

Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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



Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin is your go-to resource for disease trends, outbreak alerts, and crucial public health information. By reading and sharing this bulletin, you can help increase awareness and promote preventive measures within your community.



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Preface

Overview

The Weekly Public Health Bulletin-Pakistan provides a summary of the most important public health events that occurred during week 37 of 2023. During this week, the most frequently reported cases were acute diarrhea (non-cholera), malaria, influenza-like illness (ILI), acute lower respiratory infection (ALRI) in children under 5 years old, bloody diarrhea, typhoid, viral hepatitis (B and C), severe acute respiratory infection (SARI), dog bites, and acute viral hepatitis (A and E).

IDSR Reports

Malaria cases were reported in increased numbers from all malaria-endemic districts. Field investigations are needed to verify these cases, with a focus on vector surveillance.

Ongoing Events

Vaccine-preventable diseases are on the rise and have been reported from across the country. Field investigations are also needed to verify these cases.

Field Reports

The PHB team would like to express its sincere gratitude to all of the health workers who have contributed to the reporting of these cases. Their work is essential to protecting the health of the public. The team would also like to remind the public to stay vigilant and to seek medical attention immediately if they experience any symptoms of these diseases.

Working together, we can protect the health of our communities.

Sincerely,
The Chief Editor

- During week 37, most frequent reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, B. Diarrhea, Typhoid, VH (B&C), SARI, dog bite and AVH (A&E).
- Malaria cases reported in increased numbers from all districts of malaria. Field investigations for verification with focus on vector surveillance is required.
- Vaccine preventable Diseases are on rise and reported from across the country. Field investigation required to verify cases.

IDSR compliance attributes

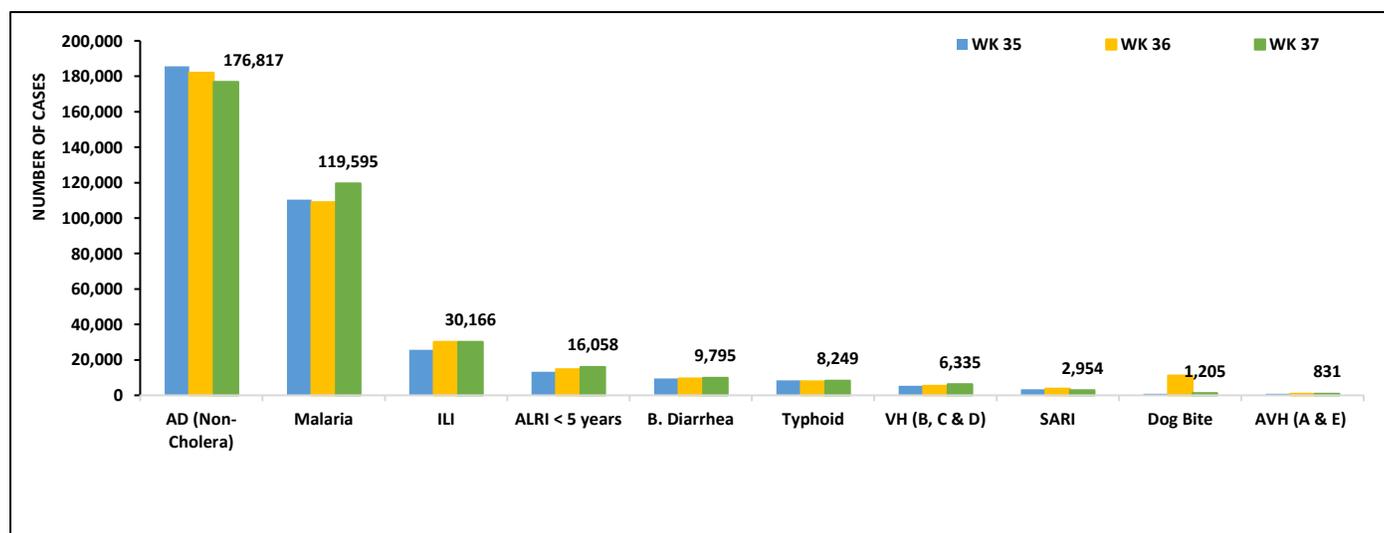
- The national compliance rate for IDSR reporting in 113 implemented districts is 77%
- AJK, ICT and Sindh are the top reporting region with a compliance rate of 96% and 93% followed by Khyber Pakhtunkhwa with 735%
- The lowest compliance rate was observed in Gilgit Baltistan.

| Region | Expected Reports | Received Reports | Compliance (%) |
|------------------------------------|------------------|------------------|----------------|
| Khyber Pakhtunkhwa | 1693 | 1275 | 75 |
| Azad Jammu Kashmir | 375 | 359 | 96 |
| Islamabad Capital Territory | 27 | 25 | 93 |
| Balochistan | 1119 | 723 | 65 |
| Gilgit Baltistan | 348 | 94 | 27 |
| Sindh | 1834 | 1697 | 93 |
| National | 5396 | 4173 | 77 |

Table 1: Province/Area wise distribution of most frequently reported cases during week 37, Pakistan.

| Diseases | AJK | Balochistan | GB | ICT | KP | Punjab | Sindh | Total |
|-----------------------|-------|-------------|-----|-----|--------|--------|--------|---------|
| AD (Non-Cholera) | 2,085 | 7,559 | 331 | 140 | 26,023 | 91,180 | 49,499 | 176,817 |
| Malaria | 125 | 10,201 | 4 | 5 | 6,794 | 4,309 | 98,157 | 119,595 |
| ILI | 2,779 | 5,646 | 96 | 421 | 4,372 | 164 | 16,688 | 30,166 |
| ALRI < 5 years | 1017 | 1631 | 160 | 0 | 1,178 | 3 | 12069 | 16,058 |
| B. Diarrhea | 152 | 1840 | 44 | 3 | 1,174 | 2,633 | 3949 | 9,795 |
| Typhoid | 98 | 901 | 41 | 0 | 1267 | 4,274 | 1,668 | 8,249 |
| VH (B, C & D) | 9 | 98 | 0 | 0 | 251 | NR | 5977 | 6,335 |
| SARI | 366 | 729 | 145 | 0 | 1186 | NR | 528 | 2,954 |
| Dog Bite | 69 | 132 | 0 | 0 | 151 | NR | 853 | 1,205 |
| AVH (A & E) | 58 | 21 | 3 | 3 | 240 | NR | 506 | 831 |
| Mumps | 100 | 78 | 18 | 0 | 108 | NR | 290 | 594 |
| AWD (S. Cholera) | 123 | 234 | 57 | 0 | 20 | NR | 93 | 527 |
| CL | 0 | 135 | 0 | 0 | 288 | 15 | 2 | 440 |
| Measles | 7 | 56 | 4 | 1 | 203 | NR | 58 | 329 |
| Chickenpox/ Varicella | 21 | 6 | 6 | 1 | 168 | 67 | 9 | 278 |
| Dengue | 6 | 3 | 0 | 0 | 176 | NR | 71 | 256 |
| Gonorrhea | 2 | 115 | 0 | 0 | 45 | NR | 28 | 190 |
| Pertussis | 7 | 95 | 1 | 0 | 35 | NR | 1 | 136 |
| Meningitis | 7 | 3 | 0 | 0 | 17 | NR | 115 | 142 |
| AFP | 1 | 6 | 0 | 0 | 16 | NR | 10 | 33 |
| HIV/AIDS | 0 | 1 | 0 | 0 | 10 | NR | 6 | 17 |
| Brucellosis | 0 | 0 | 0 | 0 | 1 | NR | 0 | 1 |
| VL | 4 | 1 | 0 | 0 | 3 | NR | 0 | 08 |
| Diphtheria (Probable) | 0 | 7 | 1 | 0 | 10 | NR | 0 | 18 |
| Anthrax | 0 | 0 | 0 | 0 | 0 | NR | 0 | 0 |
| NT | 0 | 2 | 0 | 0 | 9 | NR | 1 | 12 |
| Syphilis | 0 | 0 | 0 | 0 | 7 | NR | 4 | 11 |
| Rubella (CRS) | 0 | 4 | 0 | 0 | 0 | NR | 0 | 4 |

