

# Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control  
National Institute of Health, Islamabad

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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.

## Public Health Bulletin Pakistan

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## Overview

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## IDSR Reports

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## Ongoing Events

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## Field Reports

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### Public Health Bulletin - Pakistan, Week 31, 2024

Evolving from a basic disease registry, Pakistan's Public Health Bulletin has become an indispensable tool for safeguarding public health. By meticulously tracking disease trends, the Bulletin serves as an early warning system, enabling timely interventions to prevent outbreaks.

Beyond data compilation, the Bulletin offers in-depth analysis of critical public health issues. Recent editions have featured reports on the AMR National Action Plan consultative workshop and field activities addressing dengue and breastfeeding, demonstrating its commitment to providing comprehensive and actionable insights.

Through its Knowledge Hub, the Bulletin promotes knowledge sharing and empowers the public with vital health information. By disseminating information on topics such as acute flaccid paralysis and the importance of breastfeeding, the Bulletin contributes to building a healthier and more informed Pakistan.

By equipping everyone with knowledge, the Public Health Bulletin empowers Pakistanis to build a healthier nation.

Sincerely,  
The Chief Editor



- During week 31, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, TB, ALRI <5 years, B. Diarrhea, dog bite, VH (B, C & D), Typhoid and AWD (S. Cholera).
- Twenty-six cases of AFP reported from KP, eight each from Sindh and Punjab, three from GB, two from Balochistan and one from AJK. All are suspected cases and need field verification.
- Seven suspected cases of HIV/ AIDS reported from KP, six from Sindh and four from Punjab. Field investigation required to verify the cases.
- Ten suspected cases of Brucellosis reported from KP and two from Sindh. Field investigation required to verify the cases.
- Two suspected cases of CCHF reported from Punjab. Field investigation required to verify the cases.
- There is a decreasing trend observed for AD (Non-cholera), Malaria, ILI, TB, ALRI <5 years, dog bite, Typhoid and AWD (S. Cholera) cases this week.

## IDSR compliance attributes

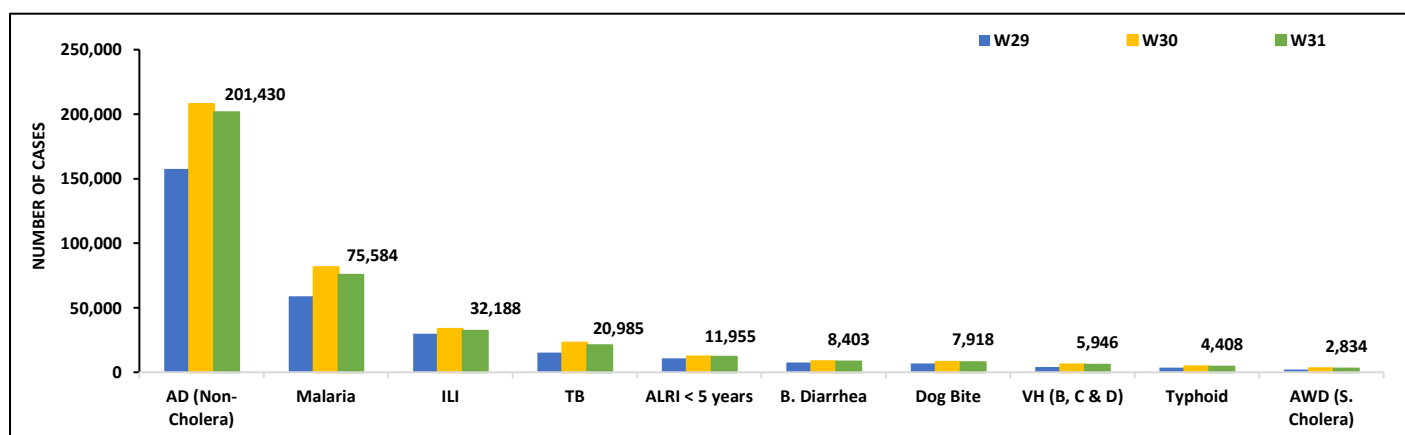
- The national compliance rate for IDSR reporting in 158 implemented districts is 82%
- Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 100%, followed by Sindh 92% and ICT 80%
- The lowest compliance rate was observed in Balochistan.

| Region                             | Expected Reports | Received Reports | Compliance (%) |
|------------------------------------|------------------|------------------|----------------|
| <i>Khyber Pakhtunkhwa</i>          | 2348             | 1707             | 73             |
| <i>Azad Jammu Kashmir</i>          | 383              | 380              | 99             |
| <i>Islamabad Capital Territory</i> | 36               | 29               | 81             |
| <i>Balochistan</i>                 | 1206             | 860              | 71             |
| <i>Gilgit Baltistan</i>            | 374              | 374              | 100            |
| <i>Sindh</i>                       | 2085             | 1975             | 95             |
| <i>National</i>                    | 6432             | 5325             | 83             |

**Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 31, Pakistan.**

| Diseases              | AJK   | Balochistan | GB    | ICT | KP     | Punjab  | Sindh  | Total   |
|-----------------------|-------|-------------|-------|-----|--------|---------|--------|---------|
| AD (Non-Cholera)      | 2,769 | 6,982       | 3,059 | 534 | 33,292 | 101,810 | 52,984 | 201,430 |
| Malaria               | 45    | 4,264       | 1     | 2   | 6,738  | 2,798   | 61,736 | 75,584  |
| ILI                   | 1,308 | 4,723       | 436   | 868 | 2,626  | 1       | 22,226 | 32,188  |
| TB                    | 64    | 109         | 97    | 7   | 472    | 9,013   | 11,223 | 20,985  |
| ALRI < 5 years        | 790   | 1,251       | 515   | 3   | 1,196  | 703     | 7,497  | 11,955  |
| B. Diarrhea           | 118   | 1,598       | 179   | 1   | 2,032  | 993     | 3,482  | 8,403   |
| Dog Bite              | 80    | 101         | 3     | 0   | 536    | 5,130   | 2,068  | 7,918   |
| VH (B, C & D)         | 2     | 59          | 3     | 0   | 118    | 0       | 5,764  | 5,946   |
| Typhoid               | 40    | 678         | 106   | 0   | 642    | 1,974   | 968    | 4,408   |
| AWD (S. Cholera)      | 50    | 106         | 231   | 0   | 187    | 2,229   | 31     | 2,834   |
| SARI                  | 173   | 511         | 341   | 1   | 1,144  | 0       | 193    | 2,363   |
| Dengue                | 0     | 0           | 0     | 0   | 23     | 889     | 76     | 988     |
| AVH (A&E)             | 27    | 28          | 2     | 0   | 283    | 0       | 530    | 870     |
| Measles               | 33    | 17          | 2     | 0   | 256    | 398     | 71     | 777     |
| CL                    | 1     | 81          | 0     | 0   | 262    | 6       | 2      | 352     |
| Mumps                 | 2     | 38          | 7     | 0   | 44     | 0       | 127    | 218     |
| Gonorrhea             | 0     | 66          | 0     | 0   | 17     | 0       | 78     | 161     |
| Chickenpox/ Varicella | 4     | 4           | 46    | 0   | 71     | 9       | 23     | 157     |
| Chikungunya           | 0     | 0           | 0     | 0   | 0      | 0       | 100    | 100     |
| AFP                   | 1     | 2           | 3     | 0   | 26     | 8       | 8      | 48      |
| Pertussis             | 0     | 36          | 0     | 0   | 6      | 0       | 2      | 44      |
| Meningitis            | 4     | 1           | 0     | 0   | 21     | 11      | 3      | 40      |
| Syphilis              | 0     | 7           | 0     | 0   | 0      | 0       | 10     | 17      |
| HIV/AIDS              | 0     | 0           | 0     | 0   | 7      | 4       | 6      | 17      |
| Leprosy               | 0     | 0           | 0     | 0   | 16     | 0       | 0      | 16      |
| Diphtheria (Probable) | 0     | 0           | 0     | 0   | 4      | 1       | 8      | 13      |
| Brucellosis           | 0     | 0           | 0     | 0   | 10     | 0       | 2      | 12      |
| NT                    | 0     | 0           | 0     | 0   | 6      | 0       | 2      | 8       |
| Rubella (CRS)         | 0     | 2           | 1     | 0   | 0      | 0       | 0      | 3       |
| CCHF                  | 0     | 0           | 0     | 0   | 0      | 2       | 0      | 2       |

**Figure 1: Most frequently reported suspected cases during week 31, Pakistan.**

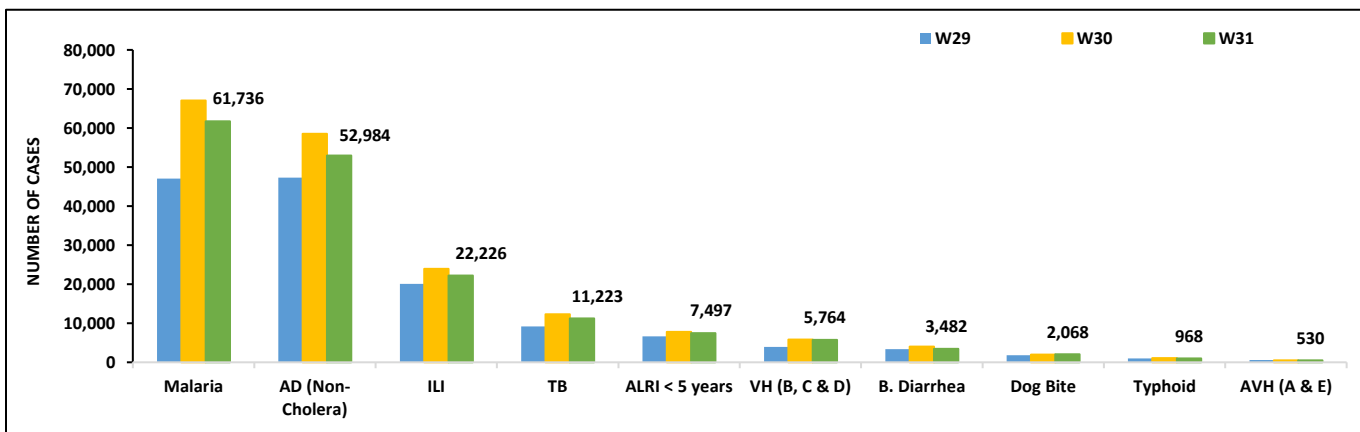


- Malaria cases were maximum followed by AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and AVH (A & E).
- Malaria cases are mostly from Badin, Larkana and Khairpur whereas AD (Non-Cholera) cases are from Badin, Thatta and Mirpurkhas.
- Eight cases of AFP, six cases of HIV/ AIDS and Two suspected cases of Brucellosis reported from Sindh All are suspected cases and need field verification.
- There is a decreasing trend observed for Malaria, AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea and Typhoid cases this week.

