



## WEEKLY FIELD EPIDEMIOLOGY REPORT

Volume 2-- Issue 02 Jan 27 – Feb 02, 2020

Date: February 12, 2020

Provincial Technical Officers and fellows of FELTP assigned at the Disease Surveillance, Response Units (DSRU's) are working with provincial, and district health authorities on event based disease surveillance and outbreak response.

DSRUs are sharing the disease surveillance data, outbreak reports and activities of FELTP fellows to the Federal Disease Surveillance and Response Unit (FDSRU) at the Field Epidemiology and Disease Surveillance Division (FEDSD) National Institute of Health (NIH) Islamabad on weekly basis.

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Table-1: Weekly and Cumulative Diseases Updates Feb 02, 2020

	Disease	Total Cases in 2019	Jan 13 – 19, 2020	Total Cases in 2020
1	CCHF	75	0	01
2	Varicella	1,264	40	76
3	Dengue	24,547	10	106
4	Chikungunya	0	0	0
5	Measles	6,781	69	292
6	Diphtheria	614	11	59
7	Suspected / confirmed Seasonal Influenza	100	0	0

Table 2: Dengue cases reported in 2017, 2018, month-wise distribution in 2019 & current week (All provinces and regions)

Month	KPK	Sindh	AJK	ICT	TDs - KP	Baluch	Punjab	Total
Jan-Dec 2017	18,857	2,884	6	120	406	86	579	22,938
Jan-Dec 2018	332	2088	1	0	175	69	539	3204
Jan-Dec 2019	5214	2937	506	2847	1484	2841	8826	24547
Total	24403	7909	513	2967	2065	3057	9944	50750
02 Feb, 2020	0	0	0	0	0	10	0	10
Total (2020)	0	0	0	0	0	106	0	106

**Influenza Suspected/Confirmed:** In 2018, total 3221 and in 2019 total 100 Suspected/confirmed Influenza cases reported from PDSRUs/RDSRUs. In week 05 no new-suspected cases.

**Diphtheria Surveillance:** During 2018 total **464** and during 2019 total **614**-suspected cases of Diphtheria were reported. In week 05, **11** new-suspected case reported.

### Dengue Surveillance:

In 2018, total **3204** Dengue cases reported from Sindh while in 2019 total **24,599** cases reported which includes current week **10** new case from District Gawader, while no new cases reported from Punjab, KP Merged Areas, ICT, KP, Sindh and AJK.

### CCHF Surveillance:

In 2018, total **63** CCHF (suspected and confirmed) cases were reported from DSRUs and **75** cases have been reported in 2019. No new case reported in this week.

### Extensive Drug Resistant/Multi Drug Resistant-Typhoid Fever Surveillance, Sindh

From November 1, 2016 to Feb 02, 2020, total **22354** Typhoid Fever cases reported from different districts of Sindh province. Out of these **15717** cases found as Extensive Drug Resistant Typhoid cases.

Table 3: Reported XDR Typhoid Fever cases in Sindh by year (Nov 2016 – Feb, 02, 2020)

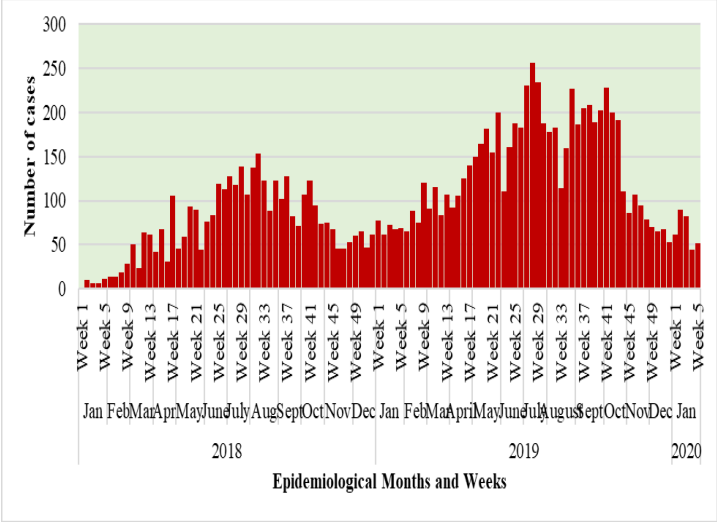
Year	Karachi	Hyderabad	Other Districts	Sindh Total
2016	0	12	0	12
2017	175	485	4	664
2018	3,712	891	207	4,810
2019	7,292	1674	1028	9,994
Total 2016-2019	11,028	3033	1223	1,5284
2020 (Jan 1-26)	329	64	40	433

