | 1,912 | 1,108 | 0 | 193 | 97 | 94 | 12 | 1 | 473 | 6 | 28 |
| Mirpurkhas | 2,501 | 2,529 | 2,583 | 342 | 78 | 34 | 0 | 0 | 50 | 0 | 0 |
| Naushero Feroze | 2,048 | 2,863 | 1,046 | 558 | 126 | 267 | 0 | 0 | 68 | 0 | 23 |
| Sanghar | 2,810 | 1,907 | 242 | 553 | 126 | 102 | 27 | 5 | 741 | 0 | 173 |
| Shaheed Benazirabad | 2,260 | 1,929 | 32 | 382 | 98 | 239 | 0 | 1 | 169 | 0 | 0 |
| Shikarpur | 1,219 | 1,332 | 0 | 113 | 101 | 2 | 0 | 2 | 199 | 0 | 0 |
| Sujawal | 96 | 148 | 0 | 21 | 3 | 5 | 0 | 0 | 0 | 0 | 0 |
| Sukkur | 1,824 | 2,591 | 1,924 | 312 | 248 | 20 | 0 | 7 | 414 | 0 | 0 |
| Tando Allahyar | 2,127 | 998 | 748 | 202 | 123 | 20 | 0 | 0 | 131 | 0 | 29 |
| Tando Muhammad Khan | 583 | 957 | 7 | 85 | 66 | 6 | 0 | 0 | 17 | 0 | 37 |
| Tharparkar | 1,156 | 1,530 | 1,095 | 359 | 85 | 42 | 33 | 0 | 41 | 33 | 7 |
| Thatta | 1,278 | 2,753 | 1,090 | 259 | 105 | 28 | 24 | 1 | 97 | 0 | 58 |
| Umerkot | 1,351 | 3,286 | 0 | 262 | 50 | 56 | 18 | 0 | 147 | 0 | 0 |
| Total | 43,769 | 58,066 | 12,335 | 8,266 | 2,866 | 1,858 | 486 | 45 | 4,098 | 79 | 561 |

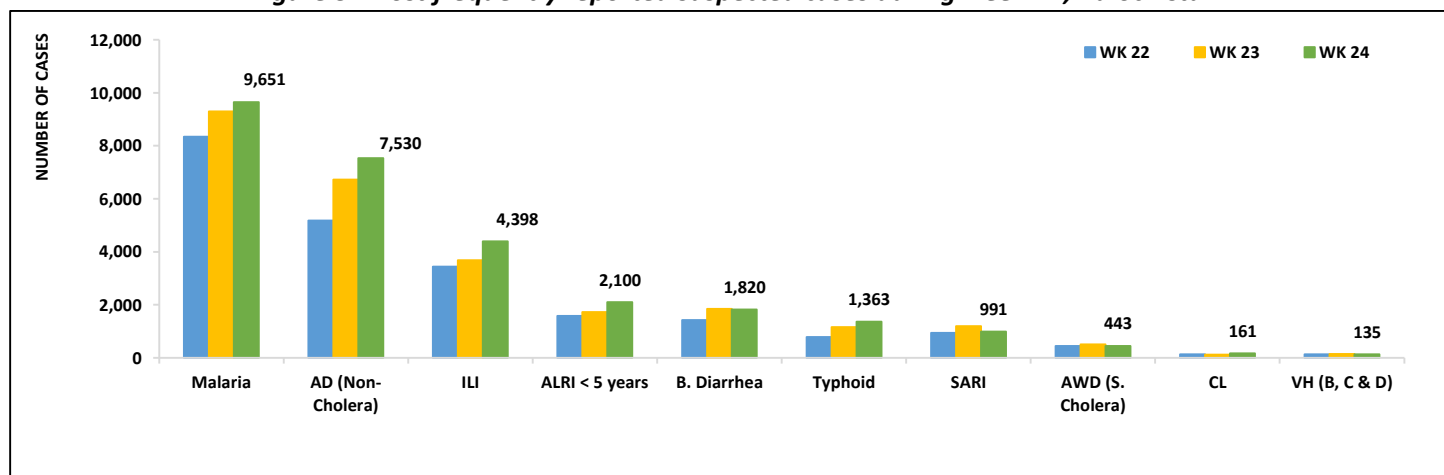**Figure 2: Most frequently reported suspected cases during week 24, Sindh**

# Balochistan
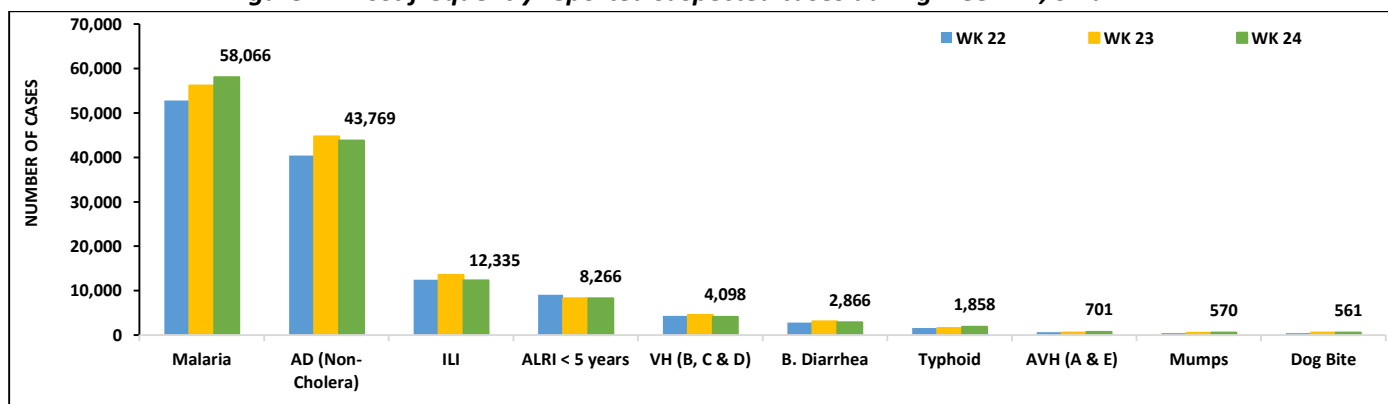
- Malaria, AD (Non-Cholera), ILI, ALRI <5 years, B. Diarrhea, Typhoid, SARI, AWD (S. Cholera), CL and VH (B &C) were the most frequently reported diseases.
- Cases of ILI, AD and Malaria showed an incline trend this week.
- Cutaneous Leishmaniasis cases are reported mostly from Sibi and Mastung. Field verification along with categorization of cases as new and old is required for appropriate response..