**Table 2: District wise distribution of most frequently reported suspected cases during week 31, Sindh**

| Districts           | Malaria       | AD (Non-Cholera) | ILI           | TB            | ALRI < 5 years | VH (B, C & D) | B. Diarrhea  | Dog Bite     | Typhoid    | AVH (A&E)  |
|---------------------|---------------|------------------|---------------|---------------|----------------|---------------|--------------|--------------|------------|------------|
| Badin               | 5,897         | 4,329            | 558           | 912           | 570            | 259           | 235          | 51           | 81         | 6          |
| Dadu                | 3,873         | 2,729            | 117           | 407           | 585            | 38            | 553          | 130          | 131        | 25         |
| Ghotki              | 1,524         | 1,216            | 0             | 299           | 278            | 357           | 92           | 291          | 0          | 19         |
| Hyderabad           | 156           | 1,454            | 1,385         | 37            | 44             | 37            | 0            | 0            | 12         | 0          |
| Jacobabad           | 666           | 680              | 443           | 134           | 278            | 266           | 78           | 124          | 31         | 0          |
| Jamshoro            | 1,841         | 2,237            | 69            | 400           | 162            | 415           | 118          | 54           | 49         | 5          |
| Kamber              | 3,724         | 1,958            | 0             | 733           | 230            | 76            | 130          | 168          | 14         | 0          |
| Karachi Central     | 1             | 1,231            | 1,035         | 143           | 32             | 9             | 49           | 26           | 29         | 4          |
| Karachi East        | 61            | 412              | 213           | 11            | 6              | 9             | 18           | 5            | 5          | 3          |
| Karachi Keamari     | 1             | 220              | 38            | 0             | 18             | 0             | 1            | 0            | 5          | 0          |
| Karachi Korangi     | 59            | 336              | 21            | 1             | 0              | 0             | 2            | 0            | 2          | 12         |
| Karachi Malir       | 403           | 2,134            | 2,770         | 154           | 268            | 55            | 82           | 43           | 39         | 5          |
| Karachi South       | 44            | 84               | 1             | 0             | 0              | 0             | 0            | 0            | 0          | 0          |
| Karachi West        | 149           | 1,054            | 1,455         | 159           | 195            | 147           | 64           | 84           | 32         | 14         |
| Kashmore            | 1,276         | 523              | 324           | 284           | 167            | 31            | 88           | 143          | 4          | 0          |
| Khairpur            | 4,631         | 2,991            | 3,955         | 821           | 685            | 223           | 341          | 116          | 169        | 6          |
| Larkana             | 5,583         | 2,002            | 0             | 907           | 215            | 108           | 282          | 15           | 26         | 0          |
| Matiali             | 1,727         | 1,852            | 6             | 598           | 193            | 443           | 91           | 41           | 12         | 1          |
| Mirpurkhas          | 4,134         | 3,450            | 2,646         | 746           | 466            | 209           | 127          | 43           | 19         | 7          |
| Naushero Feroze     | 1,586         | 1,334            | 799           | 390           | 195            | 18            | 131          | 166          | 102        | 0          |
| Sanghar             | 3,213         | 1,583            | 2             | 907           | 288            | 1,369         | 29           | 125          | 10         | 3          |
| Shaheed Benazirabad | 1,739         | 1,869            | 10            | 339           | 190            | 132           | 58           | 134          | 86         | 3          |
| Shikarpur           | 2,000         | 1,108            | 0             | 178           | 96             | 664           | 121          | 44           | 2          | 0          |
| Sujawal             | 2,698         | 2,385            | 0             | 96            | 161            | 55            | 29           | 39           | 19         | 55         |
| Sukkur              | 1,879         | 1,343            | 1,227         | 422           | 255            | 101           | 171          | 39           | 5          | 0          |
| Tando Allahyar      | 1,952         | 1,659            | 512           | 550           | 175            | 389           | 167          | 80           | 9          | 4          |
| Tando Muhammad Khan | 2,723         | 1,659            | 0             | 683           | 156            | 68            | 80           | 0            | 1          | 0          |
| Tharparkar          | 3,312         | 3,167            | 1,750         | 500           | 750            | 188           | 208          | 0            | 30         | 30         |
| Thatta              | 2,521         | 3,616            | 2,889         | 43            | 414            | 51            | 68           | 106          | 12         | 323        |
| Umerkot             | 2,362         | 2,368            | 0             | 368           | 424            | 46            | 68           | 0            | 31         | 4          |
| <b>Total</b>        | <b>61,736</b> | <b>52,984</b>    | <b>22,226</b> | <b>11,223</b> | <b>7,497</b>   | <b>5,764</b>  | <b>3,482</b> | <b>2,068</b> | <b>968</b> | <b>530</b> |

**Figure 2: Most frequently reported suspected cases during week 31 Sindh**

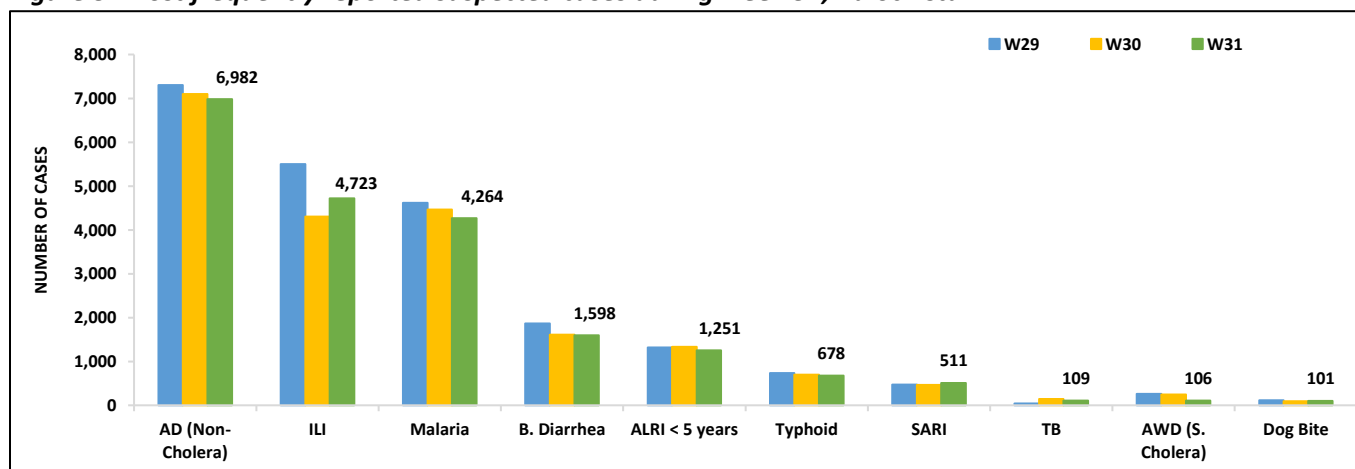


- AD (Non-Cholera), ILI, Malaria, B. Diarrhea, ALRI <5 years, Typhoid, SARI, TB, AWD (S. Cholera) and dog bite cases were the most frequently reported diseases from Balochistan province.
- AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Quetta and Pishin while ILI cases are mostly reported from Quetta, Pishin and Washuk.
- AD (Non-Cholera), Malaria, B. Diarrhea, ALRI <5 years, Typhoid, TB and AWD (S. Cholera) cases showed a decreasing trend while ILI, SARI and dog bite cases showed an increasing trend this week.
- Two cases of AFP reported from Balochistan. All are suspected cases and need field verification.