### Update on Extensive Drug Resistant Typhoid Fever Karachi:

Total 16,730 lab confirmed Typhoid cases reported from ten hospitals of Karachi. Out of these 11,357 recorded as Extensive Drug Resistant (XDR) Typhoid Fever cases from January 1, 2017 to Feb 02, 2020.

In the week-05 (Jan 27-Feb,02,2020), total 52 new XDR/MDR Typhoid Fever cases reported from different hospitals in Karachi.

**Fig 1: Week wise number of XDR Typhoid fever cases in Karachi, 1st January 2018 to Feb, 02, 2020 (Week 05)**



Following cases, definitions were applied to categorize the Typhoid cases reported:

**Non Resistant typhoid fever:**

It is defined as Typhoid fever caused by Salmonella Typhi or Salmonella Paratyphi A, B or C strains, which are sensitive to first and second line drugs (ampicillin, chloramphenicol, trimethoprim-sulfamethoxazole, cefixime and ceftriaxone). Any isolate sensitive to first line drugs but resistant to fluoroquinolone group will also be considered as Non-Resistant typhoid.

**Multi-Drug Resistant (MDR) Typhoid fever:**

It is defined as Typhoid fever caused by Salmonella Typhi or Salmonella Paratyphi A, B or C strains which are resistant to the first line recommended drugs for treatment such as chloramphenicol, ampicillin and trimethoprim-sulfamethoxazole. The strain may be sensitive or resistant to fluoroquinolone group.

**Extensive Drug Resistant (XDR) Typhoid fever:**

It is defined as typhoid fever caused by Salmonella typhi strain which are resistant to first line drugs, fluoroquinolones and third-generation cephalosporin (Ceftriaxone)

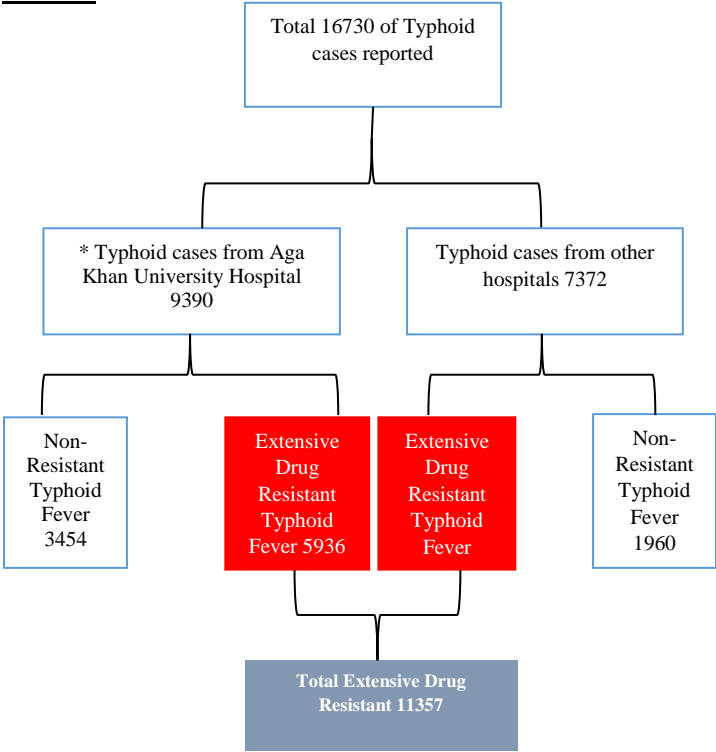
The Technical Support Officer and the FELTP fellows of the Regional DSRU Karachi reached out to the major hospitals in the city and collected the Typhoid data from hospitals in whatever form it is available. They segregated and analyzed the data for the Drug resistance pattern. The XDR Typhoid cases were reported mostly among the children and maximum number 4666 (41%) of the XDR cases were reported in the 0-4 years age group.