Figure 1: Most frequently reported suspected cases during week 37, Pakistan

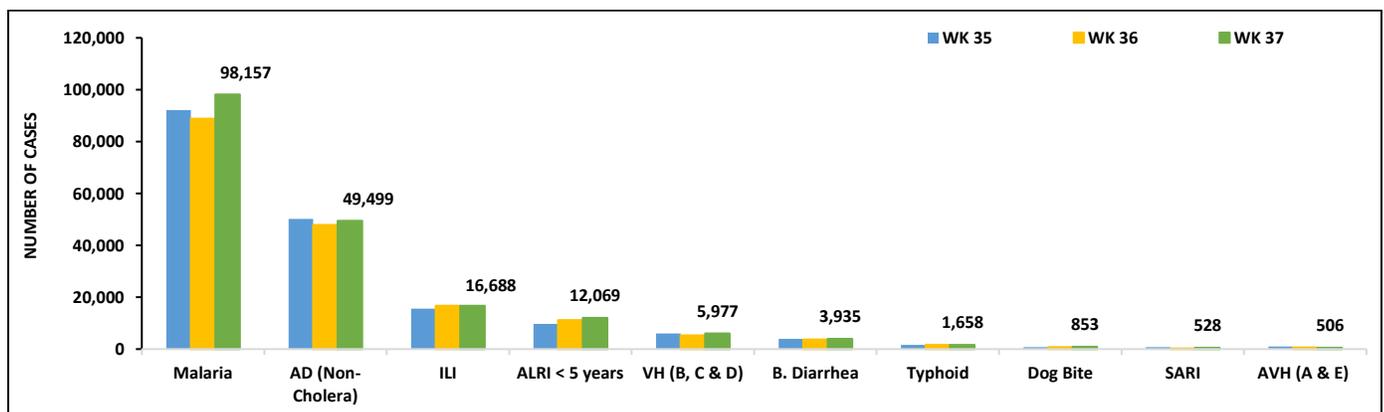


- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, VH (B, C, D), B. Diarrhea, Typhoid, dog bite, SARI, and AVH (A&E).
- Larkana and Kambar reported the highest Malaria cases whereas AD cases were mostly from Badin, Khairpur and and Kamber districts. Field investigation is required to identify the source to control the spread of diseases.
- Trends show an increase in Malaria cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during week 37, Sindh

| DISTRICTS | Malaria | AD (Non-Cholera) | ILI | ALRI < 5 years | VH (B, C & D) | B. Diarrhea | Typhoid | Dog Bite | SARI | AVH (A & E) |
|---------------------|---------------|------------------|---------------|----------------|---------------|--------------|--------------|------------|------------|-------------|
| Badin | 7,072 | 3,319 | 449 | 622 | 553 | 280 | 114 | 60 | 0 | 4 |
| Dadu | 5,752 | 2,831 | 109 | 1,211 | 21 | 515 | 151 | 0 | 0 | 0 |
| Ghotki | 1,883 | 1,037 | 0 | 490 | 330 | 106 | 0 | 0 | 0 | 0 |
| Hyderabad | 585 | 1,921 | 664 | 122 | 98 | 48 | 8 | 0 | 0 | 4 |
| Jacobabad | 2,796 | 1,376 | 109 | 1,455 | 95 | 184 | 8 | 61 | 0 | 2 |
| Jamshoro | 1,464 | 1,845 | 51 | 203 | 141 | 131 | 89 | 14 | 11 | 4 |
| Kamber | 10,116 | 3,097 | 0 | 363 | 263 | 187 | 37 | 0 | 0 | 0 |
| Karachi Central | 232 | 1,189 | 1,405 | 139 | 274 | 95 | 137 | 0 | 0 | 31 |
| Karachi East | 175 | 826 | 78 | 11 | 16 | 22 | 7 | 5 | 0 | 1 |
| Karachi Keamari | 9 | 403 | 238 | 36 | 0 | 3 | 5 | 0 | 0 | 5 |
| Karachi Korangi | 57 | 305 | 0 | 6 | 0 | 3 | 0 | 1 | 0 | 1 |
| Karachi Malir | 237 | 1,173 | 1,975 | 393 | 24 | 56 | 27 | 15 | 43 | 3 |
| Karachi South | 50 | 126 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 |
| Karachi West | 147 | 878 | 659 | 123 | 23 | 39 | 35 | 52 | 33 | 6 |
| Kashmore | 2,645 | 736 | 535 | 240 | 88 | 100 | 23 | 0 | 0 | 0 |
| Khairpur | 6,635 | 3,944 | 1,386 | 1,103 | 710 | 454 | 330 | 55 | 275 | 32 |
| Larkana | 17,485 | 2,771 | 1 | 542 | 134 | 444 | 10 | 0 | 0 | 0 |
| Matiali | 1,892 | 2,086 | 15 | 562 | 389 | 91 | 10 | 24 | 0 | 4 |
| Mirpurkhas | 5,789 | 2,306 | 2,949 | 586 | 96 | 100 | 43 | 35 | 62 | 17 |
| Naushero Feroze | 1,689 | 1,478 | 666 | 118 | 93 | 29 | 50 | 65 | 0 | 0 |
| Sanghar | 4,217 | 2,137 | 73 | 580 | 1,198 | 83 | 128 | 253 | 74 | 5 |
| Shaheed Benazirabad | 2,441 | 2,111 | 0 | 470 | 128 | 98 | 247 | 0 | 0 | 0 |
| Shikarpur | 3,991 | 1,608 | 2 | 119 | 375 | 139 | 8 | 110 | 4 | 0 |
| Sujawal | 1,796 | 1,105 | 0 | 296 | 6 | 49 | 17 | 0 | 0 | 0 |
| Sukkur | 4,852 | 1,777 | 1,983 | 498 | 337 | 233 | 15 | 0 | 1 | 0 |
| Tando Allahyar | 1,928 | 1,404 | 874 | 313 | 256 | 113 | 18 | 33 | 0 | 8 |
| Tando Muhammad Khan | 2,188 | 1,696 | 12 | 149 | 78 | 72 | 60 | 0 | 0 | 0 |
| Tharparkar | 2,932 | 1,320 | 1,463 | 588 | 81 | 83 | 32 | 3 | 3 | 19 |
| Thatta | 3,693 | 1,169 | 992 | 327 | 143 | 75 | 6 | 67 | 13 | 357 |
| Umerkot | 3,409 | 1,525 | 0 | 404 | 27 | 116 | 49 | 0 | 9 | 3 |
| Total | 98,157 | 49,499 | 16,688 | 12,069 | 5,977 | 3,949 | 1,668 | 853 | 528 | 506 |

Figure 2: Most frequently reported suspected cases during week 37, Sindh



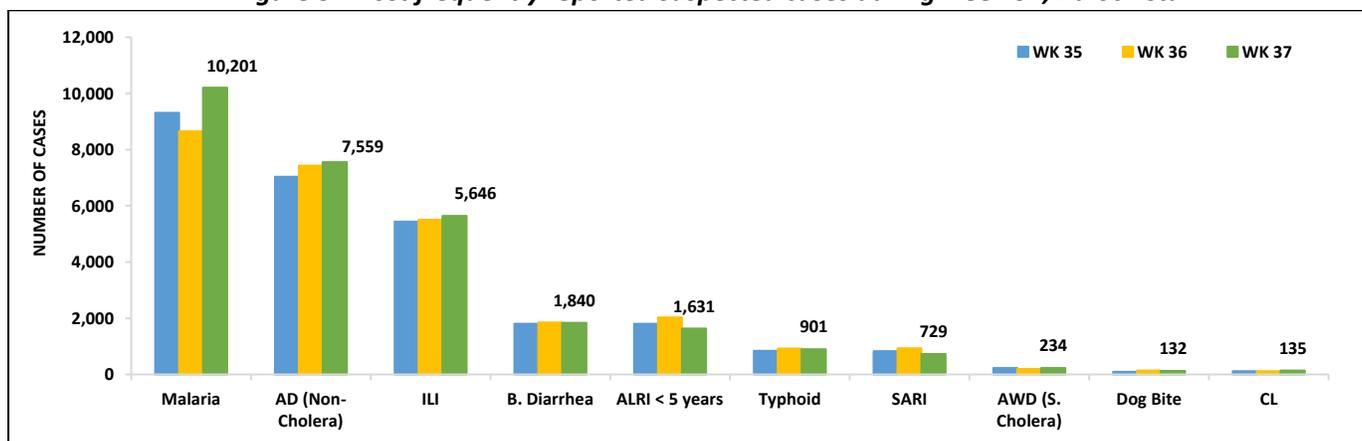
Balochistan

- Malaria, AD (Non-Cholera), ILI, ALRI < 5 years, B. Diarrhea, ALRI < 5 years, Typhoid, SARI, AWD (S. Cholera), dog bite and CL were the most frequently reported diseases from Balochistan province.
- Trend for ILI, AD and Malaria cases show an increase this week.
- Cases of Malaria reported from Sohbatpur and Jafferabad in high numbers. All are suspected cases and need field investigation to verify the cases.
- Quetta and Jafferabad reported CL cases this week. An investigation should be done to verify cases at one place and to classify as new and old cases on the other hand for effective management and control of the disease.