**Table 3: District wise distribution of most frequently reported suspected cases during week 31, Balochistan**

| Districts       | AD Non-Cholera) | ILI          | Malaria      | B. Diarrhea  | ALRI < 5 years | Typhoid    | SARI       | AWD (S.Cholera) | CL         | Dog Bite   |
|-----------------|-----------------|--------------|--------------|--------------|----------------|------------|------------|-----------------|------------|------------|
| Awaran          | 8               | 13           | 24           | 8            | 9              | 3          | 3          | 0               | 4          | 0          |
| Barkhan         | 106             | 46           | 155          | 3            | 28             | 37         | 0          | 12              | 1          | 7          |
| Chagai          | 90              | 142          | 26           | 38           | 0              | 13         | 0          | 0               | 2          | 2          |
| Dera Bugti      | 79              | 36           | 153          | 29           | 28             | 20         | 37         | 0               | 0          | 1          |
| Harnai          | 90              | 22           | 90           | 80           | 129            | 1          | 0          | 0               | 6          | 1          |
| Hub             | 332             | 67           | 128          | 34           | 5              | 3          | 0          | 6               | 0          | 13         |
| Jaffarabad      | 498             | 58           | 810          | 66           | 36             | 9          | 11         | 44              | 12         | 17         |
| Jhal Magsi      | 239             | 250          | 270          | 13           | 12             | 4          | 0          | 6               | 0          | 16         |
| Kalat           | 51              | 1            | 76           | 17           | 16             | 36         | 6          | 1               | 0          | 0          |
| Kharan          | 147             | 279          | 37           | 51           | 0              | 5          | 0          | 0               | 0          | 0          |
| Khuzdar         | 237             | 287          | 186          | 69           | 8              | 38         | 37         | NR              | 7          | NR         |
| Killa Abdullah  | 234             | 71           | 32           | 105          | 18             | 33         | 7          | 0               | 0          | 5          |
| Killa Saifullah | 278             | 0            | 215          | 53           | 129            | 10         | 0          | 0               | 0          | 1          |
| Kohlu           | 220             | 303          | 187          | 114          | 15             | 41         | 56         | NR              | 4          | 1          |
| Lasbella        | 351             | 72           | 365          | 19           | 74             | 2          | 5          | 0               | 0          | 0          |
| Loralai         | 267             | 313          | 74           | 53           | 41             | 27         | 112        | 0               | 4          | 7          |
| Mastung         | 280             | 115          | 115          | 69           | 37             | 36         | 14         | 5               | 8          | 14         |
| Musakhel        | 23              | 19           | 82           | 13           | 1              | 7          | 0          | 2               | 8          | 0          |
| Naseerabad      | 251             | 43           | 135          | 26           | 45             | 64         | 1          | 1               | 0          | 4          |
| Nushki          | 209             | 0            | 19           | 56           | 0              | 0          | 0          | 0               | 3          | 0          |
| Pishin          | 541             | 416          | 91           | 207          | 39             | 63         | 1          | 2               | 6          | 6          |
| Quetta          | 706             | 1,162        | 38           | 187          | 64             | 71         | 46         | 1               | 16         | 0          |
| Sherani         | 34              | 74           | 8            | 12           | 7              | 5          | 28         | 0               | 3          | 0          |
| Sibi            | 122             | 134          | 112          | 28           | 33             | 24         | 34         | 0               | 14         | 3          |
| Sohbat pur      | 263             | 2            | 171          | 53           | 147            | 29         | 13         | 8               | 2          | 2          |
| Surab           | 84              | 191          | 87           | 0            | 11             | 48         | 0          | 0               | 0          | 0          |
| Usta Muhammad   | 893             | 88           | 423          | 58           | 108            | 17         | 7          | 0               | 0          | 1          |
| Washuk          | 231             | 350          | 83           | 101          | 4              | 16         | 19         | 0               | 5          | 0          |
| Zhob            | 118             | 169          | 72           | 36           | 207            | 16         | 74         | 21              | 1          | 0          |
| <b>Total</b>    | <b>6,982</b>    | <b>4,723</b> | <b>4,264</b> | <b>1,598</b> | <b>1,251</b>   | <b>678</b> | <b>511</b> | <b>109</b>      | <b>106</b> | <b>101</b> |

**Figure 3: Most frequently reported suspected cases during week 31, Balochistan**

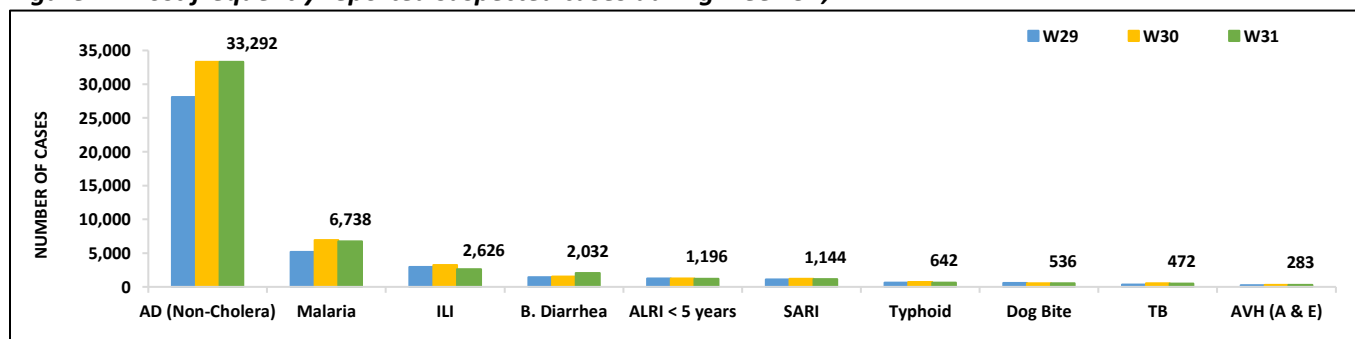


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, B. Diarrhea, ALRI<5 Years, SARI, Typhoid, dog bite, TB and AVH (A & E) cases.
- Malaria, ILI, ALRI<5 Years, SARI, Typhoid, TB and AVH (A & E) cases showed a decreasing trend this week.
- Twenty-six cases of AFP, Seven suspected cases of HIV/ AIDS and Ten suspected cases of Brucellosis reported from KP. Field investigation required to verify the cases.

**Table 4: District wise distribution of most frequently reported suspected cases during week 31, KP**

| Districts        | AD (Non-Cholera) | Malaria      | ILI          | B.Diarrhea   | ALRI <5 Years | SARI         | Typhoid    | Dog Bite   | TB         | AVH (A&E)  |
|------------------|------------------|--------------|--------------|--------------|---------------|--------------|------------|------------|------------|------------|
| Abbottabad       | 987              | 25           | 36           | 9            | 17            | 0            | 31         | 4          | 21         | 0          |
| Bajaur           | 1,129            | 195          | 29           | 113          | 295           | 56           | 2          | 57         | 23         | 49         |
| Bannu            | 873              | 1,488        | 5            | 34           | 15            | 21           | 81         | 7          | 24         | 2          |
| Battagram        | 152              | 217          | 333          | 0            | 0             | 0            | 0          | 0          | 0          | 0          |
| Buner            | 497              | 372          | 0            | 0            | 0             | 0            | 6          | 6          | 3          | 0          |
| Charsadda        | 1,268            | 156          | 247          | 134          | 38            | 0            | 42         | 6          | 0          | 41         |
| Chitral Lower    | 859              | 15           | 72           | 63           | 9             | 15           | 11         | 9          | 7          | 0          |
| Chitral Upper    | 235              | 3            | 7            | 2            | 4             | 5            | 15         | 0          | 1          | 6          |
| D.I. Khan        | 1,290            | 294          | 0            | 27           | 14            | 0            | 1          | 10         | 45         | 4          |
| Dir Lower        | 2,343            | 166          | 4            | 125          | 83            | 0            | 52         | 24         | 13         | 7          |
| Dir Upper        | 1,113            | 9            | 72           | 10           | 34            | 0            | 5          | 0          | 22         | 3          |
| Hangu            | 99               | 105          | 0            | 3            | 20            | 0            | 0          | 0          | 1          | 0          |
| Haripur          | 1,014            | 30           | 75           | 19           | 30            | 6            | 19         | 5          | 23         | 42         |
| Karak            | 253              | 159          | 21           | 0            | 15            | 0            | 3          | 24         | 5          | 0          |
| Khyber           | 793              | 299          | 20           | 364          | 6             | 47           | 59         | 29         | 11         | 22         |
| Kohat            | 505              | 155          | 63           | 0            | 24            | 0            | 25         | 10         | 3          | 0          |
| Kohistan Lower   | 175              | 4            | 0            | 8            | 1             | 0            | 0          | 1          | 0          | 0          |
| Kohistan Upper   | 577              | 20           | 7            | 18           | 39            | 16           | 1          | 2          | 18         | 0          |
| Kolai Palas      | 61               | 5            | 6            | 6            | 2             | 13           | 1          | 0          | 0          | 0          |
| L & C Kurram     | 74               | 29           | 49           | 18           | 1             | 15           | 9          | 3          | 0          | 0          |
| Lakki Marwat     | 659              | 228          | 1            | 14           | 3             | 0            | 11         | 35         | 4          | 0          |
| Malakand         | 1,012            | 92           | 11           | 267          | 41            | 6            | 18         | 0          | 3          | 24         |
| Mansehra         | 936              | 0            | 255          | 1            | 28            | 30           | 18         | 0          | 1          | 0          |
| Mardan           | 814              | 34           | 0            | 26           | 246           | 0            | 0          | 2          | 7          | 0          |
| Mohmand          | 140              | 214          | 89           | 54           | 3             | 82           | 14         | 8          | 6          | 0          |
| North Waziristan | 41               | 30           | 0            | 0            | 0             | 0            | 3          | 0          | 0          | 2          |
| Nowshera         | 2,285            | 98           | 37           | 33           | 1             | 11           | 38         | 10         | 46         | 12         |
| Orakzai          | 50               | 31           | 23           | 10           | 0             | 0            | 1          | 18         | 1          | 0          |
| Peshawar         | 3,743            | 93           | 505          | 127          | 43            | 45           | 78         | 18         | 22         | 27         |
| SD Peshawar      | 3                | 0            | 0            | 0            | 0             | 0            | 0          | 0          | 0          | 0          |
| SD Tank          | 13               | 43           | 2            | 0            | 0             | 0            | 0          | 0          | 0          | 0          |
| Shangla          | 2,205            | 1,523        | 0            | 52           | 11            | 9            | 8          | 58         | 67         | 5          |
| SWA              | 100              | 149          | 99           | 29           | 30            | 70           | 21         | 6          | 13         | 0          |
| Swabi            | 1,900            | 88           | 165          | 23           | 46            | 15           | 23         | 115        | 47         | 9          |
| Swat             | 4,443            | 56           | 133          | 308          | 75            | 26           | 26         | 61         | 20         | 25         |
| Tank             | 208              | 119          | 0            | 0            | 0             | 0            | 2          | 0          | 10         | 0          |
| Tor Ghar         | 106              | 170          | 0            | 27           | 0             | 9            | 3          | 0          | 0          | 2          |
| Upper Kurram     | 337              | 24           | 260          | 108          | 22            | 647          | 15         | 8          | 5          | 1          |
| <b>Total</b>     | <b>33,292</b>    | <b>6,738</b> | <b>2,626</b> | <b>2,032</b> | <b>1,196</b>  | <b>1,144</b> | <b>642</b> | <b>536</b> | <b>472</b> | <b>283</b> |