**Table3: District wise distribution of most frequently reported suspected cases during week 24, Balochistan**

| Districts | ILI | Malaria | AD (Non-Cholera) | ALRI < 5 years | SARI | B. Diarrhea | Typhoid | CL | Dog Bite | AWD (S. Cholera) |
|---|---|---|---|---|---|---|---|---|---|---|
| Awaran | 11 | 179 | 16 | 17 | 4 | 20 | 14 | 6 | 0 | 11 |
| Chagai | 261 | 49 | 155 | 0 | 0 | 54 | 47 | 0 | 0 | 15 |
| Chaman | 8 | 2 | 15 | 1 | 1 | 2 | 0 | 2 | 0 | 7 |
| Duki | 58 | 123 | 205 | 12 | 65 | 105 | 35 | 9 | 0 | 56 |
| Harnai | 5 | 105 | 393 | 445 | 0 | 119 | 6 | 0 | 1 | 18 |
| Jaffarabad | 162 | 2,656 | 1,378 | 158 | 112 | 185 | 526 | 11 | 30 | 0 |
| Jhal Magsi | 0 | 791 | 367 | 100 | 5 | 5 | 26 | 3 | 1 | 30 |
| Kachhi (Bolan) | 25 | 149 | 174 | 15 | 1 | 28 | 65 | 0 | 0 | 0 |
| Kalat | 27 | 22 | 25 | 10 | 0 | 9 | 13 | 1 | 0 | 0 |
| Kech (Turbat) | 764 | 557 | 392 | 79 | 4 | 77 | 2 | 0 | 0 | 0 |
| Kharan | 190 | 147 | 134 | 0 | 0 | 64 | 4 | 0 | 0 | 3 |
| Khuzdar | 194 | 171 | 120 | 0 | 25 | 37 | 12 | 1 | 0 | 1 |
| Killa Abdullah | 25 | 0 | 15 | 0 | 19 | 1 | 1 | 8 | 0 | 0 |
| Killa Saifullah | 5 | 302 | 307 | 136 | 17 | 116 | 43 | 10 | 0 | 19 |
| Kohlu | 140 | 139 | 77 | 24 | 37 | 77 | 28 | 3 | 0 | 4 |
| Lasbella | 135 | 893 | 587 | 446 | 335 | 93 | 29 | 3 | 24 | 1 |
| Loralai | 308 | 117 | 296 | 102 | 128 | 88 | 59 | 0 | 0 | 11 |
| Mastung | 197 | 172 | 587 | 68 | 63 | 91 | 81 | 23 | 31 | 65 |
| Musa Khail | 44 | 212 | 69 | 9 | 8 | 25 | 30 | 1 | 1 | 20 |
| Naseerabad | 0 | 690 | 183 | 0 | 0 | 12 | 54 | 0 | 1 | 5 |
| Nushki | 0 | 112 | 244 | 0 | 0 | 89 | 0 | 0 | 0 | 28 |
| Pishin | 155 | 15 | 207 | 30 | 2 | 113 | 18 | 16 | 4 | 0 |
| Quetta | 907 | 33 | 470 | 50 | 13 | 100 | 64 | 8 | 0 | 55 |
| Sherani | 40 | 17 | 62 | 3 | 18 | 19 | 5 | 22 | 1 | 14 |
| Sibi | 133 | 455 | 183 | 18 | 24 | 36 | 70 | 31 | 14 | 26 |
| Sohbat pur | 15 | 1,159 | 310 | 62 | 14 | 60 | 66 | 0 | 0 | 0 |
| SURAB | 0 | 6 | 10 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |

**Figure 3: Most frequently reported suspected cases during week 24, Balochistan**

- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, SARI, ALRI<5 Years, B. Diarrhea, Typhoid, CL, AVH (A&E) and Measles cases.
- AD and ILI showed downward trend in cases this week whereas Malaria remains the same.
- Cases of Typhoid were mostly reported from Mansehra, Peshawar and Swat. An early intervention through field investigation is required to limit the spread of disease.

**Table 4: District wise distribution of most frequently reported suspected cases during week 24, KP**

| Diseases | AD (Non-Cholera) | Malaria | ILI | SARI | ALRI < 5 years | B. Diarrhea | Typhoid | Dog Bite | AWD (S. Cholera) | AVH (A & E) |
|---|---|---|---|---|---|---|---|---|---|---|
| Abbottabad | 719 | 3 | 7 | 11 | 3 | 1 | 13 | 2 | 0 | 0 |
| Bannu | 633 | 883 | 81 | 0 | 1 | 10 | 44 | 0 | 0 | 0 |
| Buner | 639 | 609 | 0 | 0 | 1 | 22 | 20 | 5 | 0 | 0 |
| Charsadda | 1,576 | 50 | 150 | 22 | 5 | 0 | 0 | 0 | 0 | 0 |
| Chitral Lower | 602 | 6 | 138 | 813 | 0 | 0 | 6 | 18 | 0 | 2 |
| Chitral Upper | 139 | 2 | 2 | 228 | 0 | 0 | 15 | 0 | 0 | 1 |
| D.I. Khan | 1,216 | 423 | 24 | 50 | 13 | 21 | 8 | 40 | 0 | 0 |
| Dir Lower | 2,026 | 770 | 182 | 293 | 247 | 172 | 99 | 12 | 0 | 122 |
| Dir Upper | 737 | 8 | 77 | 0 | 101 | 45 | 30 | 0 | 0 | 13 |
| Hangu | 484 | 431 | 626 | 172 | 10 | 69 | 27 | 13 | 0 | 9 |
| Haripur | 1,642 | 23 | 438 | 7 | 144 | 3 | 39 | 3 | 0 | 46 |
| Karak | 493 | 113 | 81 | 28 | 8 | 1 | 5 | 28 | 0 | 0 |
| Khyber | 15 | 34 | 70 | 0 | 0 | 8 | 7 | 0 | 0 | 0 |
| Kohat | 89 | 29 | 39 | 3 | 4 | 0 | 2 | 4 | 0 | 0 |
| Kohistan Lower | 108 | 6 | 0 | 201 | 3 | 39 | 0 | 2 | 3 | 0 |
| Kohistan Upper | 558 | 1 | 86 | 19 | 1 | 28 | 32 | 0 | 4 | 0 |
| Kolai Palas | 97 | 6 | 0 | 0 | 6 | 15 | 1 | 0 | 5 | 0 |
| L & C Kurram | 8 | 25 | 37 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Lakki Marwat | 746 | 1,330 | 2 | 0 | 16 | 35 | 24 | 0 | 0 | 0 |
| Malakand | 1,708 | 71 | 23 | 117 | 91 | 118 | 27 | 2 | 0 | 29 |
| Mansehra | 890 | 0 | 710 | 44 | 41 | 24 | 173 | 1 | 5 | 3 |
| Mardan | 1,740 | 39 | 772 | 90 | 267 | 139 | 0 | 1 | 0 | 5 |
| Nowshera | 1,966 | 76 | 60 | 1 | 0 | 45 | 26 | 0 | 0 | 15 |
| Peshawar | 3,115 | 52 | 1,064 | 10 | 86 | 214 | 117 | 1 | 2 | 12 |
| Shangla | 319 | 316 | 0 | 0 | 4 | 2 | 30 | 10 | 4 | 1 |
| Swabi | 2,038 | 22 | 1,159 | 112 | 239 | 40 | 46 | 0 | 0 | 55 |
| Swat | 3,912 | 75 | 255 | 0 | 121 | 89 | 182 | 5 | 0 | 35 |
| Tank | 327 | 137 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 |
| Tor Ghar | 100 | 157 | 5 | 27 | 2 | 29 | 28 | 7 | 0 | 0 |
| Total | 28,642 | 5,697 | 6,088 | 2,248 | 1,414 | 1,169 | 1,007 | 156 | 23 | 348 |

