

# UKRAINE VACCINE-DERIVED POLIOVIRUS TYPE 2 OUTBREAK

Situation Report # 7

19 November 2021



## SUMMARY

### Summary:

Outbreak confirmation: 6 October 2021

Grade: 2 (12/10/21)

cVDPV2 cases reported this week: 0

### Most recent virus isolation:

Source: Community Contact

Location: Zakarpattia

Date of onset/collection: 11 October 2021

### Sources of cVDPV2 isolation to date:

Rivne Oblast, Rivne Rayon:

1 AFP case

7 household contacts (siblings)

6 community contacts (schoolmates)

Zakarpattia Oblast, Irshavskiyi Rayon, Brid village:

4 community contacts

4 Latrines and 2 wells in Brid village

### Index case (EPID: UKR-5621007):

Source: AFP case

Oblast: Rivne

Rayon: Rivne

Onset of paralysis: 3 September 2021,

Age: 17 months

Sex: Female

Vaccination status: 0 dose

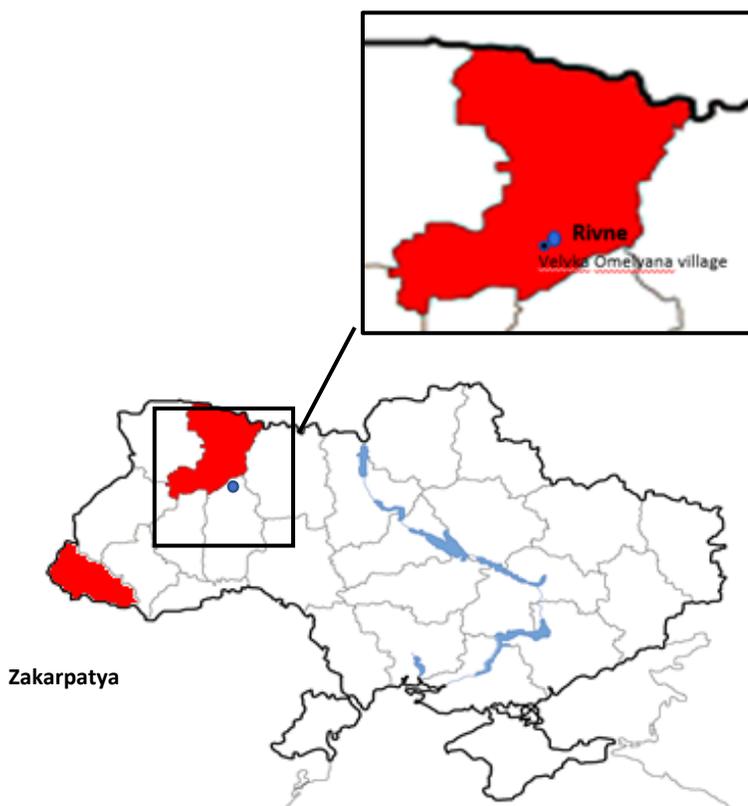


Figure 1: Location of specimens positive for cVDPV2, Ukraine, 18 Nov 2021e

## KEY HIGHLIGHTS

- On 6 October 2021 a cVDPV2 outbreak was confirmed in Ukraine. As of 18 November 2021, testing for cVDPV2 in specimens collected among contacts of the index case has been completed. A total of 18 individuals resident in two oblasts (Rivne and Zakarpattia) had positive isolation of cVDPV2 in stool specimens; all specimens closely related. In Rivne province, cVDPV2 was isolated in the index AFP case,

7 household contacts (siblings) and 6 community contacts (schoolmates). In Zakarpattia province cVDPV2 was isolated in samples from 4 children (cousins with had had contact with the siblings of the AFP case). Genetic sequencing has demonstrated that the cVDPV2 is linked with the PAK-GB-1 emergence and the closest match was to an environmental sample from Dushanbe, Tajikistan.