**Figure 4: Most frequently reported suspected cases during week 31, KP**



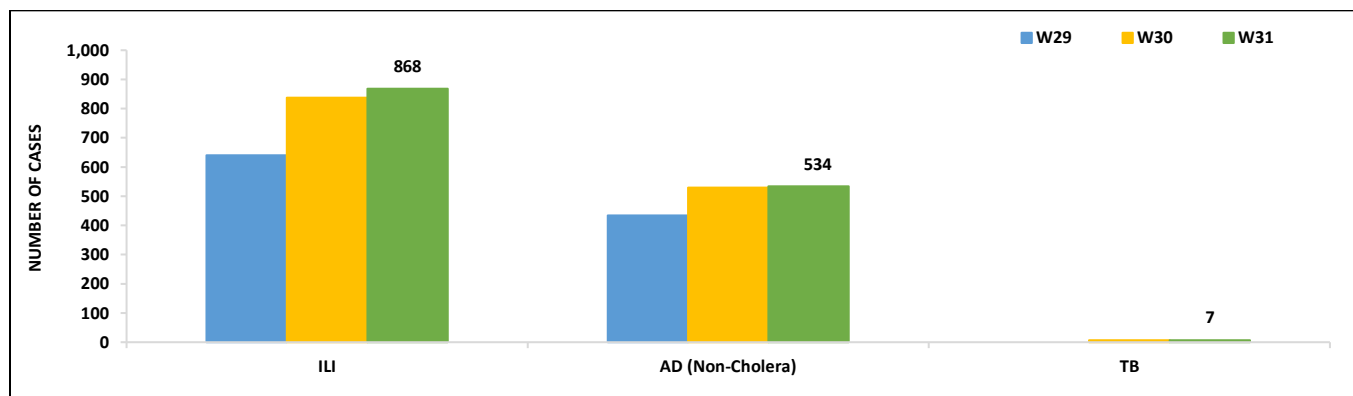
**ICT:** The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera) and TB. ILI, and AD (Non-Cholera) cases showed an increasing trend this week.

**AJK:** AD (Non-Cholera) cases were maximum followed by ILI, ALRI <5 years, SARI, B. Diarrhea, dog bite, TB, AWD (S. Cholera), Malaria and Typhoid cases. An increasing trend observed for AD (Non-Cholera), ILI and ALRI <5 years cases while a decreasing trend observed for SARI, B. Diarrhea, dog bite, TB, AWD (S. Cholera), Malaria and Typhoid cases this week. One suspected case of AFP reported from AJK. Field investigation required to verify the case.

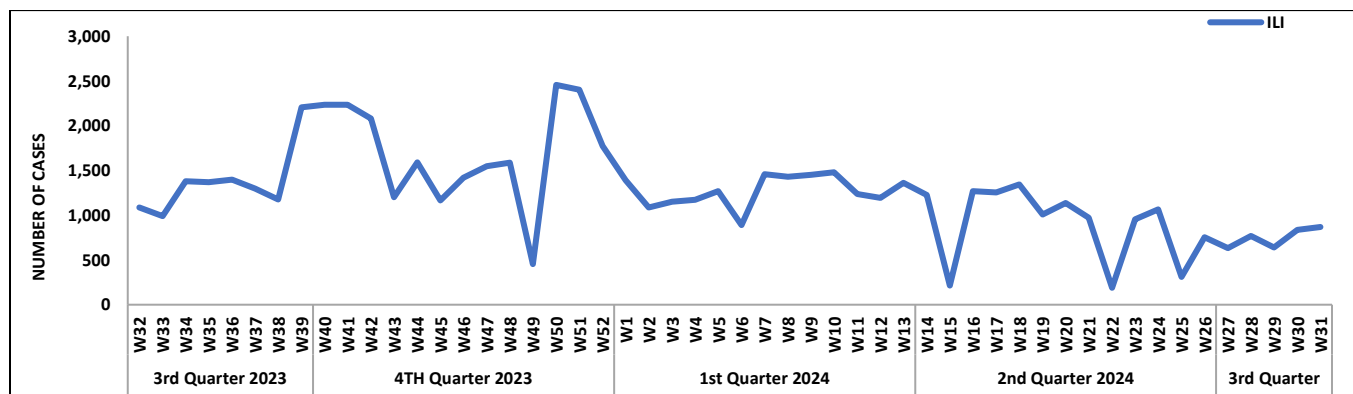
**GB:** AD (Non-Cholera) cases were the most frequently reported diseases followed by ALRI <5 Years, ILI, SARI, AWD (S. Cholera), B. Diarrhea, Typhoid and TB cases. An increasing trend observed for AD (Non-Cholera), ALRI <5 Years, ILI, SARI, AWD (S. Cholera), B. Diarrhea and Typhoid cases this week. Three cases of AFP reported from GB. All are suspected cases and need field verification.

# ICT, AJK & GB

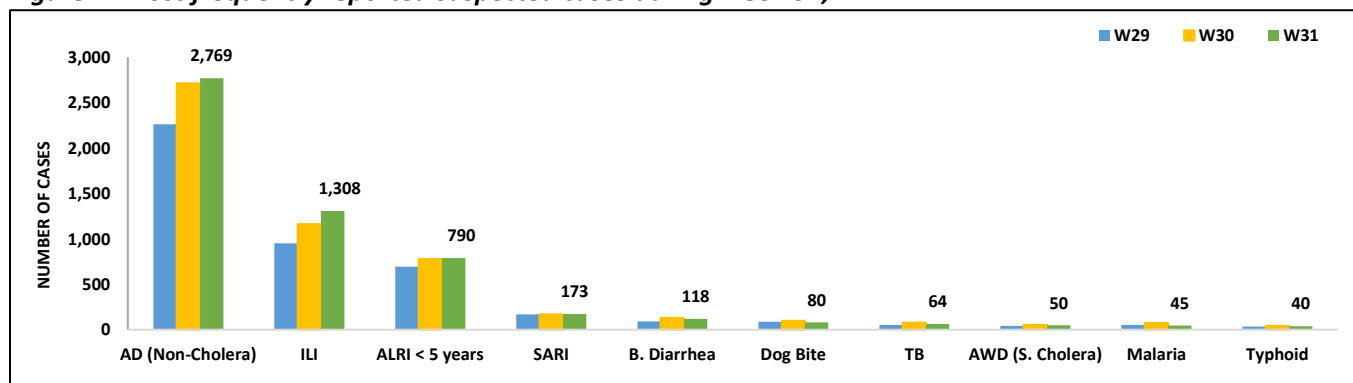
**Figure 5: Most frequently reported suspected cases during week 31, ICT**