**Figure 4: Most frequently reported suspected cases during week 24, KP**

# ICT, AJK & GB
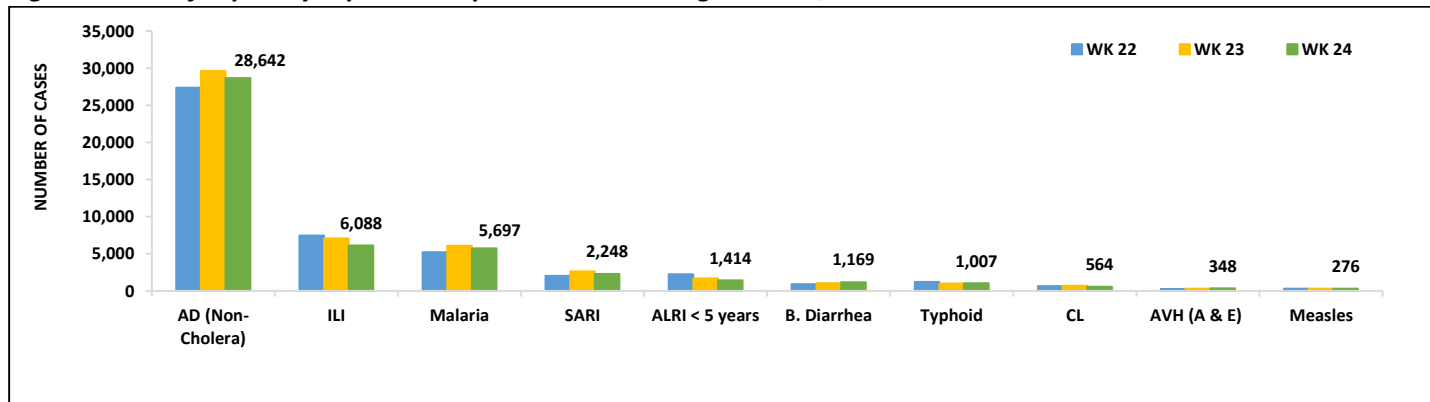
- **ICT**: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera). Sixteen cases of Chickenpox reported this week which need field investigation to identify the source cases showed an upward trend in cases this week.
- **AJK:** AD (Non-Cholera) cases were maximum followed by ILI, ALRI <5 years, SARI, Malaria, Mumps, B. Diarrhea, AWD (S. Cholera), Typhoid and AVH (A&E). AD (Non-Cholera) cases continued to rise this week.
- **GB:** AD (Non. Cholera) cases were maximum followed by ALRI<5 years and SARI. Ad (Non-Cholera) cases showed upward trend in cases this week.