Table 3: District wise distribution of most frequently reported suspected cases during week 37, Balochistan

| Districts | Malaria | AD (Non-Cholera) | ILI | B. Diarrhea | ALRI < 5 years | Typhoid | SARI | AWD (S. Cholera) | Dog Bite | CL |
|----------------|---------------|------------------|--------------|--------------|----------------|------------|------------|------------------|------------|------------|
| Chagai | 0 | 206 | 299 | 61 | 0 | 36 | 1 | 28 | 0 | 0 |
| Chaman | 9 | 85 | 120 | 60 | 8 | 38 | 25 | 10 | 0 | 7 |
| Dera Bugti | 265 | 47 | 14 | 32 | 31 | 18 | 18 | 6 | 0 | 0 |
| Duki | 79 | 111 | 75 | 82 | 19 | 18 | 31 | 29 | 0 | 4 |
| Harnai | 91 | 112 | 6 | 146 | 208 | 10 | 0 | 5 | 0 | 0 |
| Hub | 634 | 342 | 97 | 52 | 38 | 9 | 61 | 2 | 0 | 4 |
| Jafferabad | 1,630 | 455 | 159 | 65 | 25 | 2 | 17 | 0 | 27 | 21 |
| Jhal Magsi | 826 | 383 | 148 | 14 | 23 | 7 | 0 | 4 | 23 | 0 |
| Kachhi (Bolan) | 760 | 460 | 237 | 55 | 63 | 60 | 69 | 8 | 3 | 6 |
| Kalat | 56 | 57 | 15 | 22 | 12 | 18 | 0 | 0 | 0 | 0 |
| Kech (Turbat) | 623 | 338 | 787 | 40 | 116 | 2 | 0 | 4 | 0 | 0 |
| Kharan | 87 | 146 | 308 | 71 | 0 | 9 | 0 | 12 | 0 | 0 |
| Khuzdar | 153 | 99 | 106 | 49 | 5 | 36 | 5 | 0 | 7 | 12 |
| Kohlu | 162 | 116 | 299 | 99 | 20 | 59 | 32 | 18 | 3 | 3 |
| Lasbella | 834 | 573 | 83 | 24 | 185 | 12 | 28 | 0 | 7 | 8 |
| Loralai | 103 | 238 | 343 | 71 | 58 | 34 | 92 | 2 | 0 | 0 |
| Mastung | 215 | 633 | 132 | 115 | 20 | 131 | 57 | 16 | 18 | 0 |
| Naseerabad | 496 | 343 | 2 | 31 | 16 | 43 | 0 | 1 | 37 | 3 |
| Nushki | 117 | 243 | 0 | 90 | 0 | 0 | 9 | 23 | 0 | 0 |
| Panjgur | 251 | 123 | 44 | 36 | 25 | 19 | 2 | 22 | 0 | 2 |
| Pishin | 12 | 52 | 74 | 33 | 41 | 15 | 2 | 0 | 4 | 11 |
| Quetta | 54 | 584 | 1,242 | 159 | 43 | 37 | 78 | 1 | 0 | 29 |
| Sherani | 9 | 15 | 34 | 12 | 0 | 4 | 4 | 0 | 0 | 4 |
| Sibi | 253 | 119 | 460 | 40 | 18 | 32 | 20 | 33 | 1 | 18 |
| Sohbat pur | 1,205 | 534 | 36 | 165 | 114 | 71 | 113 | 4 | 0 | 0 |
| SURAB | 84 | 73 | 125 | 11 | 38 | 86 | 12 | 0 | 0 | 0 |
| Usta Muhammad | 855 | 779 | 92 | 76 | 229 | 14 | 15 | 0 | 2 | 0 |
| Washuk | 115 | 164 | 215 | 78 | 8 | 14 | 5 | 0 | 0 | 2 |
| Zhob | 210 | 119 | 90 | 45 | 256 | 61 | 30 | 2 | 0 | 0 |
| Ziarat | 13 | 10 | 4 | 6 | 12 | 6 | 3 | 4 | 0 | 1 |
| Total | 10,201 | 7,559 | 5,646 | 1,840 | 1,631 | 901 | 729 | 234 | 132 | 135 |

Figure 3: Most frequently reported suspected cases during week 37, Balochistan

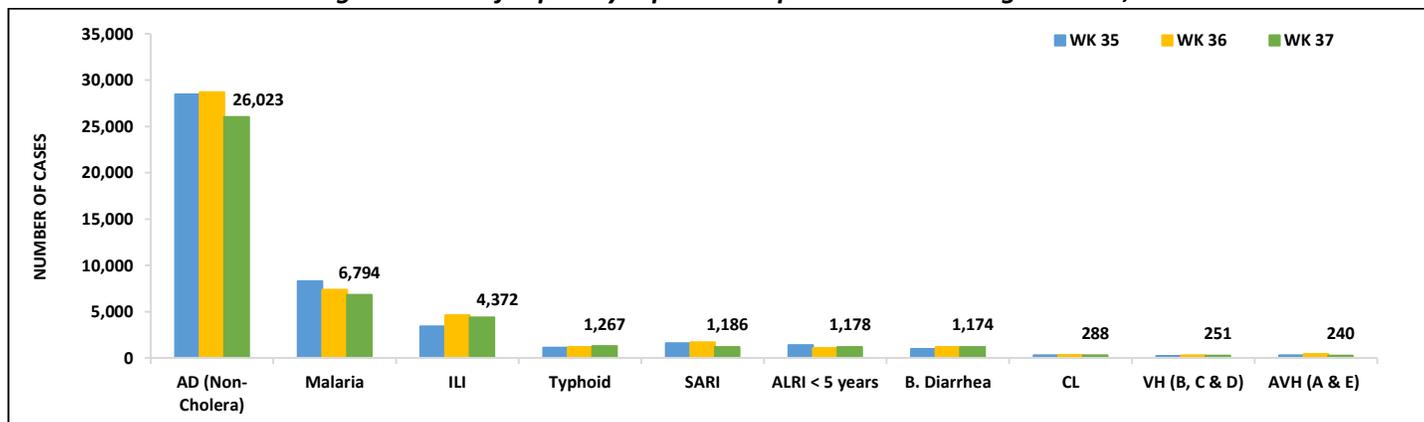


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, Typhoid, SARI, ALRI<5 Years, B. Diarrhea, CL and VH (B&C).
- AD cases declined whereas Malaria and ILI cases remained same this week.
- Swat, Peshawar and Lower Dir reported increased number of AD cases. These are suspected cases and a field investigation is required to verify cases.
- SARI cases reported in high numbers from Chitral lower which need urgent action to verify cases for further response.