The overall attack rate was 56/100,000 population. Highest attack rate was found in 0-4 year’s age group i.e.171/100,000

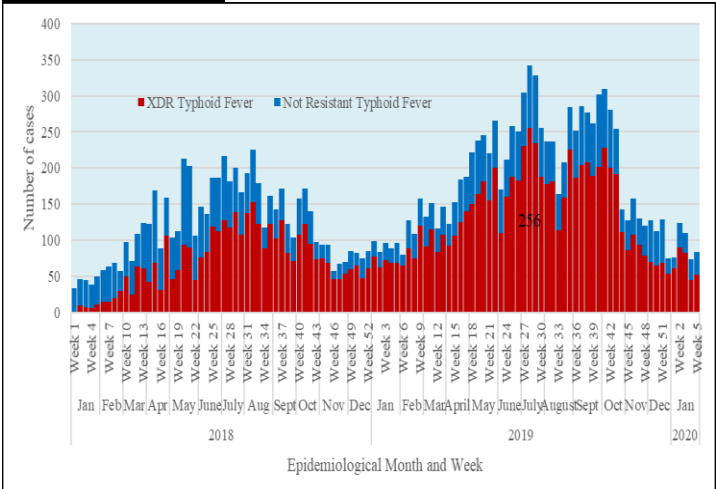
**Table 4: Age and Gender distribution of XDR Typhoid fever cases Karachi, January 1, 2017 to Feb 02, 2020**

Age Group	XDR Typhoid	Attack rate / 100,000
0-4 Year	4666	171
5-9 Year	3375	125
10-14 Year	1415	58
15-19 Year	720	32
20-24 Year	491	25
25-29 Year	294	18
30-34 Year	127	10
35-39 Year	60	6
40-44 Year	52	6
45-49 Year	45	6
50-54 Year	38	7
55-59 Year	24	4
60-64 Year	22	5
>65	19	2
Total	11357	56
Gender		
Male	4600	45
Female	6748	68

**Fig 2: Number of XDR and drug sensitive Typhoid fever cases reported from January 1, 2017 to Feb.02, 2020 in Karachi**



**Fig 3:Time distribution of XDR and Non-Resistant Typhoid Fever cases reported from January 1, 2018 – Feb 02, 2020 in Karachi**

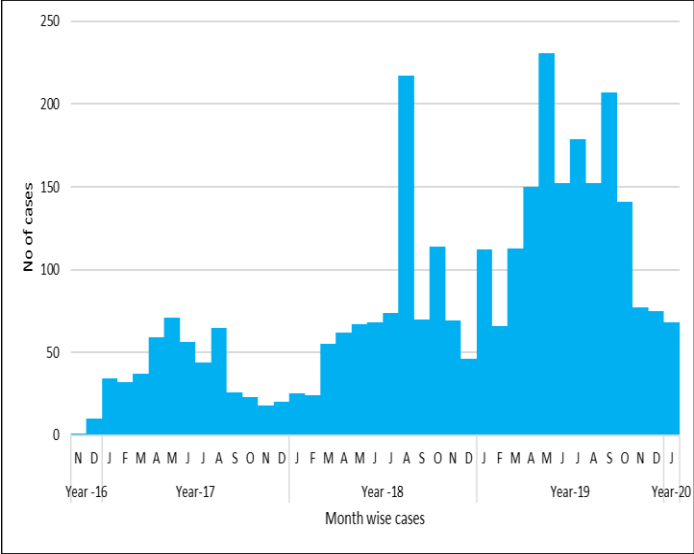


**Update on Extensive Drug Resistant Typhoid Fever - District Hyderabad**

The PDSRU Hyderabad at DGHS Sindh, Hyderabad is following up for the XDR/MDR Typhoid cases in District Hyderabad.