- The cVDPV2 outbreak has been declared as a public health emergency in Rivne and Zakarpattia. WHO has internally graded the outbreak as level 2.
- GPEI experts worked with experts from the Ukraine Public Health Center (UPHC) in the development of a unified strategy to respond to the outbreak. The roadmap was presented to the VPI Task Force under facilitated by the Deputy Minister of Health on November 17. The following decisions were reached during the meeting:
  - a) Strengthen AFP and environmental surveillance nationally
  - b) Implement a rapid response with Inactivated poliovirus vaccine (IPV) among unvaccinated children 6 months to 6 years of age to mitigate risk of paralysis.
  - c) Begin preparations for two nation-wide campaigns rounds with a type 2 oral poliovirus vaccine (OPV2) to be conducted around February-March 2022.
  - d) Continue development of advocacy and communication messaging aligned with the immunization response to ensure the highest vaccination acceptance
- A training for residents of the Field Epidemiology Training Program (FETP) was conducted during November 15-17 by GPEI and UPHC experts (the total of 30 participants). After the training FETP members will visit several regions considered at high risk, to conduct an assessment of gaps in AFP and environmental surveillance for poliovirus.
- Experts from the GPEI are working together with experts from the Ukraine Public Health Center (UPHC) in the development of an Outbreak Response Action Plan.

## SITUATION UPDATE

### Key findings from field investigations and laboratory results

<i>Location</i>	Rivne Oblast, Omelyana Village
<i>Clinical history</i>	17 months, female, with 0 doses of polio vaccines, and no history of travel On August 28 developed high fever (38.5 C) followed by weakness in lower limbs on 03/09/2021 The AFP case has 9 siblings , none of which were vaccinated Family belongs to Christians Baptist Religion among whom there are high rates of vaccine refusal.
<i>Travel history</i>	3 siblings traveled to Brid Village at Zakarpattia oblast during June-August 2021 to stay with grandmother (5-10 years of age). Possibly attended summer camp for children of same religious affiliation that hosts 300 children from different areas of Ukraine and other countries. Upon return from Zakarpattia at the end of August, the siblings developed fever and gastrointestinal / respiratory symptoms, which resolved before the youngest child became sick and developed AFP.

<p><i>Assessment of community circulation in Rivne oblast .</i></p>	<p>On 7 September and 6 October 2021 public health officials visited Velyka village in Rivne for a case investigation. During the investigation stool specimens were collected from 9 siblings, 17 unvaccinated classmates of the siblings and 3 samples from the environment (unclear specific source). cVDPV2 was isolated in specimens from 7 siblings and 6 classmates.</p>
<p><i>Assessment of community circulation in Zakarpattia oblast</i></p>	<p>On 6 October 2021 public health officials visited Brid village in Zakarpattia (total population 2,700), where the siblings of the index case had been staying at their grandmother’s house. During their visit the siblings played with their cousins living in the village and may have attended a religious summer camp for children located in a forest at 2-3 km from the village. The camp runs from mid-June to late-August, and hosts 150 to 300 children for 2-3 week.</p> <p>Because of community refusal to collaborate in the investigation, the officials only collected specimens from 4 children, who are cousins of the index case and had been playing with the siblings during their visit in Zakarpattia.</p> <p>Because the village does not have convergent water supply or sewage, the officials collected samples from latrine pits and wells located at a summer camp, village school, village nursery, and households of aunt and grandmother’s neighbor and from.</p> <p>cVDPV2 was isolated in specimens from the 4 cousins and in some samples from latrine pits and wells.</p> <p>During the investigation, it was reported that a Roma community was camped close to the village.</p>