Table 4: District wise distribution of most frequently reported suspected cases during week 37, KP

| Districts | AD (Non-Cholera) | Malaria | ILI | Typhoid | SARI | ALRI <5 Years | B. Diarrhea | CL | VH (B, C & D) | AVH (A & E) |
|----------------|------------------|--------------|--------------|--------------|--------------|---------------|--------------|------------|---------------|-------------|
| Abbottaba | 538 | 3 | 16 | 11 | 15 | 11 | 2 | 0 | 2 | 0 |
| Bajaur | 282 | 100 | 103 | 0 | 3 | 15 | 29 | 7 | 1 | 0 |
| Bannu | 733 | 1,185 | 54 | 55 | 15 | 2 | 6 | 4 | 0 | 3 |
| Battagram | 277 | 100 | 615 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| Buner | 477 | 533 | 0 | 25 | 0 | 48 | 3 | 0 | 0 | 0 |
| Charsadda | 1,072 | 67 | 193 | 0 | 10 | 29 | 0 | 0 | 0 | 0 |
| Chitral Lower | 316 | 5 | 140 | 2 | 326 | 0 | 9 | 8 | 0 | 0 |
| Chitral Upper | 74 | 0 | 0 | 10 | 64 | 0 | 0 | 0 | 0 | 1 |
| D.I. Khan | 965 | 460 | 22 | 2 | 42 | 7 | 31 | 4 | 0 | 0 |
| Dir Lower | 2,144 | 909 | 0 | 74 | 0 | 105 | 233 | 10 | 2 | 52 |
| Dir Upper | 1,044 | 30 | 6 | 28 | 0 | 45 | 54 | 0 | 0 | 6 |
| Hangu | 281 | 563 | 94 | 25 | 31 | 7 | 31 | 28 | 4 | 4 |
| Haripur | 1,502 | 111 | 322 | 61 | 2 | 212 | 5 | 0 | 26 | 50 |
| Karak | 305 | 283 | 20 | 4 | 15 | 5 | 3 | 82 | 0 | 0 |
| Khyber | 5 | 2 | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 |
| Kohat | 66 | 34 | 0 | 1 | 1 | 1 | 0 | 5 | 0 | 0 |
| Kohistan Lower | 166 | 1 | 0 | 0 | 10 | 12 | 31 | 0 | 0 | 0 |
| Kohistan Upper | 389 | 1 | 65 | 59 | 2 | 0 | 12 | 0 | 0 | 0 |
| Kolai Palas | 75 | 2 | 12 | 0 | 11 | 3 | 5 | 0 | 0 | 0 |
| L & C Kurram | 32 | 38 | 93 | 4 | 0 | 0 | 13 | 1 | 1 | 0 |
| Lakki Marwat | 633 | 300 | 0 | 11 | 0 | 30 | 18 | 14 | 0 | 0 |
| Malakand | 571 | 27 | 0 | 29 | 12 | 16 | 75 | 8 | 3 | 17 |
| Mansehra | 646 | 6 | 657 | 11 | 45 | 49 | 14 | 0 | 0 | 4 |
| Mardan | 571 | 168 | 0 | 0 | 0 | 137 | 18 | 4 | 7 | 0 |
| Mohmand | 49 | 24 | 25 | 2 | 12 | 17 | 3 | 5 | 0 | 0 |
| Nowshera | 2,278 | 172 | 3 | 21 | 40 | 3 | 31 | 38 | 11 | 6 |
| Peshawar | 3,048 | 131 | 770 | 216 | 62 | 123 | 171 | 14 | 23 | 20 |
| Shangla | 1,044 | 344 | 0 | 49 | 0 | 10 | 1 | 0 | 106 | 0 |
| SWA | 233 | 219 | 58 | 65 | 103 | 58 | 60 | 37 | 46 | 25 |
| Swabi | 1,237 | 64 | 374 | 12 | 11 | 149 | 17 | 0 | 5 | 10 |
| Swat | 4,056 | 68 | 206 | 4 | 0 | 20 | 107 | 1 | 2 | 17 |
| Tank | 516 | 634 | 0 | 144 | 0 | 29 | 6 | 7 | 0 | 0 |
| Tor Ghar | 93 | 158 | 0 | 37 | 6 | 0 | 26 | 10 | 0 | 0 |
| Upper Kurram | 305 | 52 | 524 | 301 | 346 | 35 | 155 | 1 | 12 | 20 |
| Total | 26,023 | 6,794 | 4,372 | 1,267 | 1,186 | 1,178 | 1,174 | 288 | 251 | 240 |

Figure 4: Most frequently reported suspected cases during week 37, KP



ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera). ILI cases showed a downward trend in cases this week.

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, B. Diarrhea, Malaria, AWD (S. Cholera), Mumps, Typhoid, and dog bite. Both ILI cases remained same whereas ALRI <5 years cases showed an upward trend in cases this week.

GB: AD (Non-Cholera) cases were maximum followed by ALRI <5 years, SARI and ILI. There was sharp decline in AD (Non-Cholera) cases this week.