### Figure 5: Most frequently reported suspected cases during week 24, ICT
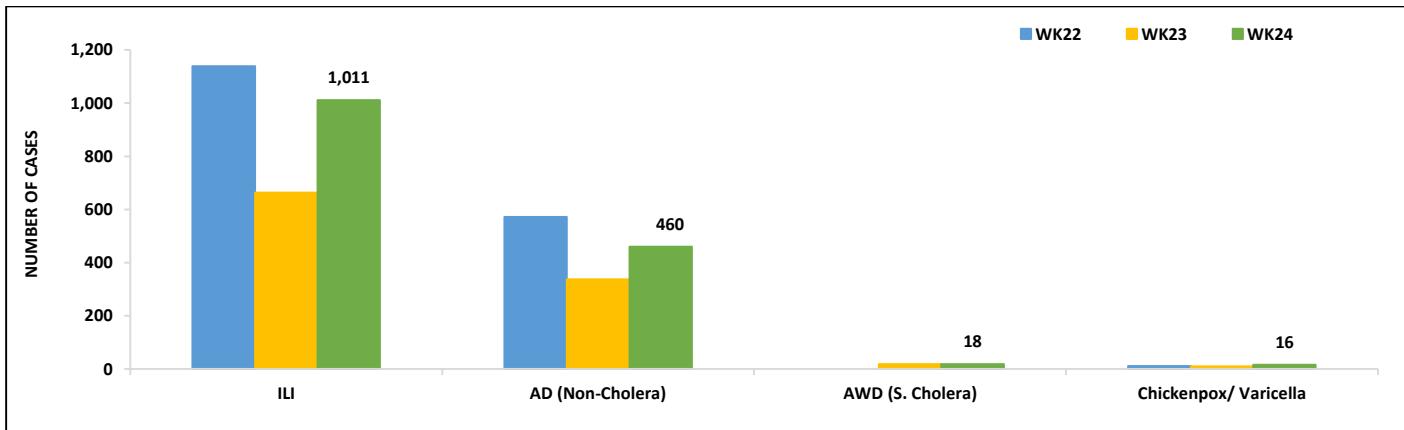


### Figure 6: Week wise reported suspected cases of ILI, ICT
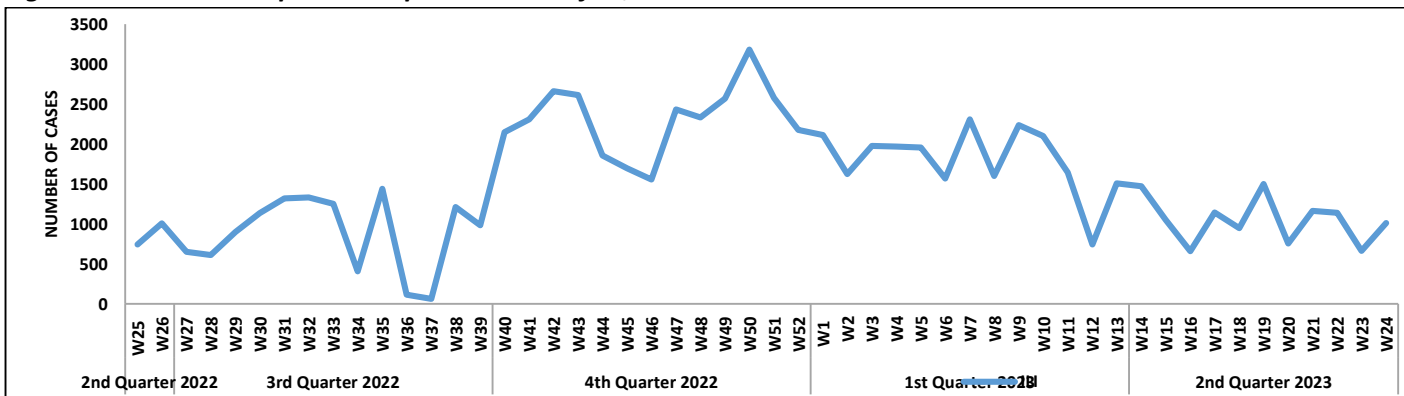


### Figure 7: Most frequently reported suspected cases during week 24, AJK
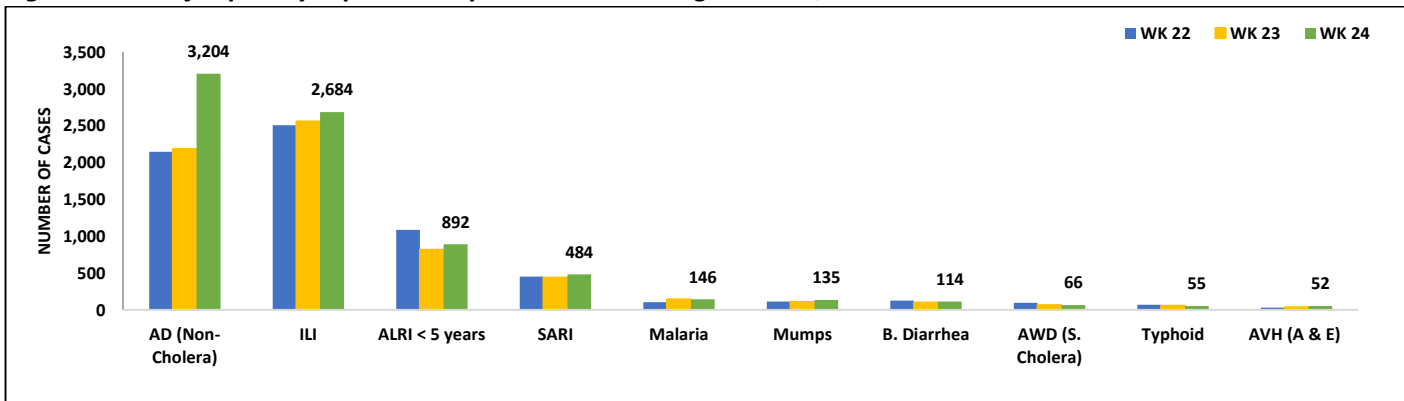
**Figure 8: Week wise reported suspected cases of AD (Non-Cholera) and ALRI <5 years, AJK**
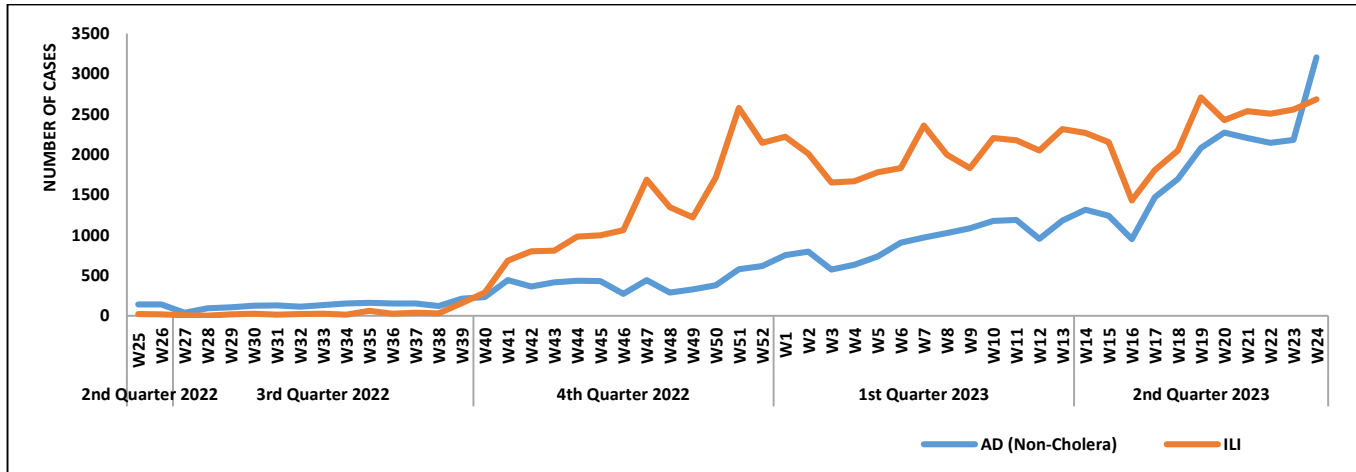


