

30 July 2024

By email: wmcq@mcguinnessinstitute.org

Dear Wendy,

Official Information Act Request: Further questions - ESR Wastewater Surveillance – variant detection dates

On 5 July 2024 you requested information under the Official Information Act 1982 (Act) from ESR as follows:

Can you provide the date that XBB.1.5 was detected in wastewater – then we can complete the table.

If you are aware of any later variants (e.g. new rows to add), please let us know. We would like the book as up to date as possible, including any 2024 detected variants.

Our response to your request:

Please refer to the table in [Appendix 1](#) below.

Our topic experts have included all the dates they have at hand in this table. They have also added information on 4 other variants that the team at ESR have started tracking since the beginning of 2024.

Please take note of the following when referring to the table below:

- Genomes from cases known to be from MIQ (using data provided to ESR for this purpose) have been filtered out. The earliest samples of a given variant may still include cases detected at the border or MIQ cases not included in data provided.
- Genomes of bad quality have been filtered out.
- The definition of a new case has changed over time (a single Episurv case number was attributed to positive samples taken less than a variable amount of days apart), this can impact the report date.
- Lineage designation can change over time with the definition of new variants and release of software and databases capable of identifying those variants. All genomes are therefore re-analysed every week by ESR. For this reason, the first sequence obtained for a given variant may predate an announcement pertaining to (or even the designation of) that variant. For this retrospective analysis, we have identified the earliest sample assigned to a given variant by either of the software tools used by ESR for lineage assignment (pangolin and NextClade). For XBB.1.5, JN.1.16 and HK.3, the earliest date differs between tools, only the earliest is presented in the table.
- The “week end date” provided here for wastewater is different from the date given in previous information (the table footnote says, “collection date of the wastewater sample”).

- The CoVarSeq assay used for ESR's Covid-19 wastewater surveillance and able to provide information on circulating variants (with limitations underlined in the table footnotes) has first been implemented in July 2023, and samples were reanalysed retrospectively up to samples taken the week ending 05/02/2023.
- This table lists the first instance of a genome belonging to one of the variants listed in the query, including its sublineages (that may or may not have been defined at the time). The 'actual lineage' column provides the current designation of the first genome identified (or two when the earliest report date, date received, or date collected correspond to more than one genome).
- Although most dates agree with those already provided, there are some differences, e.g. XDK with collection date 16/12/2023 given previously. It may be because of a new variant definition between March 2024 and now. The dates provided here represents the best data available in July 2024.

Your right to seek a review.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Thank you for your request.

Yours sincerely



**Acting ESR General Manager Health, Health & Environment
ESR**

Appendix 1: ESR Wastewater Surveillance - Variant detection dates

Alias	lineage designation	First detection in wastewater ¹	Report date ¹	Date received ¹	Date collected ¹	actual lineage (sublineage) ²
Original	oldest genome		26/02/2020	29/02/2020	27/02/2020	B.4
Alpha*	B.1.1.7		30/12/2020	5/01/2021	29/12/2020	B.1.1.7.1
Beta*	B.1.351		27/01/2021	27/01/2021	26/01/2021	B.1.351
B.1.1.317	B.1.1.317		Never detected in the community			
Delta*	B.1.617.2		21/06/2021	28/06/2021	20/06/2021	B.1.617.2.4
BA.1	B.1.1.529.1		28/12/2021	29/12/2021	27/12/2021	B.1.1.529.1.17
BA.2	B.1.1.529.2	12/02/2023	14/01/2022	16/01/2022	14/01/2022	B.1.1.529.2.10
BA.3	B.1.1.529.3		Never detected in the community			
BA.4	B.1.1.529.4	5/02/2023 [^]	8/05/2022	10/05/2022	9/05/2022	B.1.1.529.4.1 B.1.1.529.5.2.1 or B.1.1.529.5.3.1.1.4
BA.5	B.1.1.529.5	5/02/2023 [^]	17/05/2022	19/05/2022	17/05/2022	B.1.1.529.5.3.1.1.4
BA.2.75	B.1.1.529.2.75	5/02/2023	16/06/2022	16/06/2022	15/06/2022	B.1.1.529.2.75
XBB	XBB	5/02/2023	20/09/2022	22/09/2022	20/09/2022	XBB.1
CH.1.1	B.1.1.529.2.75.3.4.1.1.1.1	5/02/2023	2/10/2022	7/10/2022	5/10/2022	B.1.1.529.2.75.3.4.1.1.1.1.7
BQ.1.1	B.1.1.529.5.3.1.1.1.1.1.1		4/10/2022	6/10/2022	2/10/2022	B.1.1.529.5.3.1.1.1.1.1.1
XBC	XBC	5/02/2023	14/10/2022	19/10/2022	17/10/2022	XBC.1.4
XBB.1.5	XBB.1.5		03/12/2022	07/12/2022	05/12/2022	XBB.1.5
EG.5	XBB.1.9.2.5	16/04/2023	11/05/2023	15/05/2023	11/05/2023	XBB.1.9.2.5.2
HK.3	XBB.1.9.2.5.1.1.3	9/07/2023	2/08/2023	7/08/2023	1/08/2023	XBB.1.9.2.5.1.1.3
BA.2.86	B.1.1.529.2.86	10/09/2023	25/09/2023	3/10/2023	28/09/2023	B.1.1.529.2.86
JN.1	B.1.1.529.2.86.1.1	10/09/2023	9/10/2023	12/10/2023	9/10/2023	B.1.1.529.2.86.1.1.1

JN.1.4	B.1.1.529.2.86.1.1.4.5	ND	22/10/2023	25/10/2023	22/10/2023	B.1.1.529.2.86.1.1.4.5
XDK	XDK	ND	7/01/2024	11/01/2024	7/01/2024	XDK
JN.1.16	B.1.1.529.2.86.1.1.16	3/12/2023	16/01/2024	18/01/2024	16/01/2024	B.1.1.529.2.86.1.1.16
KP.2	B.1.1.529.2.86.1.1.11.1.2	25/02/2024	12/02/2024	15/02/2024	12/02/2024	B.1.1.529.2.86.1.1.11.1.2
KP.3	B.1.1.529.2.86.1.1.11.1.3	5/11/2023	15/03/2024	20/03/2024	14/03/2024	B.1.1.529.2.86.1.1.11.1.3.1
LB.1	B.1.1.529.2.86.1.1.9.2.1	ND	8/04/2024	16/04/2024	7/04/2024	B.1.1.529.2.86.1.1.9.2.1 or B.1.1.529.2.86.1.1.9.2.1.3

*as historically defined by WHO <https://www.who.int/publications/m/item/historical-working-definitions-and-primary-actions-for-sars-cov-2-variants>

^BA4/BA5 not differentiable from each other with ESR's CoVarSeq assay

ND = Those variants are not differentiable from JN.1 with ESR's CoVarSeq assay

¹ Date detection in wastewater = week end date for wastewater , Report date = date the associated case was reported in Episurv, Date received = date the sample was received at ESR, Date collected = date the associated sample was collected as recorded in Éclair

² The first genome detected for a given lineage may be of a sublineage. Two lineages indicate there was more than one case at the dates indicated with more than one lineage/sublineage