ICT, AJK & GB

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

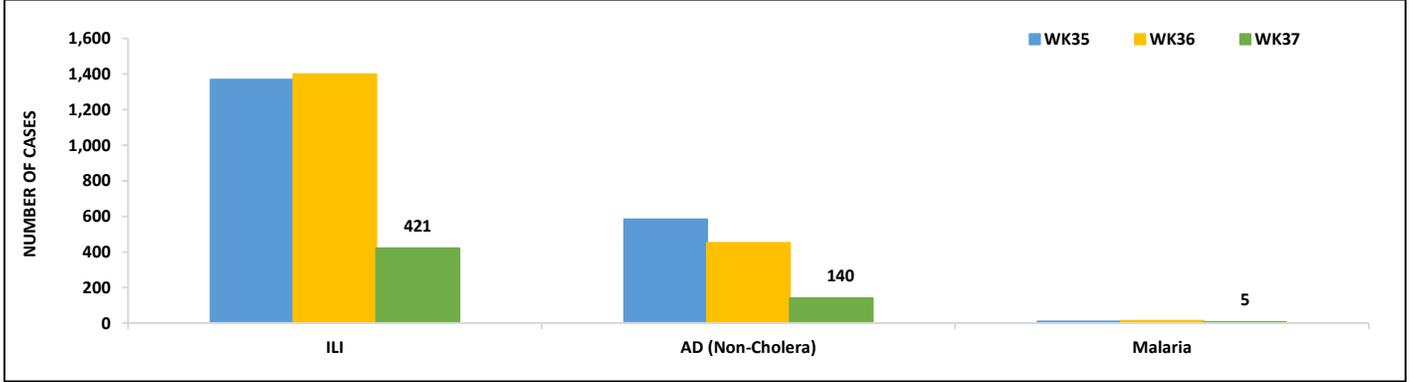


Figure 6: Week wise reported suspected cases of ILI, ICT

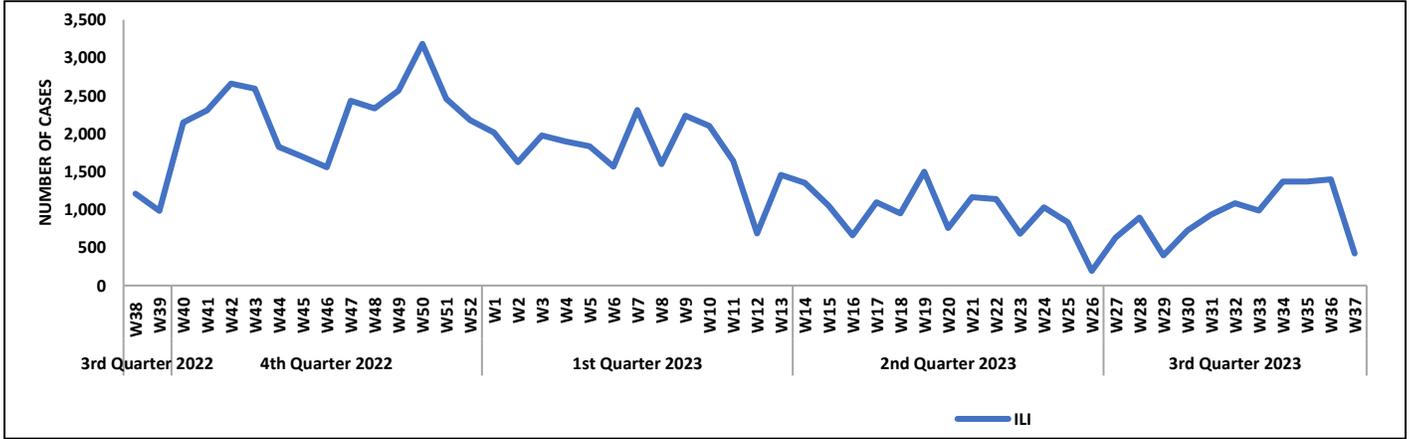


Figure 7: Most frequently reported suspected cases during week 37, AJK

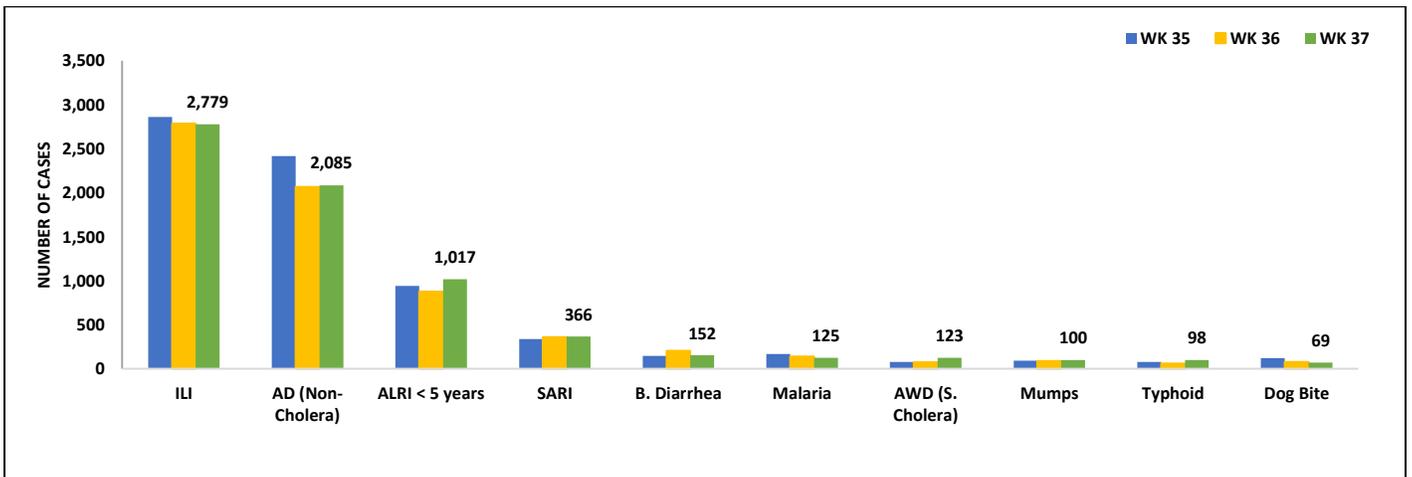


Figure 8: Week wise reported suspected cases of AD (Non-Cholera) and ILI, AJK

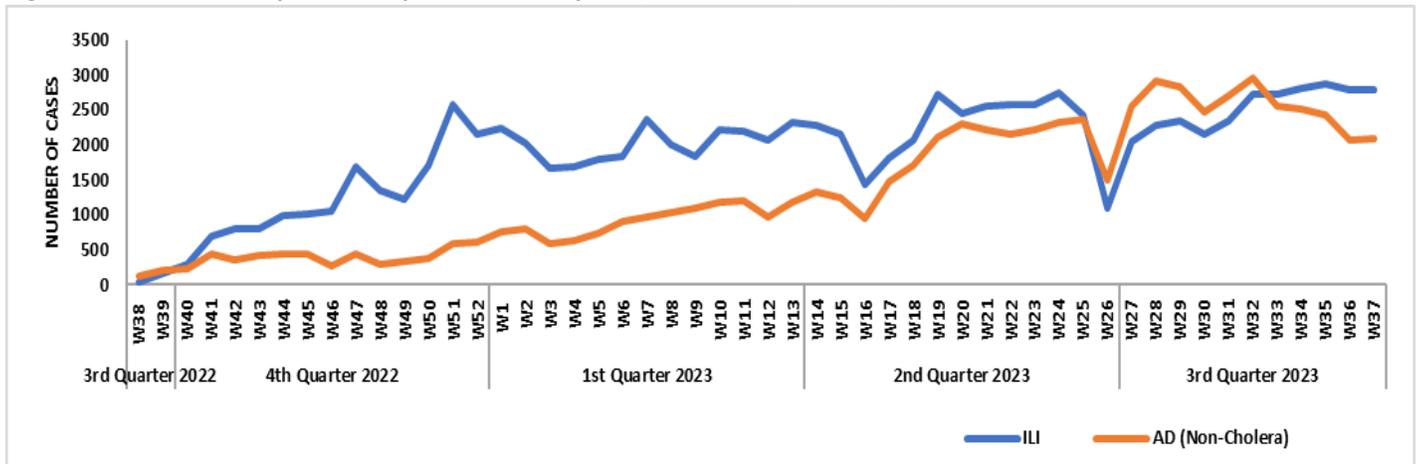


Figure 9: Most frequent cases reported during WK 37, GB

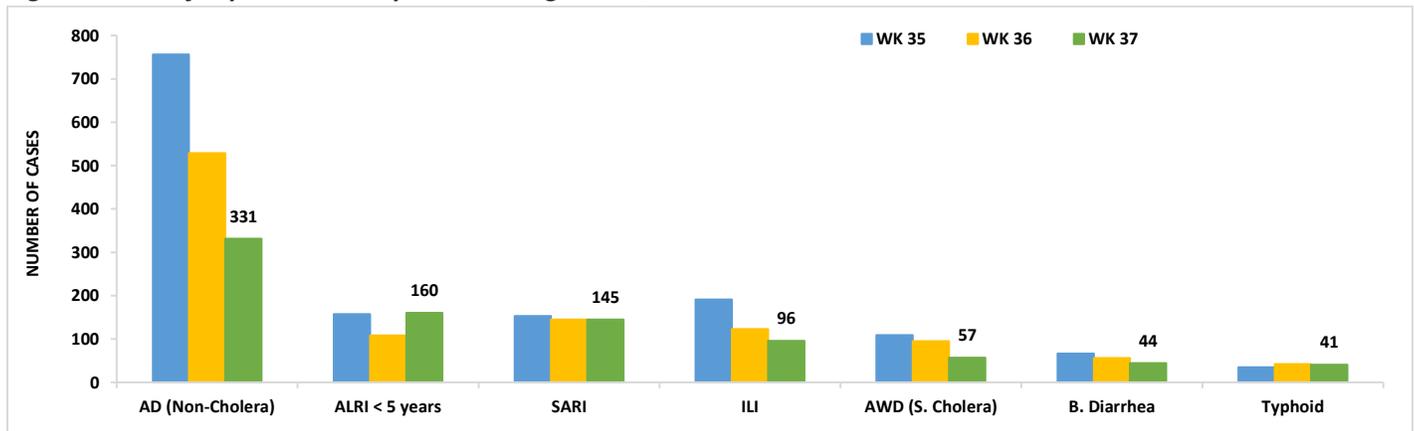
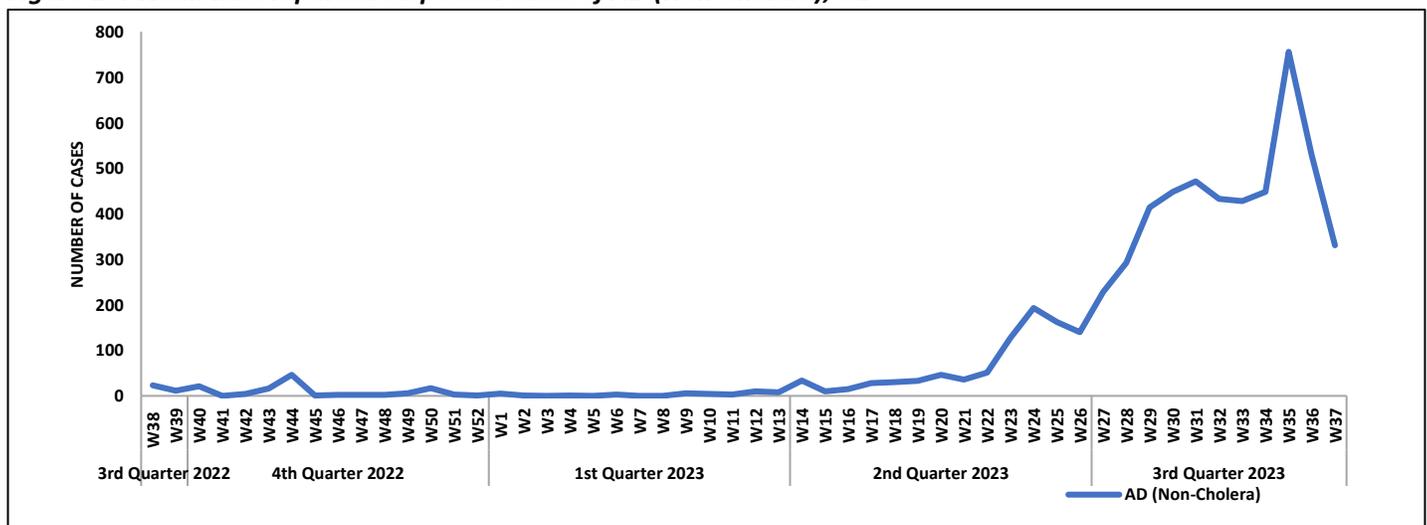


Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB



- AD (Non. Cholera) cases were most frequent followed by Malaria and Typhoid.
- Diarrhea cases were reported in high numbers from Lahore, Faisalabad, Rawalpindi and Gujranwala. All are suspected cases and need verification.

Figure 11: District wise distribution of most frequently reported suspected cases during week 37, Punjab

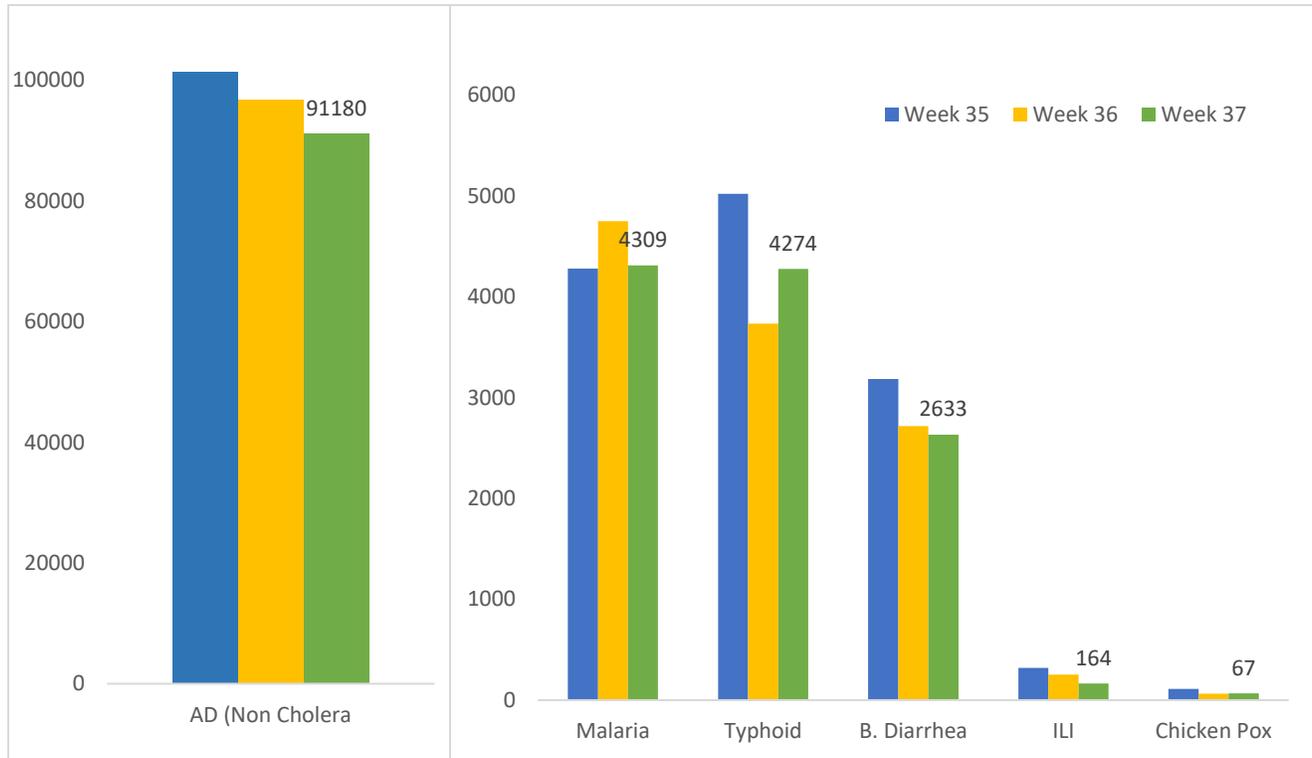


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 37

| Diseases | Sindh | Balochistan | Punjab | KPK | ISL | Gilgit |
|-------------------------------------|-------|-------------|--------|-----|-----|--------|
| Acute Watery Diarrhoea (S. Cholera) | 0 | - | - | 2 | - | - |
| Acute diarrhea(non-cholera) | 0 | - | 0 | - | - | - |
| Malaria | 300 | - | - | - | 1 | - |
| CCHF | - | 2 | - | 0 | - | 0 |
| Dengue | 28 | 1 | - | - | - | 10 |
| Acute Viral Hepatitis(A) | 0 | - | - | - | - | - |
| Acute Viral Hepatitis(B) | 67 | - | - | - | 1 | - |
| Acute Viral Hepatitis(C) | 150 | 24 | 0 | - | - | - |
| Acute Viral Hepatitis(E) | 2 | - | - | - | - | - |
| Typhoid | 7 | - | - | 3 | - | - |
| Covid 19 | - | 2 | - | 10 | - | 4 |

IDSR Reports Compliance

- Out of 120 IDSRs implemented districts, compliance is low from Balochistan districts. Green color showing >50% compliance while red color is <50% compliance

Table 6: IDSIR reporting districts Week 37

| 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 | 98 | 89% |
| | Bannu | 92 | 92 | 73 | 79% |
| | Buner | 34 | 34 | 25 | 74% |
| | Bajaur | 44 | 44 | 29 | 66% |
| | Charsadda | 61 | 61 | 49 | 80% |
| | Chitral Upper | 33 | 33 | 24 | 73% |
| | Chitral Lower | 35 | 35 | 5 | 14% |
| | D.I. Khan | 89 | 89 | 72 | 81% |
| | Dir Lower | 75 | 75 | 72 | 96% |
| | Dir Upper | 55 | 55 | 43 | 78% |
| | Hangu | 22 | 22 | 22 | 100% |
| | Haripur | 69 | 69 | 61 | 88% |
| | Karak | 34 | 34 | 34 | 100% |
| | Kohat | 59 | 59 | 59 | 100% |
| | Kohistan Lower | 11 | 11 | 11 | 100% |
| | Kohistan Upper | 20 | 20 | 17 | 85% |
| | Kolai Palas | 10 | 10 | 10 | 100% |
| | Lakki Marwat | 49 | 49 | 49 | 100% |
| | Lower & Central Kurram | 40 | 40 | 9 | 23% |
| | Upper Kurram | 42 | 42 | 15 | 36% |
| | Malakand | 42 | 42 | 33 | 79% |
| | Mansehra | 133 | 133 | 65 | 49% |
| | Mardan | 84 | 84 | 37 | 44% |
| | Nowshera | 52 | 52 | 51 | 98% |
| | North Waziristan | 21 | 21 | 1 | 5% |
| | Peshawar | 101 | 101 | 101 | 100% |
| | Shangla | 36 | 36 | 6 | 17% |
| | Swabi | 60 | 60 | 60 | 100% |
| | Swat | 77 | 77 | 68 | 88% |
| | South Waziristan | 58 | 58 | 36 | 62% |
| | Tank | 34 | 34 | 29 | 85% |
| Torghar | 11 | 11 | 11 | 100% | |
| Azad Jammu Kashmir | Mirpur | 37 | 37 | 36 | 100% |
| | Bhimber | 20 | 20 | 15 | 75% |
| | Kotli | 60 | 60 | 58 | 97% |
| | Muzaffarabad | 43 | 43 | 43 | 100% |
| | Poonch | 46 | 46 | 46 | 100% |
| | Haveli | 34 | 34 | 32 | 94% |
| | Bagh | 40 | 40 | 38 | 95% |
| | Neelum | 39 | 39 | 35 | 90% |
| | Jhelum Vellay | 29 | 29 | 29 | 100% |
| | Sudhnooti | 27 | 27 | 27 | 100% |
| Islamabad Capital Territory | ICT | 18 | 18 | 18 | 100% |
| | CDA | 9 | 9 | 7 | 78% |