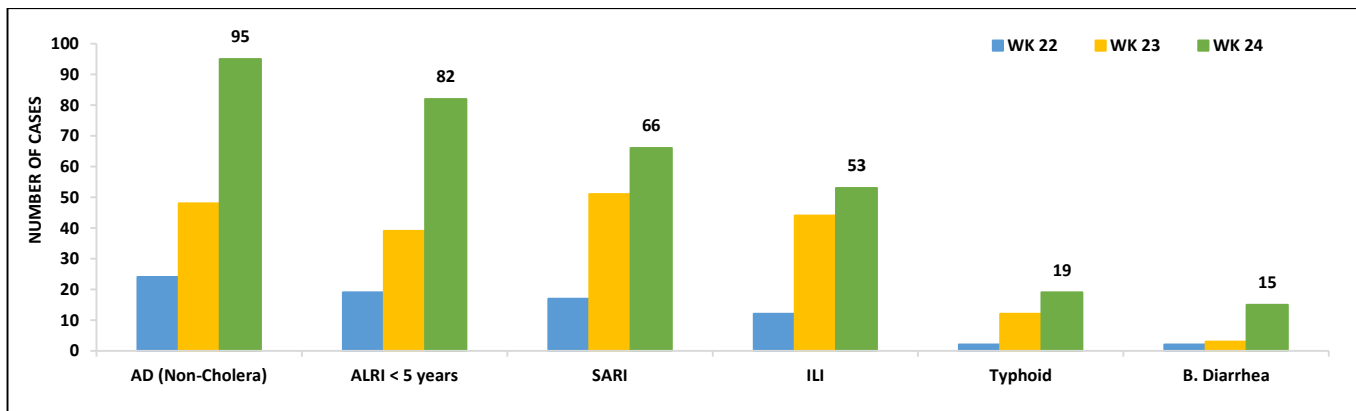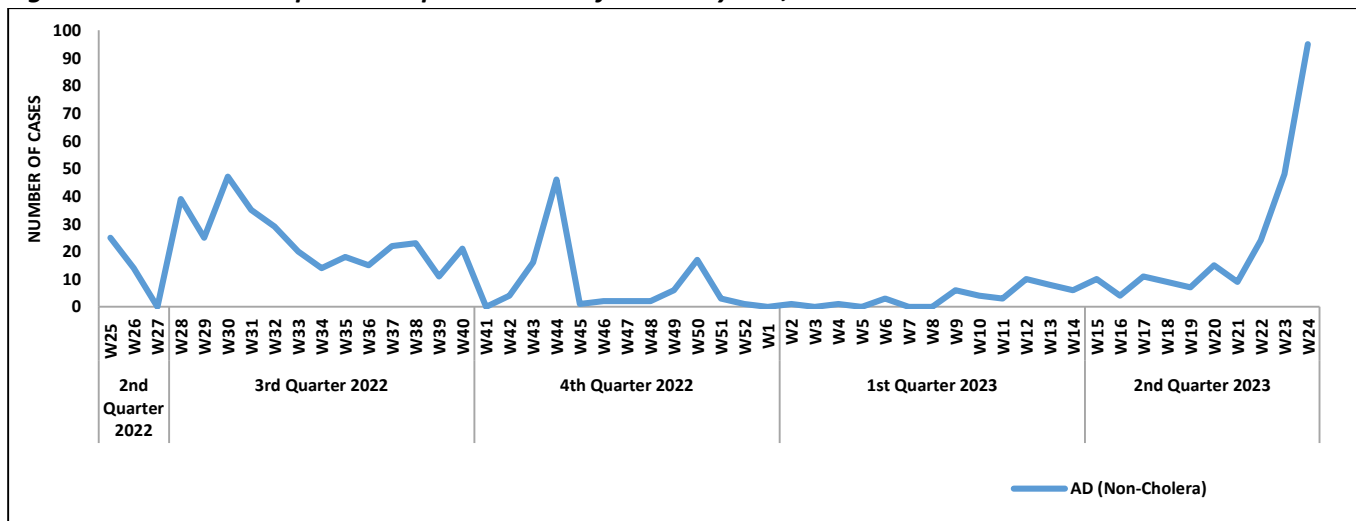**Figure 9: Most frequent cases reported during WK 24, GB**



**Figure 10: Week wise reported suspected cases of ALRI < 5 years, GB**

## Laboratory Confirmed Cases

**Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi week 24**

| Diseases | Sindh | KP | Balochistan | Punjab | Gilgit |
|---|---|---|---|---|---|
| Acute Watery Diarrhoea (S. Cholera) | 3 | - | - | - | - |
| Acute diarrhea(non-cholera) | 2 | - | - | - | - |
| Malaria | 216 | - | - | - | 1 |
| Dengue | 18 | - | - | - | - |
| Acute Viral Hepatitis(A) | 1 | 1 | - | - | - |
| Acute Viral Hepatitis(B) | 95 | - | - | - | 1 |
| Acute Viral Hepatitis(C) | 142 | - | 4 | - | - |
| Acute Viral Hepatitis(E) | 14 | - | - | - | - |
| Covid-19 | 0 | - | 0 | 0 | - |

# IDSR Reports Compliance

**Table 6: IDSR reporting districts Week 24**

| Provinces/Regions | Districts | Total Number of Reporting Sites | Number of Agreed Reporting Sites | Number of Reported Sites for current week | Compliance Rate (%) |
|---|---|---|---|---|---|
| Khyber Pakhtunkhwa | Abbottabad | 110 | 110 | 102 | 93% |
| | Bannu | 92 | 92 | 65 | 71% |
| | Buner | 34 | 34 | 29 | 85% |
| | Charsadda | 61 | 61 | 50 | 82% |
| | Chitral Upper | 33 | 33 | 10 | 30% |
| | Chitral Lower | 35 | 35 | 31 | 89% |
| | D.I. Khan | 89 | 89 | 66 | 74% |
| | Dir Lower | 75 | 75 | 72 | 96% |
| | Dir Upper | 55 | 55 | 44 | 80% |
| | Hangu | 22 | 22 | 22 | 100% |
| | Haripur | 69 | 69 | 60 | 87% |
| | Karak | 34 | 34 | 34 | 100% |
| | Khyber | 40 | 40 | 5 | 13% |
| | Kohat | 59 | 59 | 58 | 98% |
| | Kohistan Lower | 11 | 11 | 11 | 100% |
| | Kohistan Upper | 20 | 20 | 20 | 100% |
| | Kolai Palas | 10 | 10 | 10 | 100% |
| | Lakki Marwat | 49 | 49 | 49 | 100% |
| | Malakand | 42 | 42 | 34 | 81% |
| | Mansehra | 133 | 133 | 69 | 52% |
| | Mardan | 84 | 84 | 57 | 68% |
| | Nowshera | 52 | 52 | 51 | 98% |
| | Peshawar | 101 | 101 | 89 | 88% |
| | Shangla | 36 | 36 | 6 | 17% |
| | Swabi | 60 | 60 | 43 | 72% |
| | Swat | 77 | 77 | 67 | 87% |
| | Tank | 34 | 34 | 32 | 94% |
| | Torghar | 10 | 10 | 10 | 100% |
| Azad Jammu Kashmir | Mirpur | 37 | 37 | 34 | 100% |
| | Bhimber | 20 | 20 | 19 | 95% |
| | Kotli | 60 | 60 | 35 | 58% |
| | Muzaffarabad | 43 | 43 | 43 | 100% |
| | Poonch | 46 | 46 | 46 | 100% |
| | Haveli | 43 | 43 | 32 | 74% |
| | Bagh | 41 | 41 | 36 | 88% |
| | Neelum | 33 | 33 | 33 | 100% |
| | Jhelum Vellay | 49 | 49 | 27 | 55% |
| | Sudhnooti | 68 | 68 | 26 | 38% |