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

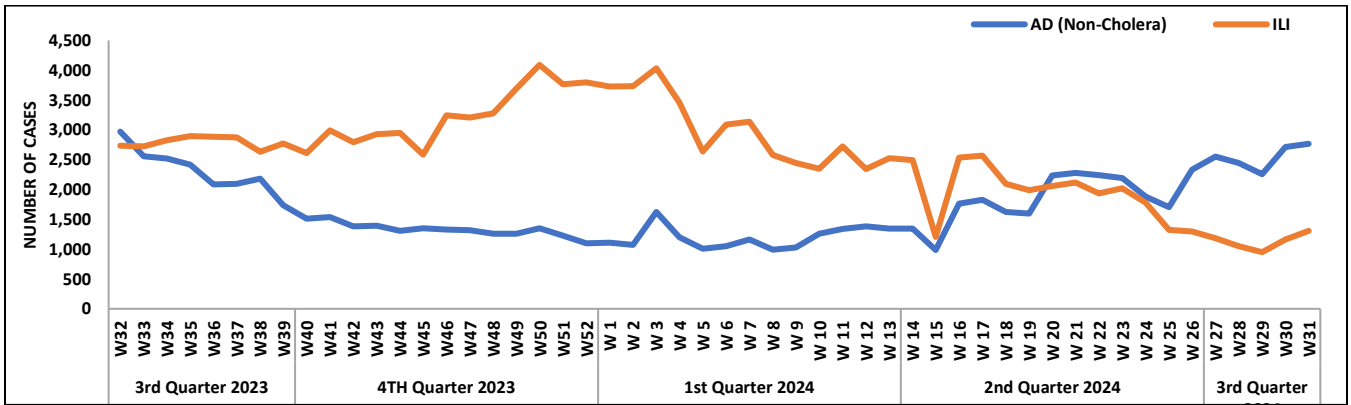


**Figure 7: Most frequently reported suspected cases during week 31, AJK**

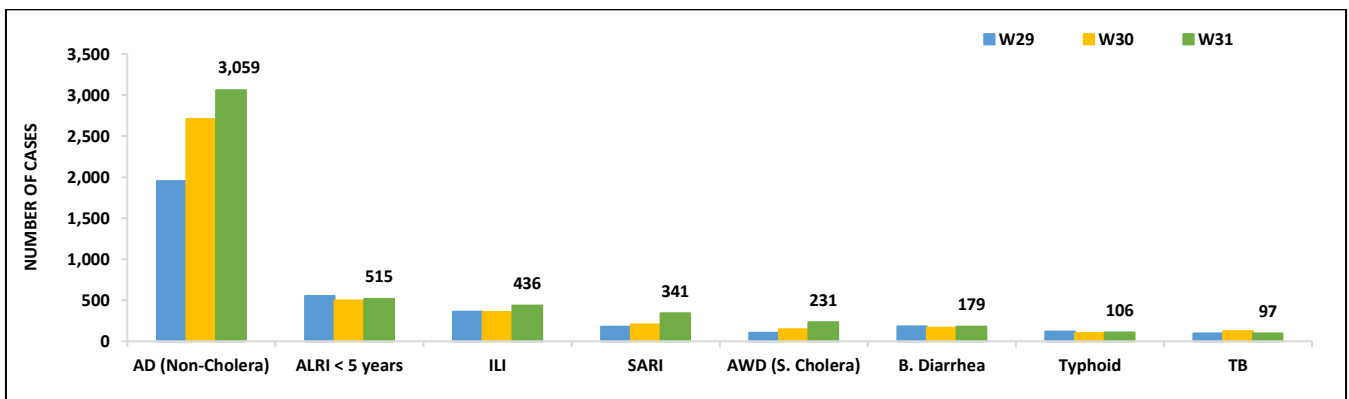




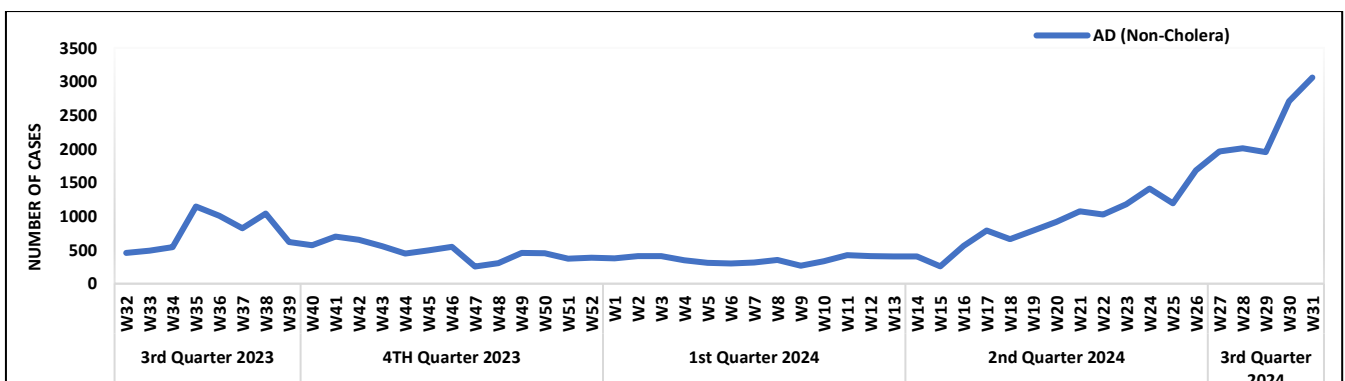
**Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK**



**Figure 9: Most frequent cases reported during Week 31, GB**

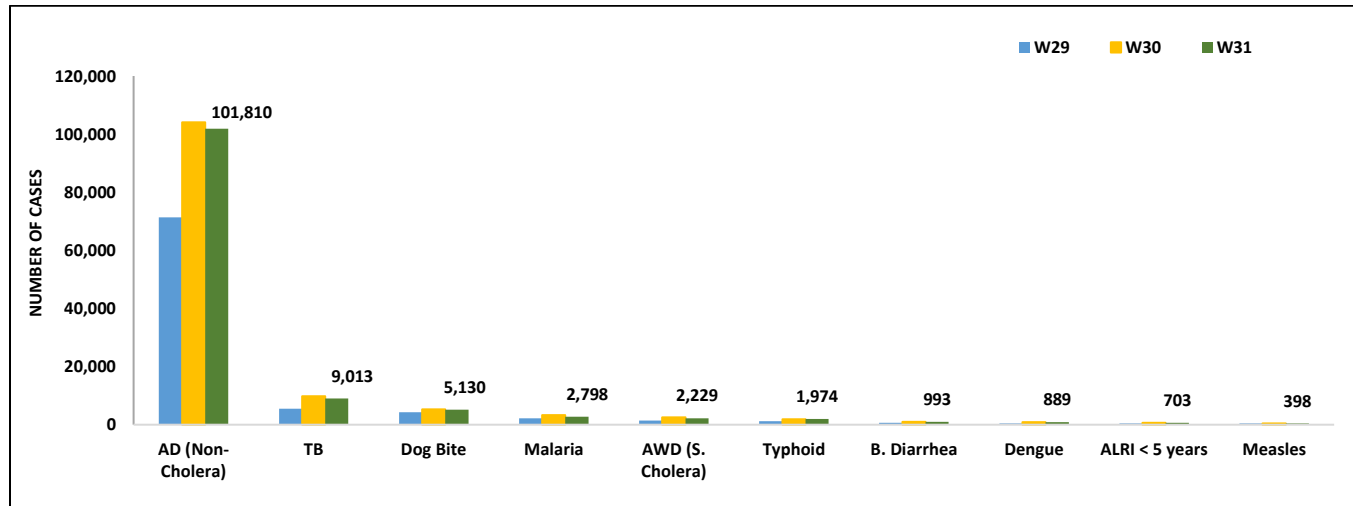


**Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB**



- AD (Non-Cholera) cases were maximum followed by TB, dog bite, Malaria, AWD (S. Cholera), Typhoid, B. Diarrhea, Dengue, ALRI<5 Years and Measles cases.
- AD (Non-Cholera), TB, dog bite, Malaria, AWD (S. Cholera), Typhoid, B. Diarrhea, Dengue, ALRI<5 Years and Measles cases showed a decreasing trend this week.
- Eight cases of AFP, Four suspected cases of HIV/ AIDS and Two suspected cases of CCHF reported from Punjab. Field investigation required to verify the cases.

**Figure 11: Most frequently reported suspected cases during week 31, Punjab.**



**Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 31**

| Diseases               | Sindh      |                | Balochistan |                | KPK        |                | ISL        |                | GB         |                |
|------------------------|------------|----------------|-------------|----------------|------------|----------------|------------|----------------|------------|----------------|
|                        | Total Test | Total Positive | Total Test  | Total Positive | Total Test | Total Positive | Total Test | Total Positive | Total Test | Total Positive |
| AWD (S. Cholera)       | 12         | 0              | -           | -              | 18         | 2              | -          | -              | -          | -              |
| AD (Non-Cholera)       | 110        | 0              | -           | -              | -          | -              | -          | -              | -          | -              |
| Malaria                | 1,869      | 93             | -           | -              | -          | -              | -          | -              | -          | -              |
| CCHF                   | -          | -              | 34          | 1              | 1          | 1              | 3          | 1              | -          | -              |
| Dengue                 | 555        | 17             | -           | -              | -          | -              | 7          | 0              | -          | -              |
| VH (B)                 | 3,048      | 67             | 0           | 0              | -          | -              | -          | -              | 30         | 13             |
| VH (C)                 | 3,184      | 230            | 170         | 58             | -          | -              | -          | -              | -          | -              |
| VH (A&E)               | 25         | 0              | 60          | 0              | 2          | 0              | -          | -              | -          | -              |
| Covid-19               | -          | -              | 27          | 0              | 1          | 0              | 1          | 0              | 35         | 0              |
| HIV                    | 190        | 0              | -           | -              | 2          | 0              | -          | -              | -          | -              |
| Influenza A            | 0          | 0              | 0           | 0              | 1          | 0              | 40         | 1              | 0          | 0              |
| TB                     | 36         | 1              | -           | -              | -          | -              | -          | -              | -          | -              |
| Syphilis               | 165        | 0              | -           | -              | -          | -              | -          | -              | -          | -              |
| Typhoid                | 499        | 4              | -           | -              | -          | -              | -          | -              | -          | -              |
| Diphtheria (Probabale) | -          | -              | -           | -              | -          | -              | -          | -              | -          | -              |
| Pertussis              | -          | -              | -           | -              | -          | -              | -          | -              | -          | -              |

# IDSR Reports Compliance

- Out OF 158 IDSR implemented districts, compliance is low from KP and Balochistan districts. Green color showing >50% compliance while red color is <50% compliance