## **OUTBREAK RESPONSE**

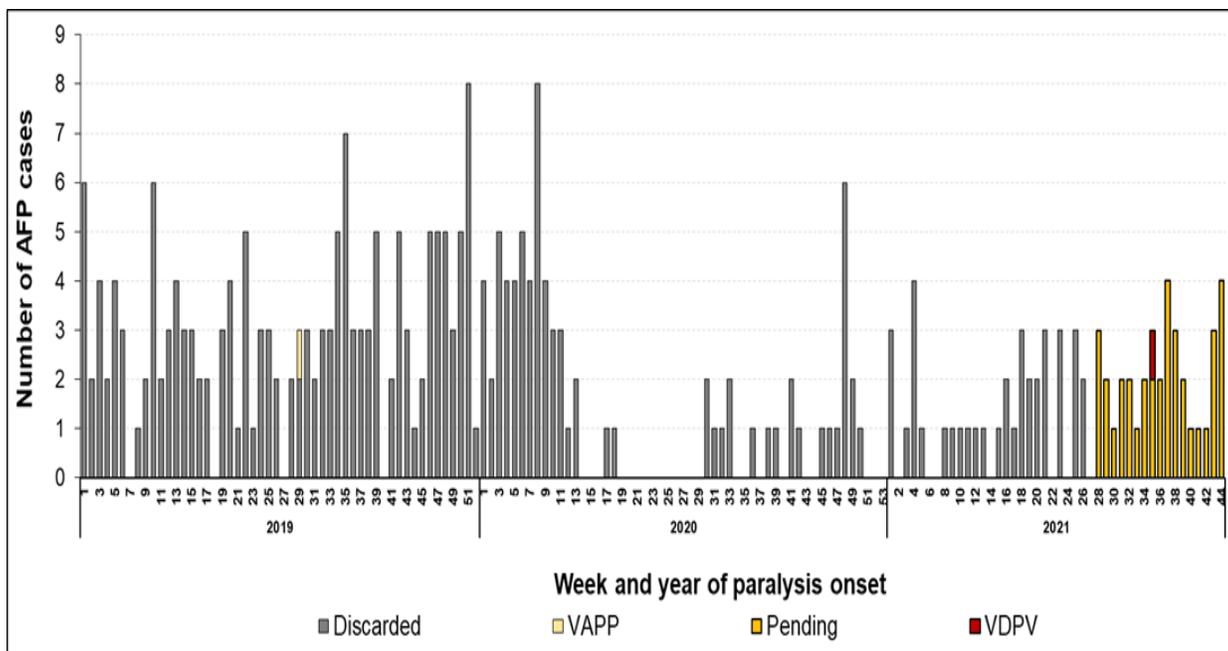
### **Coordination and planning:**

- Country level coordination is ongoing between Ministry of Health Public Health Center, and GPEI partners including WHO, UNICEF and CDC-Atlanta.
- The Global Polio Eradication Initiative (GPEI) provided initial support to Ukraine with deployment of RRT to support initial OBR activities (WHO, UNICEF, CDC), no regret funds for initial response activities was also released. Additional measures and vaccination response options are under discussion
- The risk assessment is under preparation with final laboratory results and response proposal.

## Surveillance:

- As of 15 November 2021, a total of 79 AFP cases have been reported, with only one positive isolation of cVDPV2 in Rivne oblast. Of the 78 non-polio AFP cases, 27 cases are pending classification by the Expert Review Committee (although all cases have adequate specimens). The annualized non-polio AFP for 2021 is only 0.8 excluding pending cases.
- Reporting of AFP cases has decreased significantly during 2020 and 2021 as shown on the figure.
- Efforts to strengthen poliovirus surveillance across Ukraine have been initiated. A training for residents of the Field Epidemiology Training Program (FETP) was conducted during November 15-17 by experts from GPEI and UPHC (Ukrainian Public Health Center) coordinating enhancement of surveillance in the country. After the training FETP members will visit several regions considered at high risk, to conduct an assessment of gaps in AFP and environmental surveillance for poliovirus. This assessment will guide future interventions to enhance surveillance for poliovirus in the country.
- GPEI experts are working with the epidemiologists at the National UPHC in updating technical guidelines for AFP surveillance and environmental surveillance for poliovirus, and in an action plan to enhance both surveillance systems throughout the country.