| | | | | | |
|---|---|---|---|---|---|
| **Islamabad Capital Territory** | ICT | 18 | 18 | 12 | 67% |
| | CDA | 9 | 9 | 7 | 78% |
| **Balochistan** | Gwadar | 24 | 24 | 2 | 8% |
| | Kech | 78 | 44 | 31 | 70% |
| | Khuzdar | 136 | 20 | 17 | 85% |
| | Lasbella | 85 | 85 | 82 | 96% |
| | Pishin | 118 | 23 | 9 | 39% |
| | Quetta | 77 | 22 | 16 | 73% |
| | Sibi | 42 | 42 | 21 | 50% |
| | Zhob | 37 | 37 | 25 | 68% |
| | Jaffarabad | 47 | 47 | 30 | 64% |
| | Naserabad | 45 | 45 | 37 | 82% |
| | kharan | 32 | 32 | 28 | 88% |
| | sherani | 32 | 32 | 15 | 47% |
| | kohlu | 75 | 75 | 20 | 27% |
| | Chagi | 65 | 65 | 20 | 31% |
| | kalat | 65 | 65 | 17 | 26% |
| | Musa khail | 68 | 68 | 21 | 31% |
| | Harnai | 36 | 36 | 17 | 47% |
| | Kachhi (Bolan) | 35 | 35 | 11 | 31% |
| | Jhal Magsi | 39 | 39 | 24 | 62% |
| | Sohbat pur | 26 | 26 | 24 | 92% |
| | Surab | 33 | 33 | 5 | 15% |
| | Mastung | 45 | 45 | 27 | 60% |
| | Loralai | 25 | 25 | 24 | 96% |
| | Killa Saifullah | 31 | 31 | 24 | 77% |
| | Ziarat | 42 | 42 | 15 | 36% |
| | Duki | 31 | 31 | 29 | 94% |
| | Nushki | 32 | 32 | 28 | 88% |
| | Dera Bugti | 45 | 45 | 13 | 29% |
| **Gilgit Baltistan** | Hunza | 31 | 31 | 29 | 94% |
| | Ghizer | 62 | 62 | 20 | 32% |
| **Sindh** | Hyderabad | 63 | 63 | 25 | 40% |
| | Ghotki | 65 | 65 | 64 | 98% |
| | Umerkot | 98 | 43 | 42 | 98% |
| | Naushahro Feroze | 120 | 52 | 52 | 100% |
| | Tharparkar | 292 | 100 | 93 | 93% |
| | Shikarpur | 64 | 64 | 60 | 94% |
| | Thatta | 53 | 53 | 52 | 98% |
| | Larkana | 67 | 67 | 67 | 100% |
| | Kamber Shadadkot | 71 | 71 | 71 | 100% |
| | Karachi-East | 14 | 14 | 11 | 79% |
| | Karachi-West | 20 | 20 | 20 | 100% |
| | Karachi-Malir | 37 | 37 | 16 | 43% |
| | Karachi-Kemari | 17 | 17 | 7 | 41% |
| | Karachi-Central | 12 | 12 | 9 | 75% |
| | Karachi-Korangi | 17 | 17 | 8 | 47% |
| | Karachi-South | 4 | 4 | 2 | 50% |
| | Sujawal | 31 | 31 | 6 | 19% |

| | District | | | | |
|---|---|---|---|---|---|
| | Mirpur Khas | 124 | 124 | 104 | 84% |
| | Badin | 144 | 144 | 105 | 73% |
| | Sukkur | 65 | 65 | 64 | 98% |
| | Dadu | 90 | 90 | 90 | 100% |
| | Sanghar | 101 | 101 | 86 | 85% |
| | Jacobabad | 54 | 54 | 41 | 76% |
| | Khairpur | 203 | 203 | 160 | 79% |
| | kashmore | 59 | 59 | 59 | 100% |
| | Matiari | 42 | 42 | 39 | 93% |
| | Jamshoro | 70 | 70 | 8 | 11% |
| | Tando Allahyar | 54 | 54 | 48 | 89% |
| | Tando Muhammad Khan | 41 | 41 | 10 | 24% |
| | Shaheed Benazirabad | 124 | 124 | 124 | 100% |

## Public Health Bulletin (PHB) Pakistan

### INSTRUCTIONS FOR AUTHORS
Criteria for authorship credit

### INCLUSION CRITERIA
Authors can meet all or just one of the listed criteria:

a. Significant contribution in conception or design of the study or report, collection, analysis and interpretation of data

b. Drafted and technically revised the report or manuscript

c. Critically reviewed the final version for publication

d. Agreed to be accountable for accuracy and integrity of the study conducted

### EXCLUSION CRITERIA
a. Participation solely in the acquisition of funding, the collection of data, general supervision of the research group, position in an organization and by attendance at a meeting will not be enough for claiming authorship.

b. Persons or groups that reviewed a submission for a clearance process or who suggested revisions or limited changes to a submission will not be listed as authors.

### PLACEMENT OF LIST OF AUTHORS AND ORDER
a. The list of authors follows the title. First and last names and middle initials (optional) should be used. The affiliation with the organization will be footnoted.

b. The PHB Pakistan recognizes that scientific work is a collaboration, and collaborators have a responsibility to define, accept, and fulfill their roles. The first author will have responsibility for the integrity of the work from inception to publication. First authors also are responsible for providing leadership in determining order of the other coauthors, establishing writing assignments, providing direction for reviews and revisions, and compiling drafts. The first author should ensure an open forum for coauthors to share their concerns and suggestions and should ensure that all ethical considerations (e.g., Institutional Review Board review, disclosure of conflicts of interest) have been addressed.