**Table 6: IDSR reporting districts Week 31, 2024**

| Provinces/Regions  | Districts              | Total Number of Reporting Sites | Number of Reported Sites for current week | Compliance Rate (%) |
|--------------------|------------------------|---------------------------------|---|---------------------|
| Khyber Pakhtunkhwa | Abbottabad             | 111                             | 104                                       | 94%                 |
|                    | Bannu                  | 239                             | 132                                       | 55%                 |
|                    | Battagram              | 63                              | 13  | 21%                 |
|                    | Buner                  | 34                              | 29  | 85%                 |
|                    | Bajaur                 | 44                              | 35  | 80%                 |
|                    | Charsadda              | 59                              | 55  | 93%                 |
|                    | Chitral Upper          | 34                              | 27  | 79%                 |
|                    | Chitral Lower          | 35                              | 33  | 94%                 |
|                    | D.I. Khan              | 114                             | 105                                       | 92%                 |
|                    | Dir Lower              | 74                              | 74  | 100%                |
|                    | Dir Upper              | 53                              | 43  | 81%                 |
|                    | Hangu                  | 22                              | 17  | 77%                 |
|                    | Haripur                | 72                              | 64  | 89%                 |
|                    | Karak                  | 35                              | 35  | 100%                |
|                    | Khyber                 | 52                              | 20  | 38%                 |
|                    | Kohat                  | 61                              | 61  | 100%                |
|                    | Kohistan Lower         | 11                              | 11  | 100%                |
|                    | Kohistan Upper         | 20                              | 20  | 100%                |
|                    | Kolai Palas            | 10                              | 10  | 100%                |
|                    | Lakki Marwat           | 70                              | 70  | 100%                |
|                    | Lower & Central Kurram | 42                              | 22  | 52%                 |
|                    | Upper Kurram           | 41                              | 36  | 88%                 |
|                    | Malakand               | 42                              | 33  | 79%                 |
|                    | Mansehra               | 136                             | 95  | 70%                 |
|                    | Mardan                 | 80                              | 75  | 94%                 |
|                    | Nowshera               | 55                              | 51  | 93%                 |
|                    | North Waziristan       | 12                              | 3   | 25%                 |
|                    | Peshawar               | 151                             | 107                                       | 71%                 |
|                    | Shangla                | 37                              | 35  | 95%                 |
|                    | Swabi                  | 63                              | 60  | 95%                 |
|                    | Swat                   | 77                              | 73  | 95%                 |
|                    | South Waziristan       | 134                             | 55  | 41%                 |
|                    | Tank                   | 34                              | 30  | 88%                 |
|                    | Torghar                | 14                              | 13  | 93%                 |
| Mohmand            | 86                     | 39                              | 45%                                       |                     |
| SD Peshawar        | 5                      | 1                               | 20%                                       |                     |
| SD Tank            | 58                     | 6                               | 10%                                       |                     |
| Orakzai            | 68                     | 15                              | 22%                                       |                     |
| Balochistan        | Mirpur                 | 36                              | 36  | 100%                |
|                    | Bhimber                | 20                              | 20  | 100%                |
|                    | Kotli                  | 60                              | 60  | 100%                |
|                    | Muzaffarabad           | 45                              | 45  | 100%                |



|                                    |                 |    |      |      |
|------------------------------------|-----------------|----|------|------|
| <b>Azad Jammu Kashmir</b>          | Poonch          | 46 | 46   | 100% |
|                                    | Haveli          | 39 | 39   | 100% |
|                                    | Bagh            | 40 | 39   | 98%  |
|                                    | Neelum          | 39 | 39   | 100% |
|                                    | Jhelum Vellay   | 29 | 29   | 100% |
|                                    | Sudhnooti       | 27 | 27   | 100% |
| <b>Islamabad Capital Territory</b> | ICT             | 21 | 21   | 100% |
|                                    | CDA             | 15 | 8    | 53%  |
| <b>Balochistan</b>                 | Gwadar          | 25 | 0    | 0%   |
|                                    | Kech            | 44 | 0    | 0%   |
|                                    | Khuzdar         | 74 | 41   | 55%  |
|                                    | Killa Abdullah  | 26 | 17   | 65%  |
|                                    | Lasbella        | 55 | 55   | 100% |
|                                    | Pishin          | 69 | 33   | 48%  |
|                                    | Quetta          | 43 | 32   | 74%  |
|                                    | Sibi            | 36 | 34   | 94%  |
|                                    | Zhob            | 39 | 26   | 67%  |
|                                    | Jaffarabad      | 16 | 16   | 100% |
|                                    | Naserabad       | 32 | 32   | 100% |
|                                    | Kharan          | 30 | 29   | 97%  |
|                                    | Sherani         | 15 | 15   | 100% |
|                                    | Kohlu           | 75 | 53   | 71%  |
|                                    | Chagi           | 35 | 16   | 46%  |
|                                    | Kalat           | 41 | 40   | 98%  |
|                                    | Harnai          | 17 | 16   | 94%  |
|                                    | Kachhi (Bolan)  | 35 | 35   | 100% |
|                                    | Jhal Magsi      | 26 | 26   | 100% |
|                                    | Sohbat pur      | 25 | 25   | 100% |
|                                    | Surab           | 32 | 32   | 100% |
|                                    | Mastung         | 45 | 45   | 100% |
|                                    | Loralai         | 33 | 31   | 94%  |
|                                    | Killa Saifullah | 28 | 27   | 96%  |
|                                    | Ziarat          | 29 | 0    | 0%   |
|                                    | Duki            | 31 | 0    | 0%   |
|                                    | Nushki          | 32 | 29   | 91%  |
|                                    | Dera Bugti      | 45 | 30   | 67%  |
|                                    | Washuk          | 46 | 33   | 72%  |
|                                    | Panjgur         | 38 | 0    | 0%   |
|                                    | Awaran          | 23 | 3    | 13%  |
|                                    | Chaman          | 25 | 0    | 0%   |
| Barkhan                            | 20              | 20 | 100% |      |
| Hub                                | 33              | 29 | 88%  |      |
| Musakhel                           | 41              | 6  | 15%  |      |
| Usta Muhammad                      | 34              | 34 | 100% |      |
| <b>Gilgit Baltistan</b>            | Hunza           | 32 | 32   | 100% |
|                                    | Nagar           | 20 | 20   | 100% |
|                                    | Ghizer          | 40 | 40   | 100% |
|                                    | Gilgit          | 40 | 39   | 98%  |



|       |                     |     |     |      |
|-------|---------------------|-----|-----|------|
|       | Diامر               | 62  | 62  | 100% |
|       | Astore              | 54  | 54  | 100% |
|       | Shigar              | 27  | 27  | 100% |
|       | Skardu              | 52  | 52  | 100% |
|       | Ganche              | 29  | 29  | 100% |
|       | Kharmang            | 18  | 18  | 100% |
| Sindh | Hyderabad           | 73  | 57  | 78%  |
|       | Ghotki              | 64  | 63  | 98%  |
|       | Umerkot             | 43  | 43  | 100% |
|       | Naushahro Feroze    | 107 | 86  | 80%  |
|       | Tharparkar          | 282 | 239 | 85%  |
|       | Shikarpur           | 59  | 59  | 100% |
|       | Thatta              | 52  | 52  | 100% |
|       | Larkana             | 67  | 67  | 100% |
|       | Kamber Shadadkot    | 71  | 71  | 100% |
|       | Karachi-East        | 23  | 17  | 74%  |
|       | Karachi-West        | 20  | 20  | 100% |
|       | Karachi-Malir       | 37  | 37  | 100% |
|       | Karachi-Kemari      | 18  | 11  | 61%  |
|       | Karachi-Central     | 11  | 9   | 82%  |
|       | Karachi-Korangi     | 18  | 18  | 100% |
|       | Karachi-South       | 4   | 4   | 100% |
|       | Sujawal             | 54  | 53  | 98%  |
|       | Mirpur Khas         | 106 | 102 | 96%  |
|       | Badin               | 124 | 121 | 98%  |
|       | Sukkur              | 63  | 63  | 100% |
|       | Dadu                | 88  | 87  | 99%  |
|       | Sanghar             | 100 | 100 | 100% |
|       | Jacobabad           | 44  | 44  | 100% |
|       | Khairpur            | 169 | 167 | 99%  |
|       | Kashmore            | 59  | 59  | 100% |
|       | Matiari             | 42  | 40  | 95%  |
|       | Jamshoro            | 70  | 70  | 100% |
|       | Tando Allahyar      | 54  | 54  | 100% |
|       | Tando Muhammad Khan | 40  | 40  | 100% |
|       | Shaheed Benazirabad | 122 | 122 | 100% |

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## Polio Outbreak Intensifies in Balochistan, Pakistan

A concerning upsurge in polio cases has been observed across Pakistan, with a particularly acute concentration in the province of Balochistan. The recent confirmation of polio infections in Killa Saifullah and Killa Abdullah districts underscores the urgent need for a robust and sustained polio vaccination program nationwide.

In Killa Saifullah, a tragic case involving a twenty-month-old girl who developed paralysis and subsequently succumbed to the disease marks the first occurrence of polio in the district since 2020. Similarly, an eleven-month-old infant in Killa Abdullah has been paralyzed by the virus.

These incidents serve as stark reminders of the persistent threat posed by polio, especially in regions historically challenged by eradication efforts. Balochistan has emerged as an epicenter of the current outbreak, with eleven of the fourteen polio cases reported nationwide this year occurring within its borders. Killa Abdullah district has been particularly affected, accounting for five cases, while Sindh and Punjab have reported two and one cases respectively.

In response to this escalating crisis, authorities have implemented emergency measures including targeted vaccination campaigns in high-risk areas. Concurrently, efforts are underway to strengthen routine immunization services and enhance surveillance to facilitate the rapid detection of new cases.

The public is urged to cooperate fully with healthcare workers during vaccination campaigns to

ensure that all children under five receive the necessary protection. Routine immunization is essential to prevent the spread of polio and safeguard vulnerable children from the devastating consequences of this disease.

Parents and caregivers must prioritize child immunization and remain vigilant for signs of paralysis, an early indicator of polio. Prompt reporting of suspected cases is crucial for timely intervention and to prevent further transmission of the virus.

The government, in collaboration with health partners, is committed to eradicating polio from Pakistan. However, sustained and concerted efforts, coupled with strong community engagement, are indispensable for achieving this goal.

## United Front Against AMR: Pakistan Refines National Action Plan

The recent provincial consultative workshop organized by the National Institutes of Health (NIH), Islamabad, in collaboration with the World Health Organization (WHO), DAI and the Fleming Fund marks a significant step towards combating the growing threat of antimicrobial resistance (AMR). The gathering of experts from the human, animal, and environmental health sectors to refine the National Action Plan (NAP 2.0) underscores the recognition of AMR as a complex, multi-sectoral challenge.

AMR poses a grave threat to global health, food security, and economic development. By bringing together key stakeholders, the workshop aimed to strengthen the NAP, ensuring its alignment with provincial priorities and its effective implementation across the country. A comprehensive

and coordinated approach is essential to address this pressing issue.