**Figure 1- Epi Curve of all Non-Polio Acute Flaccid Paralysis (NP-AFP) cases, 2019-2021**



## Immunization:

- Date of tOPV withdrawal -: 18 Apr 2016 and bOPV was introduced later in 2016
- Date of IPV introduction: 2011, nationwide
- Current POL RI schedule: IPV – 2 and 4 m, bOPV – 6 and 18 m, 6 and 14 yr
- Last SIA – tOPV national, Feb 2016
- The estimated coverage of the nationwide IPV: national 2020 – 85% IPV1, 82.5% IPV2 (Figure 7)

- POL3 coverage Rivne: 2020 – 83%, Jan- Aug 2021 – 48.9% (Figure 8)
- POL3 coverage Zakarpattya: 2020 – 70.7%, Jan-Aug 2021 – 41.3%; IPV- 2020- IPV1- 82%, IPV2- 77%, Jan-Sept 2021- IPV1 - 49%, IPV2 – 48%

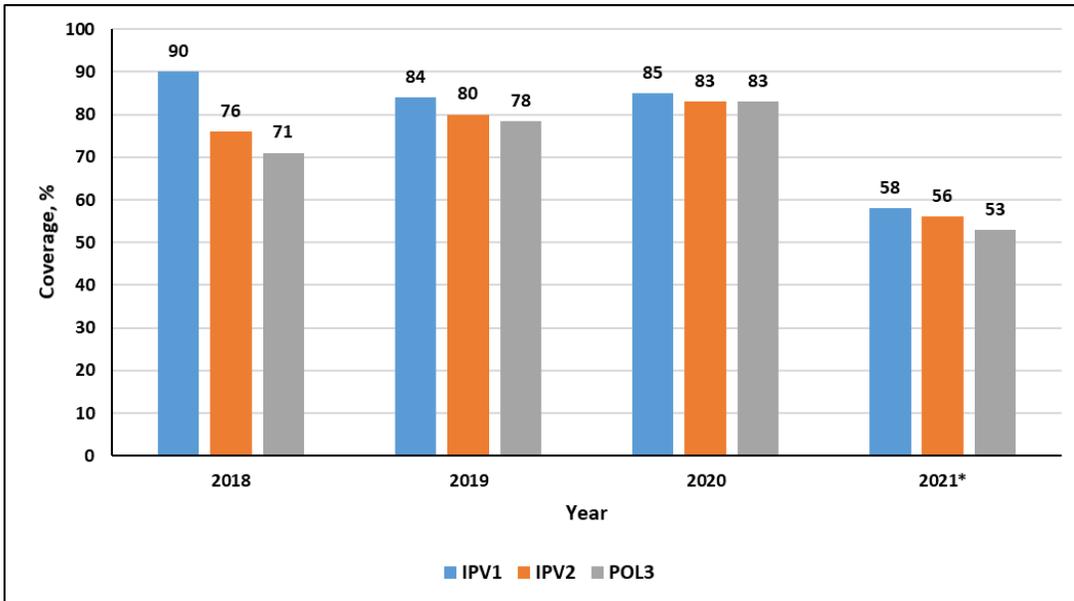


Figure 7: Ukraine National IPV1, IPV2 and POL3 Coverage, 2018-2021

\*2021 data as of 1<sup>st</sup> September

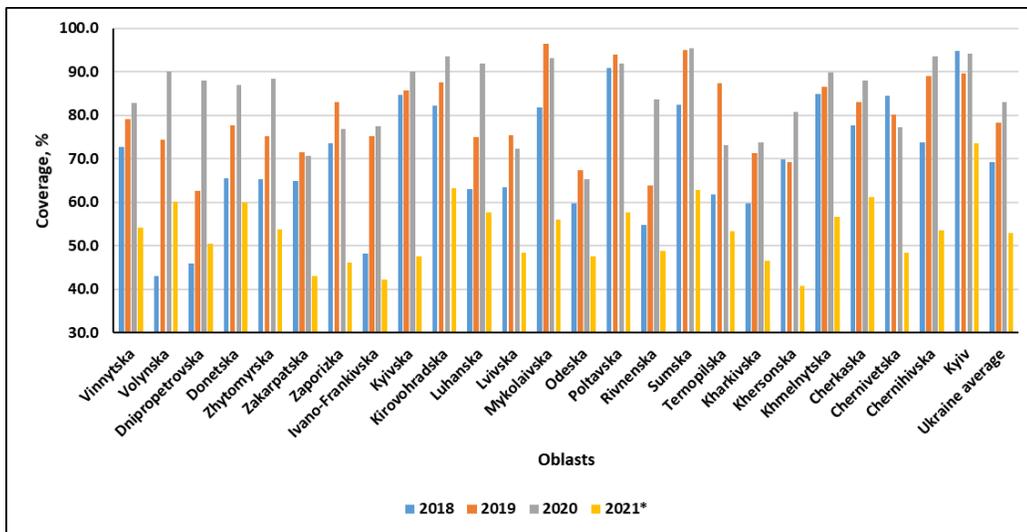


Figure 8: Province level POL3 Coverage, Ukraine, 2018-2021

\*2021 data as of 1<sup>st</sup> September

- **A local IPV immunization activity in Rivne** started on 11 October to be continued through 22 October. IPV non-selective vaccination activity was conducted for all children under 5 years of age in the affected community. In the period 11-18.10.2021 the volume of additional vaccinations was increased by 35.4%

- Out of 243 children that required vaccination, 86 children received a dose of polio vaccine, 48 refused vaccination and 109 had temporary medical contraindication for vaccination

### *Advocacy & Communication:*

- UNICEF is conducting social listening and media monitoring on polio specific topic from the date of the case confirmation
- The level of media coverage and social media mentions on the outbreak has started decreasing. In the past days the media coverage focused on the official MOH communication, while individual media continued following up on the situation in Rivne region, including on the progress of vaccination catch-up there. 69 outlets reported on the MOH statement on the strengthening of immunoprophylaxis from 21 October 2021
- Local media outlets in western Ukraine also focused on the immunization rates in their communities. For the past week the social media discussion focused on comparing the immunization against polio with COVID-19 vaccination, comparing the vaccines, etc
- Less users were creating unique content and publications on the topic, while the discussion took place mostly in the comments section.
- On different days up to around 15% of the social media mentions were in the context of publications about “legal advice” on what to do in case one is being forced to get vaccinated, including against polio