### TYPES OF ARTICLES
The following types of articles are published in the PHB, Pakistan:

1.  Surveillance Summary Reports
2.  Outbreak investigation reports
3.  Notes from the field

In this issue of bulletin, we will discuss Outbreak investigation reports:

### Outbreak investigation reports
An outbreak report is a document summarizing all the steps and main findings of the outbreak investigation with providing timely feedback and recommendations to concerned authorities. These reports should follow chronologic narration like telling a story with keeping in mind the following points:

*a. Introduction*: This should include the event establishing the existence of the outbreak or underlying public health problem addressing how was the outbreak reported, which steps were taken to confirm it, what was known to date, reason for undertaking investigation, when and by whom the investigation was conducted, objectives of the investigation and information that will help readers understand the context like background, population demographics, description of the area/site/facility, healthcare system and sectors involved.

*b. Methods*: The methods section provides the elements to understand what was done to investigate the outbreak. Methods used in each component of the outbreak investigation should be specified including study design, study population, study setting, study duration, case definition, definitions of groups compared and exposures of interest, source and mode of data collection, sampling technique, sample size, methods used to analyze data, statistical tests used, collection & analysis of clinical and environmental specimens, site visit and methods of risk assessment. Approval from Institutional Review Board and informed consent from participants of the study should be considered and documented.

*c. Results*: The results section should be consistent with the methods and remain factual including findings that support the conclusion. Findings should be expressed quantitatively and include descriptive and analytical results. Descriptive part comprises of count of cases, clinical characteristics, treatment, outcome and distribution of disease (time, place and person). Laboratory investigation and environmental sampling results

should also be mentioned here. This section should include tables and figures with brief descriptions of the most important patterns or features avoiding data repetition.

*d. Discussion:* The discussion section links your overall results back to your objectives. This section should provide a brief summary of key findings, clear and logical interpretation of results, limitations of the study and biases that may have led to the observed results.

*e. Conclusions* & Recommendations: The conclusion section explains how results confirmed or disapproved hypothesis. The recommendations section should be short, concise, specific and targeted (who should do what, what can be done with the available resources, acceptable). This section should specify what should be done to control the current outbreak (e.g. vaccination, water chlorination etc.), to prevent future outbreaks (e.g. awareness sessions, introducing specific control measures, etc.) and to improve management of future outbreaks (e.g. decision-making process, communications, involvement of other relevant stakeholders and subject matter experts etc.).

*f. Public health impact:* From the experience of the investigated outbreak, some points should be highlighted to improve future investigations. A summary of problems encountered and suggestions for improvement could be useful for participating agencies and colleagues if they will use similar approaches, methods or tools in the future. This segment explains the outcome of the outbreak investigation report like implementation of preventive measures, establishment or improvement of surveillance system, timely reporting of cases or outbreaks, increased vaccination coverage, relevant policy formulation, improved emergency preparedness and community awareness.

*g. Summary box:* A summary box tells the reader about the importance of the topic, significant findings and the public health impact. Authors should answer the following in one or two sentences for each:

1 What is already known on this topic?
2 What is added by this report?
3 What are the implications for public health practice?

These answers contain the key public health message as well as the justification for the publication. Total words limit should not be more than 75-100 words.

## Leishmaniasis investigation in District Karak May 2023

*Reported by: District Surveillance Coordinator, Karak, KPK,*

### Introduction

Leishmaniasis is a vector-borne disease caused by the protozoan parasite Leishmania. It is transmitted by the bite of infected sandflies. The disease can manifest in a variety of forms, including cutaneous leishmaniasis (CL), visceral leishmaniasis (VL), and mucocutaneous leishmaniasis (MCL).

### Background

A number of Leishmania cases were reported from UC Chokara village Zarkhan kalla in District Karak, Pakistan. The cases gradually increased, despite field activities to prevent further spread. The provincial health department was requested by the district Health officials to investigate the outbreak.

Methods

A descriptive epidemiological approach was used to investigate the outbreak. The objectives of the investigation were to:

1. Determine the magnitude of the outbreak
2. Control the further spread of Leishmaniasis in the district
3. Recommend actions to control the disease

### Findings

A house-to-house survey was conducted in the localities having laboratory-confirmed cases. A total of 100 households were surveyed, and 15 cases of CL were identified. The median age of the cases was 25 years, and 70% of the cases were male. The majority of the cases (80%) had a history of outdoor activities at night.

The sanitation practices in the affected area were poor. Many households had open water reservoirs, which are potential breeding grounds for sandflies. The use of personal protective measures against sandflies was also low.

### Recommendations

The following recommendations were made to control the outbreak of Leishmaniasis in District Karak:

- Improve coordination between line departments, especially the health department, administration, and education departments.
- Improve surveillance by active visits and supportive supervision.
- Provide financial resources for mobility of staff to ensure awareness and surveillance.

- Train the staff, especially medical officers, on diagnosis and management of Leishmaniasis cases.
- Make preventive measures, such as bed nets and mosquito repellents, available to the affected area.
- Devise a sustainable budget for outbreak response by involving the concerned departments.
- Conduct vector surveillance for detection of the agent.
- Actively monitor contaminated water reservoirs.
- Build capacity of the staff by trainings.
- Organize awareness sessions at schools, hujras, and mosques.
- Train clinicians on Leishmaniasis management.
- Conduct a case control study to associate and investigate the potential risk factors.

## Conclusion

The outbreak of Leishmaniasis in District Karak is a serious public health problem. The recommendations made in this report will help to control the outbreak and prevent further spread of the disease.

| WHAT IS KNOWN | WHAT IS ADDED | HEALTH IMPLICATIONS |
|---|---|---|
| • Leishmaniasis is a neglected tropical disease that affects millions of people worldwide. | • Leishmaniasis outbreak investigation in District Karak, Pakistan, found poor sanitation practices and low use of personal protective measures against sandflies.. | • Leishmaniasis is a serious but preventable and treatable disease. Early diagnosis and treatment can reduce the risk of serious complications |

## A note from the Field working….

*Punjab Rawalpindi*

*Punjab Government Launches Measles Outbreak Response in Ten High-Burden Districts*

*Ch. Muhammad Hussain DSV, Rawalpindi*

The Punjab government has launched a measles outbreak response in ten districts of the province where the burden of disease is high. The target population is 1.4 million children aged 6-59 months. The response includes vaccination, door-to-door social mobilization, and awareness-raising activities.

As of June 22, 2023, 899,807 children have been inoculated with measles vaccine. The five-day drive will end on June 24. In District Rawalpindi, more than 65% of the target population has been covered, with two days of the drive remaining.

The measles outbreak response is a critical step in the Punjab government's efforts to eliminate measles from the province. Measles is a highly contagious disease that can be fatal, especially in young children. The government is committed to ensuring that all children in Punjab are protected from this serious disease.