It is imperative that the refined NAP prioritizes surveillance, stewardship, research, and community engagement. Robust surveillance systems will enable early detection of AMR trends, while antimicrobial stewardship programs will promote the judicious use of antibiotics. Research and development of new antimicrobials and alternative treatment strategies are crucial to stay ahead of resistant pathogens. Finally, engaging communities in promoting antibiotic awareness and responsible use is vital to combat AMR at the grassroots level.

The success of the NAP depends on sustained commitment and collaboration among all stakeholders. By working together, Pakistan can effectively address the challenge of AMR and safeguard the health of its citizens.

## Notes from field activities

### Monitoring of Larval Control Activities and Dengue Surveillance in UC 87 Chak Jalal Din, Rawalpindi Aug, 2024

*Dr. Jawad Zahid  
DDSRU, Rawalpindi*

#### Introduction

A field visit was conducted on August 1, 2024, in UC 87 Chak Jalal Din, Rawalpindi, to assess the progress of larval control activities and conduct dengue surveillance. The primary objectives of the visit were:

- To evaluate the effectiveness of ongoing larval control measures implemented to mitigate mosquito populations.
- To inspect the premises and residential areas to identify potential mosquito breeding sites.
- To reinforce the importance of thorough surveillance and appropriate larval eradication techniques among field teams.

#### Methodology

The field activity encompassed a comprehensive inspection of the designated area, with a particular focus on residential premises. This involved a meticulous examination of potential mosquito breeding sites, including but not limited to water storage containers, drains, and stagnant water bodies. Concurrent with this, the team observed larval control operations in progress to assess the extent to which established protocols were being adhered to. To gain insights into the knowledge and practical application of these protocols, interactions with field staff were conducted through interviews and observations.

#### Findings

Larval control teams exhibited exceptional efficiency in locating and eliminating potential mosquito breeding sites during the inspection. The majority of residential and commercial premises assessed were free of mosquito larvae, indicating effective prevention efforts by residents and businesses. However, several stagnant water bodies in the surrounding area were identified as potential breeding grounds for mosquitoes, necessitating targeted intervention.

A thorough examination of the residential areas revealed no evidence of mosquito breeding. This finding suggests that the households had implemented adequate preventive measures to eliminate potential breeding sites, contributing to the control of mosquito populations.

Field teams demonstrated a comprehensive understanding of surveillance protocols and larval control techniques. Their dedication to public health was evident in their thoroughness and efficiency throughout the inspection process.

#### Recommendations

Based on the findings of the field visit, the following recommendations are proposed:

- Sustain the current pace of larval control activities to maintain a decline in mosquito populations.



- Implement targeted measures to address the identified stagnant water bodies, such as drainage or larvicide application.
- Continue community engagement and awareness campaigns to promote preventive behaviors and early symptom detection of dengue.
- Conduct regular refresher training for field staff to enhance their skills and knowledge.

## Conclusion

The field activity in UC 87 Chak Jalal Din was successful in assessing the progress of larval control efforts and dengue surveillance. The observed commitment of field teams and the overall positive findings are encouraging. By implementing the recommended actions, the district can further strengthen its vector control program and reduce the risk of dengue transmission.

## Breastfeeding Week: Rawalpindi Launches Breastfeeding Campaign to Combat Cancer in Mothers

**Dr. Asif Arbab Niazi**  
CEO, DHA  
Rawalpindi

The Rawalpindi District Health Authority (DHA) is set to launch a week-long campaign aimed at highlighting the multifaceted benefits of breastfeeding. This year's initiative to promote breastfeeding takes on added significance in light of the surge in breast cancer cases. By encouraging breastfeeding, the campaign aims to not only protect infant health but also contribute to the prevention of this devastating disease among women.

Breast cancer is a leading cause of cancer-related deaths globally. While numerous factors contribute to breast cancer development, research suggests a potential protective role for breastfeeding. Studies indicate that women who breastfeed have a reduced risk of developing breast cancer compared to

those who do not. This protective effect appears to be more pronounced for certain types of invasive breast cancer.

The Punjab Primary and Secondary Healthcare Department has extended its support to the breastfeeding campaign, with Dr. Asif Arbab, Chief Executive Officer, officially launched the initiative. In a statement of endorsement, Dr. Arbab emphasized the importance of breastfeeding, stating, "Breastfeeding is a natural and beneficial practice for both mother and child. I urge all mothers to embrace breastfeeding as a cornerstone of their child's health."

Dr. Naveed Akhter Malik, the coordinator of the maternal and child health program at the DHA, emphasized the dual advantages of breastfeeding. "Not only does breastfeeding nourish infants, but it also shields mothers from chronic diseases such as breast and ovarian cancer, as well as type 2 diabetes,"

The campaign will be implemented across all seven Tehsils of Rawalpindi, with educational sessions conducted at basic health units (BHUs), rural health centers, and teaching hospitals. These sessions will equip mothers with essential knowledge about breastfeeding techniques and its numerous benefits. Recognizing the challenges faced by working mothers, the DHA is collaborating with both government and private sectors to establish daycare centers that provide a supportive environment for breastfeeding.

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*Dr. Asif underscored the campaign's objective, stating, "Our goal is to create an environment that makes breastfeeding as convenient and accessible as possible for mothers." This aligns with the DHA's broader mission of improving maternal and child health outcomes in Rawalpindi.*

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This comprehensive campaign represents a significant step forward in addressing the rise in cancer cases among Pakistani women. By promoting breastfeeding and providing necessary support





structures, the DHA aims to create a healthier future for both mothers and children in Rawalpindi.

## Commentary

### Breastfeeding: A Lifesaver Against Infant Diarrhea in Pakistan

**Dr. Maryam Tanveer**  
*Scientific Officer, NIH,*  
*Islamabad*

#### Introduction

Diarrhea, characterized by loose, watery stools occurring three or more times daily, is classified into acute, persistent, or chronic forms. Acute diarrhea can be watery or bloody, caused by different pathogens like *Vibrio Cholerae* and *Campylobacter*, respectively. It's common in children, especially infants, who may normally have 3-10 loose stools daily. A frequency increase to twice the normal number is considered diarrhea. (WHO, 2024)

Diarrhea causes significant mortality, with 2,195 child deaths daily, surpassing deaths from malaria, AIDS, and measles combined. Annually, 801,000 children die from diarrhea, accounting for 1 in 9 child deaths globally (Iddrisu I, 2021). It also hinders nutrient absorption, contributing to malnutrition and growth retardation in children under 5. The leading cause of acute diarrhea in children is viral infection, particularly rotavirus, responsible for 40% of hospitalizations in children under 5. Other causes include bacterial infections, insufficient breastfeeding, contaminated water, antibiotic use, and parasitic infections.

Pakistan is grappling with a severe acute watery diarrhea (AWD) epidemic, particularly among infants and young children. Despite constituting just 15% of the population, children under five years bear a disproportionate burden of disease, accounting for half of all diarrhea-related deaths in the country (Saeed R, Hashmi I., 2021). The true scale of the crisis remains obscured by gaps in disease surveillance and data collection. Alarming, Pakistan has a higher

infant mortality rate due to diarrhea in Asia, and globally ranks 23rd in childhood deaths from diarrheal illnesses, with nearly 6.4 million pediatric cases annually (World Health Organization, 2024). A critical contributing factor to this crisis is the insufficient uptake of breastfeeding.

Breastfeeding is universally acknowledged as the optimal source of nutrition for infants. It not only fosters healthy growth and development but also enhances the infant's immune system. Numerous studies have established that infants who are breastfed are less susceptible to infections and diseases, including AWD and gastroenteritis, commonly known as stomach flu. Breast milk contains essential antibodies and nutrients that bolster the infant's immune system, providing a protective barrier against pathogens that cause diarrhea.

This commentary explores the association between breastfeeding practices and the prevalence of AWD in infants, highlighting the significant impact of breastfeeding on infant health and the urgent need for increased awareness and support for breastfeeding mothers in Pakistan.

#### Breastfeeding: A Natural Defense Against AWD

Breast milk is a complex biological fluid that offers unparalleled nutrition and protection for infants. Its ability to mitigate the risk of acute watery diarrhea (AWD) is attributed to several key components:

##### 1. Immunoglobulins (IgA):

These are antibodies, specialized proteins produced by the mother's immune system, which are transferred directly to the infant through breast milk. Secretory IgA (sIgA) is the most abundant immunoglobulin in breast milk and plays a critical role in protecting the infant's gut lining. It acts by:

- Binding to pathogens (disease-causing organisms) like viruses and bacteria, preventing them from attaching to the intestinal wall and causing infection.



- Neutralizing toxins produced by some pathogens, reducing the severity of diarrhea.
- Stimulating the infant's immune system to develop its own defenses against future infections.

## 2. Bifidobacterium:

These are "friendly" bacteria that naturally colonize the infant's gut. Breast milk acts as a prebiotic, promoting the growth and activity of these beneficial bacteria. Bifidobacteria contribute to gut health by:

- Producing lactic acid, which creates a slightly acidic environment in the gut, inhibiting the growth of harmful bacteria that can cause AWD.
- Competing with harmful bacteria for nutrients and attachment sites in the gut.
- Helping to regulate the immune system and reduce inflammation in the gut.

## 3. Anti-inflammatory Properties:

Breast milk contains various components with anti-inflammatory properties, including cytokines, lactoferrin, and secretory leukocyte protease inhibitor (SLPI). These substances help to reduce inflammation in the gut, which is a hallmark symptom of AWD. By mitigating inflammation, breast milk can lessen the severity of diarrhea and promote faster healing of the intestinal lining. (<https://www.nature.com/articles/pr19992272>)

## 4. Oligosaccharides:

These are complex sugars found in breast milk that are not digested by the infant. However, they serve as a prebiotic food source for the beneficial gut bacteria like Bifidobacteria. Oligosaccharides promote the growth and activity of these friendly bacteria, ultimately contributing to gut health and protection against AWD.