| | | | | | |
|-------------------------|------------------|-----|-----|------|------|
| Balochistan | Kech | 78 | 44 | 25 | 57% |
| | Khuzdar | 136 | 20 | 17 | 85% |
| | Lasbella | 85 | 85 | 55 | 65% |
| | Pishin | 118 | 23 | 6 | 26% |
| | Quetta | 77 | 22 | 22 | 100% |
| | Sibi | 42 | 42 | 19 | 45% |
| | Zhob | 37 | 37 | 24 | 65% |
| | Jaffarabad | 47 | 47 | 14 | 30% |
| | Naserabad | 37 | 37 | 31 | 84% |
| | Kharan | 32 | 32 | 30 | 94% |
| | Sherani | 32 | 32 | 4 | 13% |
| | Kohlu | 75 | 75 | 33 | 44% |
| | Chagi | 35 | 35 | 26 | 74% |
| | Kalat | 65 | 65 | 15 | 23% |
| | Harnai | 18 | 18 | 17 | 94% |
| | Kachhi (Bolan) | 35 | 35 | 33 | 74% |
| | Jhal Magsi | 39 | 39 | 26 | 66% |
| | Sohbat pur | 25 | 25 | 25 | 100% |
| | Surab | 33 | 33 | 28 | 85% |
| | Mastung | 45 | 45 | 45 | 100% |
| | Loralai | 26 | 26 | 26 | 100% |
| | Ziarat | 42 | 42 | 12 | 29% |
| | Duki | 31 | 31 | 28 | 90% |
| | Nushki | 32 | 32 | 30 | 94% |
| | Dera Bugti | 45 | 45 | 24 | 53% |
| | Washuk | 25 | 25 | 15 | 60% |
| | Panjgur | 38 | 38 | 9 | 24% |
| | Chaman | 22 | 22 | 18 | 82% |
| Hub | 33 | 33 | 33 | 100% | |
| Usta Muhammad | 34 | 34 | 33 | 97% | |
| Gilgit Baltistan | Hunza | 31 | 31 | 31 | 100% |
| | Ghizer | 62 | 62 | 3 | 5% |
| | Gilgit | 48 | 48 | 22 | 5% |
| | Diامر | 79 | 79 | 14 | 18% |
| | Astore | 53 | 53 | 2 | 4% |
| | Shigar | 24 | 24 | 7 | 29% |
| | Skardu | 51 | 51 | 15 | 29% |
| Sindh | Hyderabad | 71 | 71 | 36 | 51% |
| | Ghotki | 65 | 65 | 64 | 98% |
| | Umerkot | 98 | 43 | 41 | 95% |
| | Naushahro Feroze | 68 | 68 | 62 | 91% |
| | Tharparkar | 278 | 100 | 97 | 97% |
| | Shikarpur | 60 | 60 | 60 | 100% |
| | Thatta | 53 | 53 | 50 | 94% |
| | Larkana | 67 | 67 | 67 | 100% |
| | Kamber Shadadkot | 71 | 71 | 69 | 97% |
| | Karachi-East | 14 | 14 | 14 | 100% |
| | Karachi-West | 20 | 20 | 20 | 100% |
| | Karachi-Malir | 37 | 37 | 22 | 59% |



| | | | | |
|---------------------|-----|-----|-----|------|
| Karachi-Kemari | 17 | 17 | 11 | 65% |
| Karachi-Central | 11 | 11 | 11 | 100% |
| Karachi-Korangi | 18 | 18 | 11 | 61% |
| Karachi-South | 4 | 4 | 4 | 100% |
| Sujawal | 31 | 31 | 31 | 100% |
| Mirpur Khas | 104 | 104 | 97 | 93% |
| Badin | 124 | 124 | 100 | 81% |
| Sukkur | 64 | 64 | 64 | 100% |
| Dadu | 90 | 90 | 90 | 100% |
| Sanghar | 101 | 101 | 99 | 98% |
| Jacobabad | 43 | 43 | 42 | 98% |
| Khairpur | 168 | 168 | 166 | 99% |
| Kashmore | 59 | 59 | 59 | 100% |
| Matari | 42 | 42 | 41 | 98% |
| Jamshoro | 70 | 70 | 65 | 93% |
| Tando Allahyar | 54 | 54 | 39 | 72% |
| Tando Muhammad Khan | 41 | 41 | 41 | 100% |
| Shaheed Benazirabad | 124 | 124 | 124 | 100% |



Public Health bulletin Pakistan.

The Pakistan Public Health Bulletin (PHB) made significant progress during the quarter in improving data reporting, dissemination of surveillance information, and audience engagement. These accomplishments will help to ensure that the PHB remains a valuable resource for public health professionals and stakeholders in Pakistan.

Key Achievements

- **Improved data reporting:** Provincial surveillance teams received technical assistance to improve data reporting from district to provincial and national levels. A monitoring dashboard was implemented, utilizing historical data for trend analysis and alert indicators establishment.
- **Enhanced dissemination of surveillance information:** The National Institute of Health (NIH) supported the dissemination of surveillance information to provincial health departments and other stakeholders, enhancing the epidemiological bulletin's standards, content, and format across all levels.
- **Strengthened public health data analysis capabilities:** Provincial surveillance teams participated in regular teleconference sessions to strengthen their public health data analysis capabilities and effectively utilize PHB surveillance information at local and district levels.
- **Timely, accurate, and relevant content:** The PHB delivered timely, accurate, and relevant content, adhering to editorial standards in support of its mission.
- **Comprehensive plan for audience engagement:** A comprehensive plan outlining strategy for audience engagement, retention, visibility expansion, and readership growth are being developed.
- **Effective collaboration with stakeholders and partners:** Effective collaboration with various stakeholders and partners facilitated the bulletin's broader reach and increased its impact.
- **Quality control and optimization of editorial processes:** Senior and Associate editors

diligently ensured quality control, timeliness, evaluation, and optimization of editorial processes. Bulletin development, review, and publication were executed punctually.

- **Management of the review process:** Management of the review process for surveillance publications involved addressing feedback accordingly. Disease trends were monitored; disease alerts and outbreaks identified; health departments engaged for response conduction; report submissions acquired for inclusion in the bulletin.
- **Website maintenance and updates:** The Pakistan Public Health Bulletin website was supervised and kept up-to-date.
- **Timely dissemination of the bulletin:** Timely dissemination of the bulletin via email to an updated contact list ensured stakeholder engagement.

These accomplishments demonstrate the PHB's commitment to providing high-quality public health information to its stakeholders. The PHB is an essential resource for public health professionals and stakeholders in Pakistan, and its continued progress will help to ensure that the country has the data and information it needs to protect and promote the health of its citizens.

A note from Field Activities.

Measles Outbreak Investigation at UC Dogar, Central Kurram, August 2023

Source: DHIS-2 Reports
<https://dhis2.nih.org.pk/dhis-web-event-reports/>

Introduction

Measles is a highly contagious viral respiratory illness that can cause serious complications, including pneumonia and encephalitis. It is most common in children under the age of five. Measles can be prevented with a safe and effective vaccine.

On June 11, 2023, the first two suspected measles cases were reported from THQ Hospital Dogar, UC Dogar, Central Kurram, Pakistan. The blood samples of both cases were collected on June 12, 2023, and laboratory confirmed the cases as measles on July 3,



2023. More cases were reported from Epid week no 24 till Week no 30. On August 24, 2023, a team comprising of Dr. Ahmed Fellow FETP, Dr. Khalid Aslam NSTOP Officer, Dr. Arif EPI Coordinator and Dr. Tahir DSO was tasked to investigate the measles outbreak in UC Dogar.