*Dr Abdul Jabar ADHS EPI Punjab is supervising Measles outreach response in District Rawalpindi, said, "The measles outbreak response is part of the Punjab government's efforts to eliminate measles from the province. Measles is a highly contagious disease that can be fatal, especially in young children. The government is committed to ensuring that all children in Punjab are protected from measles"*

## A note from the Field working….

*Punjab Rawalpindi*

*A Descriptive Epidemiology of Measles in Infants Under 9 Months of Age in Rawalpindi, Pakistan*

*Muhammad Ali Mirza, DSC, Rawalpindi*

*Introduction:* Measles is a highly contagious viral infection that can cause severe complications, including pneumonia, diarrhea, encephalitis, and death. Measles is endemic to Pakistan, and periodic epidemics occur every 2-3 years. Immunization is one of the most successful medical interventions to prevent diseases. However, decrease in herd immunity due to lack of vaccination coverage has led to periodic epidemics, and an associated rise in morbidity in children younger than 9 months.

*Methods:* This study used a descriptive epidemiology approach to analyze measles line list data from District Disease Surveillance and Response Unit, Rawalpindi in 2022. The data was analyzed and presented in the form of frequencies and percentages.

*Results:* A total of 1,718 cases of measles aged 1month-12years were reported in Rawalpindi, Pakistan in 2022. Of these, 582 (34%) were in infants under 9 months of age. The majority of the cases were reported from Holy Family Hospital (46%), followed by Benazir Bhutto Hospital (22%) and tehsil Headquarter Hospitals (12%). Private sector health care facilities accounted for 20% of the cases.

The mean age of the infants was 6.62 months, with a median age of 7 months. The age distribution was as follows:

- 0-2 months: 3% (n=15)
- 3-5 months: 28% (n=166)
- 6-8 months: 69% (n=401)

The most common complications were pneumonia (39.6%), gastroenteritis (23.5%), and otitis media (18.7%). Eight infants died, seven of whom had pneumonia and one of whom had measles encephalitis.

*Discussions:* The high number of infants under 9 months of age affected by measles in Rawalpindi is a serious public health concern. The immunization schedule for measles should be reviewed to ensure that all infants are vaccinated at an early age.

## A note from the Field working….

*Punjab Rawalpindi*

*Death Anxiety, Social Support and Medication Adherence in People Living with HIV/AIDS in South Punjab, Pakistan*

*Sadia Rao, AIDS Control Program, BBH, Rawalpindi*

*Death anxiety is the fear of one's own death. It is a common experience among people living with HIV/AIDS, as they are aware of their increased risk of mortality.*

*Social support is the emotional and practical support that people receive from their social network. It can come from family, friends, or other sources.*

*Medication adherence is the extent to which people take their medication as prescribed. It is important for people living with HIV/AIDS to adhere to their medication in order to control their viral load and prevent the development of AIDS.*

A study reported by Sadia Rao found that people with HIV/AIDS who had higher levels of death anxiety were more likely to adhere to their medication, especially if they had more social support from their significant other. This suggests that social support can help to mitigate the negative effects of death anxiety on medication adherence.

The study also found that uneducated HIV positive people had slightly higher social support and medication adherence as compared to HIV positive educated people. However, death anxiety was slightly more in uneducated HIV positive people as compared to HIV positive educated people.

These findings suggest that social support is an important factor in medication adherence for people living with HIV/AIDS, regardless of their educational status. However, death anxiety may be a greater challenge for uneducated people living with HIV/AIDS.

## Malaria: A Deadly Disease

Malaria is a serious and potentially deadly disease caused by a parasite that is transmitted through the bite of an infected mosquito. The parasite can live in the human body for several weeks, during which time it can cause a variety of symptoms, including fever, chills, headache, muscle aches, and fatigue. In severe cases, malaria can lead to death.

## Malaria in Pakistan

Malaria is a major public health problem in Pakistan. The disease is endemic in all provinces of the country, and it is estimated that there are over 2 million cases of malaria reported each year. The highest rates of malaria are found in the southern provinces of Sindh and Balochistan, where the climate is warm and humid and the mosquito vectors are abundant.

## How to Control Malaria

There are a number of things that can be done to control malaria, including:

- ✓ Preventing mosquito bites: This can be done by using insect repellent, wearing long sleeves and pants, and sleeping under a mosquito net.
- ✓ Early diagnosis and treatment: If you think you have malaria, it is important to see a doctor as soon as possible. Early diagnosis and treatment can help to prevent the disease from becoming severe.
- ✓ Using insecticide-treated nets (ITNs): ITNs are nets that have been treated with an insecticide that kills mosquitoes. ITNs are an effective way to prevent mosquito bites and reduce the spread of malaria.
- ✓ Indoor residual spraying (IRS): IRS is a method of spraying insecticides on the walls of houses to kill mosquitoes. IRS is an effective way to control mosquito populations and reduce the spread of malaria.

## Act Against Malaria

Malaria is a preventable and treatable disease. By acting against malaria, we can help to protect ourselves, our families, and our communities from this deadly disease.



File picture: Malaria endemic areas Pakistan

*Get tested for malaria if you have symptoms.*

*Take your medication as prescribed by your doctor.*

*Use insect repellent and sleep under a mosquito net.*

*Support efforts to distribute ITNs and conduct IRS.*

*Together, we can make a difference in the fight against malaria.*

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# WORLD VITILIGO DAY

## 25 June, 2023

*learning to live with vitiligo*

PAKISTAN

Vitiligo is a chronic skin condition that causes patches of skin to lose pigment or color. This happens when melanocytes – skin cells that make pigment – are attacked and destroyed, causing the skin to turn a milky-white color.

Vitiligo can affect people of all races and ethnicities, but it is more common in people with darker skin. The exact cause of vitiligo is unknown, but it is thought to be an autoimmune disorder.

There is no cure for vitiligo, but there are treatments that can help to slow the progression of the disease and improve the appearance of the affected skin.

Vitiligo can be a challenging condition to live with, but it is important to remember that it is not contagious and it does not pose any health risks. There are many resources available to help people with vitiligo cope with the condition and live a full and productive life.

If you or someone you know has vitiligo, there are a few things you can do to help:

- Educate yourself about the condition: The more you know about vitiligo, the better equipped you will be to cope with it.
- Seek support: There are many support groups and online forums for people with vitiligo. These groups can provide you with emotional support and practical advice.
- Be patient: Vitiligo is a chronic condition, so it is important to be patient with yourself and with the treatment process.

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