In conclusion, breast milk offers a multi-layered defense against AWD through its unique combination of immunoglobulins, beneficial bacteria, anti-inflammatory properties, and prebiotics. By promoting exclusive breastfeeding during the first six months of life, mothers can provide their infants with

a natural and effective defense against this potentially life-threatening illness.

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*Breast milk is widely recognized as the optimal source of nutrition for infants during the first six months of life. Beyond providing essential nutrients for growth and development, breast milk also acts as a natural defense system, bolstering the infant's immature immune system and offering protection against various infectious diseases, including acute watery diarrhea (AWD).*

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## Current Breastfeeding Practices in Pakistan

Despite the well-documented benefits of breastfeeding, only 37% of Pakistani women exclusively breastfeed their infants for the recommended six months. This low rate of exclusive breastfeeding is alarming, given the strong correlation between breastfeeding and reduced incidences of AWD. Infants who are not breastfed are at a 165% increased risk of experiencing diarrheal episodes compared to those who are exclusively breastfed. The disparity in health outcomes is stark; non-breastfed infants are 15 times more likely to succumb to diarrhea than their breastfed counterparts. (Burki T., 2014).

## Factors Influencing Breastfeeding Rates

Several socio-cultural, economic, and educational factors contribute to the low rates of breastfeeding in Pakistan. Traditional beliefs and misconceptions about breastfeeding, such as the notion that formula milk is more nutritious or a sign of modernity, often deter mothers from exclusively breastfeeding their infants. Additionally, a significant lack of proper knowledge and support from both family members and healthcare providers further impedes exclusive breastfeeding practices.

The economic necessity for women to return to work shortly after childbirth, coupled with

inadequate maternity leave policies and the absence of workplace lactation support, forces many mothers to resort to formula feeding. Gender disparities and limited economic opportunities for women exacerbate the situation, as they often lack the autonomy and resources to make informed decisions about their children's nutrition. Furthermore, societal norms that prioritize male decision-making in household matters may limit a woman's ability to breastfeed.

Addressing these multifaceted barriers requires comprehensive strategies that include public health education campaigns, supportive workplace policies, and the empowerment of women through economic and social reforms. By tackling these issues, Pakistan can improve breastfeeding rates and, consequently, the health and well-being of its children.

## The Need for Awareness and Empowerment

Addressing the high prevalence of acute watery diarrhea (AWD) among infants in Pakistan necessitates a multifaceted approach. Raising awareness about the critical importance of exclusive breastfeeding for the first six months of life is paramount. Health education campaigns targeting expectant and new mothers, as well as their families, can play a significant role in dispelling myths and promoting breastfeeding practices. These campaigns should be culturally sensitive and accessible, utilizing various media platforms and community outreach to ensure widespread reach and impact.

Moreover, empowering women through education and economic opportunities is crucial. Bridging gender gaps and supporting women's entrepreneurship can provide mothers with the financial stability and confidence needed to prioritize their children's health. Education initiatives should focus not only on literacy but also on providing women with the knowledge and skills to make informed health decisions. Economic empowerment can be facilitated through microfinance programs, vocational training, and policies that support work-life

balance, such as extended maternity leave and workplace lactation facilities.

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*Exclusive breastfeeding, coupled with maternal education, support, and empowerment, is crucial. Community-based initiatives and supportive environments are essential to sustain breastfeeding practices and improve child health outcomes.*

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Community-based programs that offer breastfeeding support and counseling can also help mothers overcome challenges and sustain exclusive breastfeeding for the recommended duration. These programs can include peer support groups, one-on-one counseling from trained lactation consultants, and the establishment of breastfeeding-friendly environments in public spaces and workplaces. By combining awareness-raising efforts with empowerment initiatives, Pakistan can create a supportive environment that enables mothers to breastfeed exclusively, thereby reducing the incidence of AWD and improving overall child health outcomes.

## Conclusion

The association between breastfeeding and reduced incidences of acute watery diarrhea in infants is unequivocal. In Pakistan, the low rates of exclusive breastfeeding contribute significantly to the high prevalence of AWD among infants. To mitigate this public health issue, it is imperative to enhance breastfeeding practices through targeted awareness campaigns and by empowering women with education and economic opportunities. By supporting breastfeeding mothers, we can ensure better health outcomes for infants, ultimately reducing the burden of diarrheal diseases and improving the overall well-being of future generations



## Knowledge Hub

### Acute Flaccid Paralysis

Acute flaccid paralysis (AFP) is a sudden onset of weakness or paralysis in the arms or legs. It is a clinical syndrome, which means that it is a collection of signs and symptoms. AFP is not a diagnosis, but rather a description of the symptoms that a person may experience. There are many causes of AFP, including:

- Polio
- Guillain-Barre syndrome (GBS)
- Vaccine-derived polio virus (VDPV)
- Non-polio enterovirus
- Adenovirus
- Acute West Nile virus
- Campylobacter sp.
- Transverse myelitis
- Peripheral neuropathy
- Acute non-bacterial meningitis
- Tick paralysis
- Brain abscess

In countries where polio has been eradicated, most cases of AFP are caused by these non-polio causes. However, it is important to investigate all cases of AFP thoroughly to rule out polio. In countries where polio is still a problem, AFP can be a sign of a polio outbreak. This is why it is important to do surveillance for AFP in all countries, even in those where polio has been eradicated.

Surveillance for AFP is done by looking for cases of acute onset of weakness or paralysis in children under the age of 15 years. If a case of AFP is identified, it is investigated thoroughly to determine the cause. If the cause is not polio, the case is classified as a non-polio AFP case.

Surveillance for AFP is an important part of the global effort to eradicate polio. By monitoring cases of AFP, we can identify polio outbreaks early and take steps to contain them. This helps to protect children from this devastating disease.

### What is polio?

Polio is a highly contagious disease that can cause paralysis or death. It is caused by a virus that can spread through contact with the saliva or stool of an infected person. Polio can affect people of all ages, but it is most dangerous for children under the age of 5. There is no cure for polio, but it can be prevented with vaccination. The polio vaccine is safe and effective, and it is the best way to protect your child from this devastating disease.

### What is Guillain-Barre syndrome (GBS)?

Guillain-Barre syndrome (GBS) is a rare disorder that affects the nerves in the peripheral nervous system. It can cause a rapid onset of weakness or paralysis, usually in the legs and then spreading to the arms and face. In severe cases, GBS can be fatal. The cause of GBS is unknown, but it is thought to be triggered by an infection, such as the flu or a cold. GBS is not contagious. There is no cure for GBS, but most people make a full recovery. Treatment is aimed at managing the symptoms and preventing complications.

### What is vaccine-derived polio virus (VDPV)?

Vaccine-derived polio virus (VDPV) is a type of polio virus that can occur when the live polio vaccine mutates. VDPV can spread from person to person, just like wild polio virus. However, VDPV is much less likely to cause paralysis than wild polio virus. VDPV is most likely to occur in countries with low vaccination rates. This is because the vaccine does not provide lifelong immunity to polio. People who are not vaccinated or who have not received a booster dose of the vaccine are at risk of getting VDPV.

Acute flaccid paralysis (AFP) is a serious condition that can have a devastating impact on children. However, it is a preventable disease. By getting vaccinated, you can help to protect your child from AFP and other serious diseases.



## Understanding Polio

Understanding the nature of polio is crucial for effective prevention. The poliovirus spreads primarily through contaminated water and poor sanitation. Once infected, a person may experience mild flu-like symptoms or no symptoms at all, but they can still spread the virus to others. In severe cases, the virus attacks the nervous system, leading to paralysis.

## The Consequences of Polio

The consequences of polio are far-reaching. Not only does it cause immense physical suffering for individuals, but it also has a devastating impact on families and communities. Paralysis can lead to lifelong disabilities, limiting a person's ability to work, attend school, and participate fully in society. Moreover, the economic burden of caring for polio-affected individuals can be overwhelming for families.

## The Path to Eradication

To eradicate polio, a multifaceted approach is essential. Vaccination remains the most effective tool in preventing the spread of the disease. It is crucial for parents to ensure that their children receive all recommended polio doses according to the national immunization schedule. Regular vaccination campaigns and supplementary immunization activities play a vital role in achieving herd immunity, protecting both vaccinated and unvaccinated individuals.

Beyond vaccination, improving sanitation and hygiene practices is essential. Washing hands with soap and water, especially after using the toilet and before handling food, can significantly reduce the risk of polio transmission. Ensuring access to clean drinking water and proper sanitation facilities is equally important.

## Community Engagement and Awareness

Community awareness and engagement are key to successful polio eradication efforts. Spreading accurate information about polio, its symptoms, and

prevention methods can help dispel myths and misconceptions. Encouraging people to seek medical attention immediately if they suspect symptoms of polio is crucial for early detection and containment.

## A Shared Responsibility

The government, health authorities, and international organizations must work collaboratively to eliminate polio. This includes strengthening surveillance systems to monitor the spread of the virus, ensuring equitable access to healthcare services, and addressing security challenges in high-risk areas. Eradicating polio is a shared responsibility. By understanding the disease, getting vaccinated, practicing good hygiene, and supporting eradication efforts, we can create a polio-free future for ourselves and generations to come.

Let's unite in our commitment to a polio-free Pakistan.

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*Eradicating polio necessitates a combined approach of robust vaccination and improved sanitation. Routine immunization, including supplementary campaigns, is crucial for achieving herd immunity. Alongside this, prioritizing clean water access and promoting hygienic practices, especially handwashing, is essential to break the poliovirus transmission cycle..*

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FOR A NEW TOMORROW  
FOR A NEW BEGINNING

# LET'S MAKE PAKISTAN POLIO FREE



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