Total 5592 Salmonella Typhoid cases reported from the November 2016 to Feb 02, 2020 from different districts of Sindh province excluding Karachi. Among them n=4,367 ware of Extensive Drug Resistant cases. Among the total Extensive Drug resistance cases; n=3110 (71.3%) XDR-cases are from District Hyderabad

**Fig 4: XDR Typhoid cases reported by month from District Hyderabad Nov 2016 Feb 02, 2020**

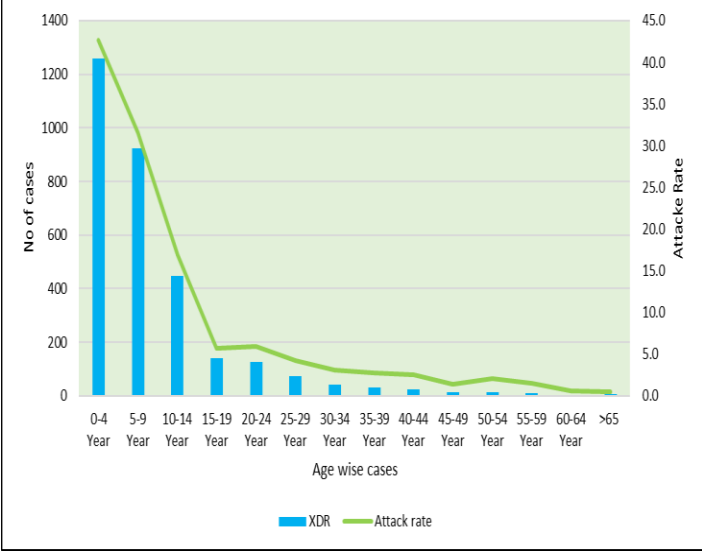


The most affected age group was 0 to 4 years with attack rate 42.6 per/10000 population followed by 5-9 years of age group with 31.6/ 10000 population. Over all attack rate is n=3110 with 14.2 /10000 population

**Actions Taken**

Mass immunization with Polysaccharide vaccination was done through child survival program to the eligible children and conjugate typhoid vaccine campaign was carried out in affected areas of district and until date total about 02 lakh and 10 thousands children from the age of 6 Months to 10 years have been vaccinated in Hyderabad

**Fig.5: Age specific attack rates XDR Typhoid reported from District Hyderabad**



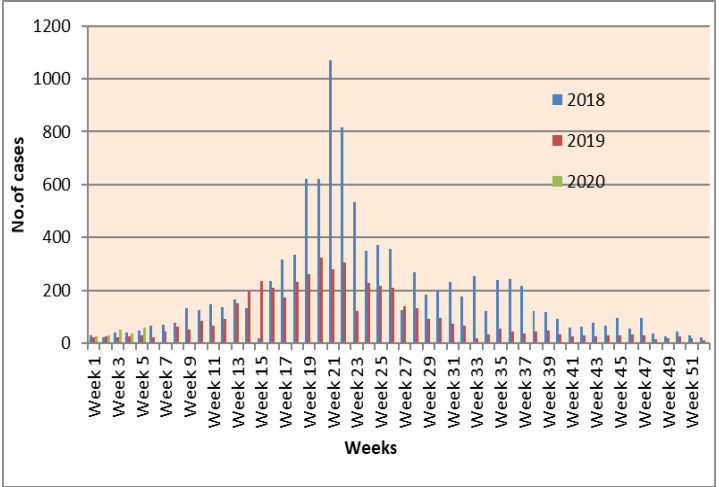
**Table 5: District wise (excluding Karachi) total Typhoid and XDR Typhoid cases in Sindh (Nov 2016 - Feb 02, 2020)**