- UNICEF has led the regular meeting of the Polio Communication TWG took place on 4.11.21? and partners discussed key recommendations and activities at national and local level.
- Draft communication framework has been developed by MOH with support from UNICEF for the local authorities, and upon its finalization will be provided to both regions.
- UNICEF has developed a tool for the rapid behavioral survey on polio vaccination in two regions and national level.
- UNICEF has developed methodology, engaged research team and is rolling out risk assessment of the vulnerable groups in two affected regions.
- A draft short-term Action Plan on Communication and Demand Generation has been developed.

### *Logistics & Cold Chain:*

- National Logistics Plan (NLP) preparation is on-going
- Cold Chain Equipment Gap analysis is being updated considering OPV2, Covid, and RI vaccines
- CCL/VM team visited alternative central store candidates, UKRVAKTSINA and UKRMEDPOSTACH
- to assess store readiness
- ToR for the Polio National Logistics Working Group (NLWG-P) was finalized.
- NLWG-P met on 18 Nov to discuss NLP preparations

### *Health Emergency Context (COVID 19)*

- The COVID-19 situation continue to stabilize in majority of the regions, mortality rate is still very high with 7 day average of 661 deaths but both infection and hospitalization rate have shown a modest decline during last week. As of 18 November, 7 day average daily new infection is 17,783 compared to previous week of 20,947, a 15% reduction, while hospital bed occupancy rate dropped to 58% from 69% last week and cumulative mortality rate of 211 per 100,000 population, an increase from 196 same period last week. Vaccination coverage has picked up lately but still low, 33% with at least one dose and 25% with two doses. Adaptive quarantine measures are put in place at regional level, a total of 19 regions are in the red zone, 3 in orange and 3 yellow (Rivne and Zakarpattya in Red and Orange zone respectively)

## NEXT IMMEDIATE ACTIONS:

- Continue collaboration between GPEI and UPHC/MOH for support for Polio outbreak response at national level –
- Deliver technical field support to regional level and follow up on immediate actions
- Finalize the Outbreak Response Plan for 6 months (*including all activities: Coordination; Surveillance; Immunization Response; Communication; Logistics and Vaccine Management;*)
- Follow up on OBR Surge request for 6 months - to GPEI ORPG

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