Methods

A descriptive study was conducted from Epid Week no 24 to Week no 34 at UC Dogar, Central Kurram. Data was collected on all confirmed measles cases, including their age, sex, vaccination status, and clinical presentation. An active case search was conducted through a structured questionnaire and interviewing of the household members of UC Dogar. In addition, an outbreak response was conducted in which unvaccinated children were vaccinated in UC Dogar.

Findings

Eleven confirmed measles cases were reported from UC Dogar, Central Kurram, from Epid Week 22 to 34. The attack rate in under-5-year-old children was 1.1%. The mean age of the cases was 14 months, and the median age was 15 months. All 11 cases were zero dose, meaning that they had received no measles vaccine.

Discussion

This measles outbreak investigation highlights the importance of routine measles vaccination coverage and the need for active case search and vaccination in security compromised areas. It also highlights the importance of IDSRs reporting and awareness sessions on measles vaccination.

Recommendations

The following recommendations were made:

- Access to security compromised areas to be ensured to extend the vaccination and VPD Surveillance
- IDSRs focal person needs to be trained and the IDSRs reporting should be taken more seriously
- Awareness sessions regarding measles vaccination should be held at the high-risk UCs

A note from Field Activities.

Report on Third Party Verification (TPV) of Malaria Surveillance & Control Activities in District Dera Ghazi Khan

Dr. M. Mohsan Wattoo,
Epidemiologist MIS Cel

Dr. Shaban Nadeem,
Manager Operation



Mr. Shahzad Hassan, Entomologist, **Dr Muhammad Ashraf,** **Dr. Atta ul Mohsin,** FELTP Fellow

A team from the Director General Health Services investigated on the ground malaria situation and conducted a third-party validation (TPV) of malaria surveillance and control activities in District Dera Ghazi Khan, Pakistan, from 31 August to 2 September 2023.

TORs: The team conducted the TPV according to the following terms of reference (TORs):

1. Data validation of malaria cases
2. Field surveillance to identify any hotspots/malaria vector breeding sites and to assess the status of malaria blood slides (MBS) and early case surveillance (ECS) and quality of case response
3. To assess the quality of diagnostic tools/kits/method
4. To assess the level of awareness of the general population about malaria health education
5. Devise special measures/strategy to control the disease spread through recommendations

Findings:

- Data validation: The team reviewed the malaria data reported by the Civil Hospital Fort Munro, THQ Hospital Khar, and two mobile camps at Fort Munro and Bawata. They found that 1297 suspected malaria cases were tested for malaria parasites, of which 90 were positive.
- Field surveillance: The team visited the catchment areas of the Civil Hospital Fort Munro and THQ Hospital Khar and identified several hotspots/malaria vector breeding



sites. They also assessed the status of MBS and ECS and found that the quality of case response was inadequate and substandard.

- Quality of diagnostic tools/kits/method: The team assessed the quality of diagnostic tools/kits/method used in the district and found that they were of acceptable quality.
- Awareness of general population: The team assessed the level of awareness of the general population about malaria health education and found that it was suboptimal and deficient.

Interventions by the Provincial Team:

The Provincial Malaria Control Program team sensitized the Senior Management of DHA DG Khan and updated the Action Plan to ensure the provision of all malaria-related services. They also provided capacity building to PAF lab staff and motivated hospital management to record and report malaria cases timely. The team provided Tablets Primaquine, Glass slides and needle picker to DHA DG Khan to strengthen the diagnostic and clinical management measures. The team imparted refresher trainings to field teams regarding vector surveillance, door marking, insecticides mixing, spraying techniques, and Fogging at the spot to strengthen the Malaria prevention & control activities. The team conducted health education sessions for all suspected patients visited PAF Hospital and all other reporting at camps. The team collected all confirmed & negative slides of Malaria cases to re-examine at Provincial CDC Malaria Lab.

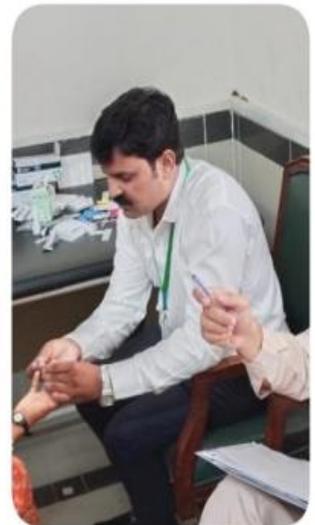
Recommendations:

- Malaria Counters, Ward/ HDU must be established in Civil Hospital with availability of all necessary medicines especially Primaquine.
- Data of all Malaria suspect and confirmed cases must be recorded and uploaded on DHIS2 and DSS dashboard.
- Availability of quality WHO prequalified RDTs must be ensured by the management of THQ Hospital Khar Fort Monro with ensuring preparation of diagnostic slides.
- All Bicytopenia patients must be diagnosed for Dengue through ELISA and report must be timely uploaded on PITB Dengue dashboard.

- Extensive surveillance and timely case response must be ensured to curtail the disease burden.

Conclusion:

The TPV team found that the malaria surveillance and control activities in District Dera Ghazi Khan need augmented efforts to overcome the spread of the disease. However, there are some areas for specific improvement, such as the establishment of malaria counters and wards/HDUs in all major hospitals, ensuring the timely reporting of all malaria cases, and increasing awareness about dengue fever. The team's recommendations should be implemented to further strengthen the malaria surveillance and control system in the district.



Knowledge Hub

Rabies: A Zoonotic Disease with a Deadly Toll:

Rabies is a viral zoonotic disease that causes progressive and fatal inflammation of the brain and spinal cord. It is caused by the rabies virus, which is found in the saliva of infected animals. Rabies can be transmitted to humans through the bite of an infected animal, or through contact with the saliva of an infected animal on an open wound or mucous membrane.

Epidemiology

Rabies is found in over 150 countries and territories worldwide. It is estimated that rabies kills over 59,000 people each year, mostly in Asia and Africa. Dogs are the most common source of rabies transmission to humans, accounting for over 99% of cases. Other animals that can transmit rabies include bats, cats, raccoons, foxes, and skunks.

Etiology

The rabies virus is a member of the Rhabdoviridae family. It is a bullet-shaped virus that is approximately 180 nanometers in length. The rabies virus is neurotropic, meaning that it prefers nerve tissue. Once the rabies virus enters the body, it travels to the central nervous system through the peripheral nerves. The virus then replicates in the brain and spinal cord, causing inflammation and destruction of nerve tissue.

Symptoms

The incubation period for rabies can range from a few days to several years. The initial symptoms of rabies are often nonspecific, such as fever, headache, and muscle aches. As the virus progresses, the symptoms become more severe and may include: Anxiety with Agitation, Confusion, Delusions & Hallucinations, Hydrophobia (fear of water) And Paralysis. Once the symptoms of rabies appear, the disease is almost always fatal.

Treatment

There is no specific treatment for rabies. However, there is a post-exposure prophylaxis (PEP) regimen that can be given to people who have been exposed

to the rabies virus. The PEP regimen consists of a series of rabies vaccine injections and rabies immunoglobulin (RIG). PEP is most effective if it is started within 72 hours of exposure to the rabies virus. However, it can be started later than 72 hours, but the effectiveness of the PEP regimen decreases with time.

Prevention

The best way to prevent rabies is to avoid contact with wild animals and to vaccinate pet dogs and cats against rabies. It is important to educate the public about rabies and how to prevent it. This includes educating people about the signs and symptoms of rabies in animals, and the importance of vaccinating their pets against rabies. It is also important to educate people about what to do if they are bitten by an animal. People should be advised to wash the wound immediately with soap and water, and to seek medical attention immediately.



Image Courtesy: makatimed





" World Rabies Day "

28th September, 2023



"Chance favors the prepared mind."

Anniversary of Louis Pasteur's death, the French chemist and microbiologist, who developed the first rabies vaccine.

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