S No:	Name of District	Total Typhoid cases	No of XDR cases	% XDR cases
1	Hyderabad	4010	3110	77.5
2	Tando Alha Yar	24	18	75
3	Badin	157	116	73.9
4	Dadu	52	42	80.7
5	Kashmore	66	58	87.9
6	Ghotki	58	47	81
7	Mirpurkhas	379	299	78.9
8	Sukkur	105	86	82
9	Tharparkar	25	18	72
10	Sanghar	148	126	85
11	Nau sheroferoz	58	46	79.3
12	Shikarpur	46	40	87
13	Tando M Khan	3	3	100
14	Jamshsoro	259	207	80
15	Umar Kot	7	5	71.4
16	Jacobabad	14	13	92.8
17	SBA	19	1	5.3
18	Larkana	70	58	82.8
19	Sujawal	11	5	45.4
20	Matiori	4	3	75
21	Thatha	14	13	92.8
22	Khairpur	63	53	84
	Total	5592	4367	78.1

**Update Measles Surveillance Report Punjab:**

The PDSRU Punjab is regularly assisting with data analysis and information sharing with the health department officials. During 2018 a total 10137-suspected Measles cases were reported while 4902 cases in 2019. The highest number of suspected Measles cases (n=1072) was recorded during the week 21, 2018 and week 20 (n=323) in 2019. Total 57 new cases of suspected Measles reported in week 05, 2020

**Fig 6: Week-wise distribution of suspected Measles Cases- Punjab (up to Week-5, 2020)**



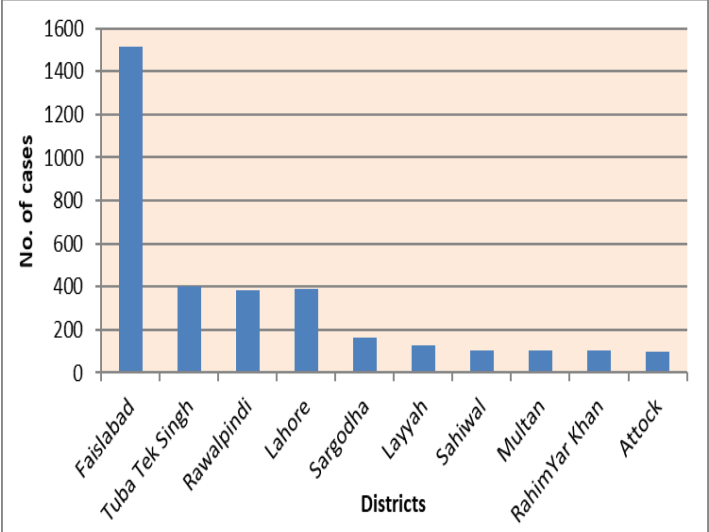
**Update /Follow-up Varicella Surveillance in Punjab:**

High attack rate is observed in children aged 5-9 yrs. (11) followed by 0-4 yrs. age group (8) while lowest (01) in adults aged 35 yrs. and above per 100,000  
The highest number of cases were reported from District Faisalabad. The cases are mostly from two locations (Thandiwallia and Jaharanwalla) in Faisalabad District

Table 6: Age specific attack rates of Varicella in Punjab in 2018- up to Feb 02, 2020

Age Group	Total Cases	AR/100,000
0-4 Yrs	1224	8
5-9 Yrs	1644	11
10-14 Yrs	776	6
15-19 Yrs	315	3
20-24 Yrs	245	2
25-29 Yrs	168	2
30-34 Yrs	143	2
35-Above	250	1
Total	4765	4

Fig7. District-wise Suspected Chickenpox Cases, from 1st Jan 2018 to February 02, 2020



**PDSRU KP- Disease Surveillance and Outbreak Updates**  
**Diphtheria Surveillance**

In previous week a 12 months male child reported as Diphtheria case from lady reading hospital. In current week no suspected or probable case reported across the province.

**Neo-natal Tetanus Surveillance**

After two NNT cases reported from district D I Khan, in current week one case each reported from districts Bunner and Shangla.

**Update on Dengue surveillance District Gwadar Baluchistan, 2020**

A total of 106 dengue cases have been identified in 2020. During current epi week 5, twenty (10) new cases of dengue were reported in District Gwadar. The mean age of dengue cases was 26 years with age range 5 year to 60 years. The male to female ratio was about 1.4:1. Majority of cases 59.4% (n=63) were among age group 16-30 years, followed by 22.6% (n=24) among 31-45 years age group while 12.2% (n=13) were among, 1-15 years of age group. The overall attack rate was 3.71/10000 Population

**Gender Distribution:**

Among the total 106 cases, males 58% (n=62) were more affected than female 42% (n=44)

Table-7: Age wise distribution of dengue cases

(Years)	No. of Cases	%	Pop	Attack Rate/10000 Pop
< 1-15	13	12.2	112256	1.15
16-30	63	59.4	73283	8.59
31-45	24	22.6	41424	5.79
46-60	6	5.6	25323	2.36
61-75	1	00.9	11331	0.88

Fig.8: Gender distribution of dengue cases District Gawader January 1- Feb 02, 2020

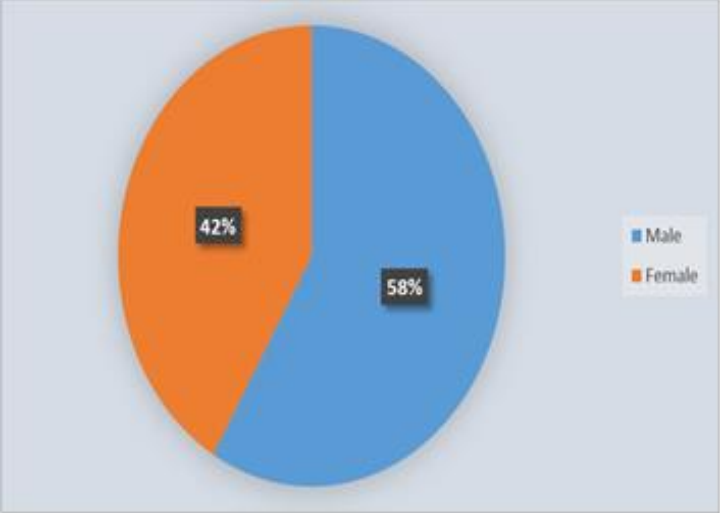
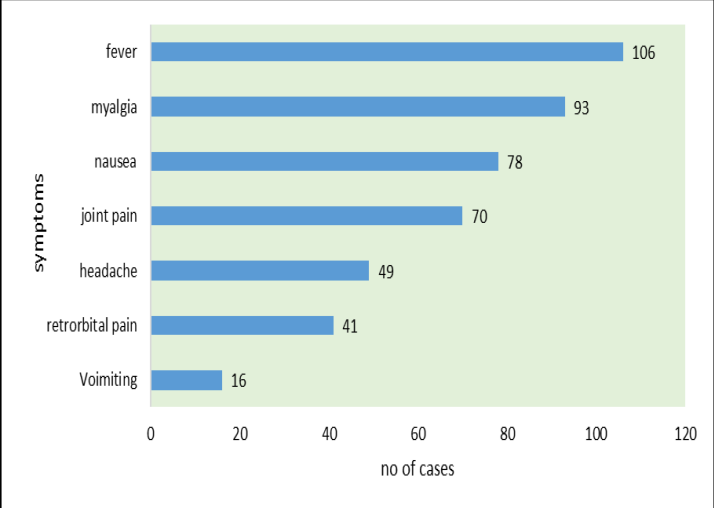


Fig.9: Frequency of Sign/Symptoms of reported cases District Gawader January 1- Feb,02, 2020



**Distribution of Cases by Date of Diagnosis**

Fig. 10: Date of diagnosis of cases

