## Supplementary Figure 1.



## Supplementary Table 1.

Supplementary Table 1. Genome ID and GenBank accession numbers for the study samples

| VZV Genome ID | Genbank ID | VZV Clade | DOB | Rash Onset | Birthplace | R1 | R2 | R3 | 4A | R4B | R5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KPZ12-013 | MH709309 | 2 | 7/17/1942 | 1/13/2012 | Asia | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ12-034 | MH709310 | 2 | 9/22/1934 | 1/15/2012 | Asia | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ12-062 | n/a | 5 | 12/7/1945 | 2/13/2012 | United States | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-067 | n/a | 5 | 6/13/1939 | 3/1/2012 | United States | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ12-082 | n/a | 5 | 1/29/1943 | 3/3/2012 | Asia | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ12-090 | MH709311 | 2 | 9/1/1931 | 3/10/2012 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-092 | KY037796 | 2 | 1/23/1932 | 3/16/2012 | Phillipines | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-118 | n/a | 5 | 7/14/1944 | 4/3/2012 | Asia | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ12-135 | MH709312 | 9 | 6/3/1949 | 4/15/2012 | Asia | Complete | Complete | Complete | Mix | Complete | Complete |
| KPZ12-139 | MH709313 | 2 | 11/2/1949 | 4/18/2012 | Asia | Complete | Complete | nd | Complete | Complete | Complete |
| KPZ12-145 | MH709314 | 2 | 9/20/1941 | 4/19/2012 | United States | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-155 | n/a | 5 | 1/19/1952 | 5/1/2012 | United States | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-176 | MH709315 | 2 | 1/27/1929 | 5/13/2012 | United States | Mix | Complete | Complete | Complete | Complete | Complete |
| KPZ12-189 | n/a | 3 | 5/30/1940 | 5/13/2102 | Asia | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ12-198 | MH709316 | 4 | 8/17/1947 | 5/16/2012 | United States | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-212 | MH709317 | 3 | 2/16/1924 | 5/30/2012 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-216 | MH709318 | 4 | 9/10/1950 | 5/31/2012 | United States | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ12-218 | MH709319 | 2 | 2/21/1934 | 6/2/2012 | United States | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ12-232 | MH709320 | 2 | 6/20/1930 | 6/9/2012 | United States | Complete | Complete | Complete | Mix | Slight Mix | Complete |
| KPZ12-235 | MH709321 | 5 | 7/19/1944 | 6/14/2012 | Central/South America | Complete | Complete | Complete | Slight Mix | Complete | Complete |
| KPZ12-251 | MH709322 | 4 | 8/8/1932 | 6/17/2012 | United States | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ12-260 | MH709323 | 4 | 6/19/1934 | 6/25/2012 | United States | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ12-283 | MH709324 | 5 | 10/1/1946 | 7/8/2012 | Asia | Complete | Complete | Mix | Mix | Complete | Complete |
| KPZ12-320 | MH709325 | 5 | 10/15/1943 | 7/22/2012 | Central/South America | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ12-329 | MH709326 | 4 | 5/3/1938 | 7/25/2012 | United States | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ12-352 | MH709327 | 5 | 1/20/1948 | 8/14/2012 | Unknown | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ12-374 | MH709328 | 5 | 9/18/1945 | 9/1/2012 | Asia | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ12-378 | MH709329 | 2 | 6/1/1943 | 8/28/2012 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-389 | M H 709330 | 5 | 10/1/1944 | 9/11/2012 | Asia | Complete | Complete | Complete | Mix | Mix | Complete |
| VZV Genome ID | Genbank ID | VzV Clade | DOB | Rash Onset | Birthplace | R1 | R2 | R3 | R4A | R4B | R5 |
| KPZ12-403 | MH709331 | 2 | 5/5/1944 | 9/16/2012 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-404 | n/a | 2 | 9/24/1937 | 9/14/2012 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-409 | MH709332 | 5 | 7/13/1952 | 9/20/2012 | Asia | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ12-413 | n/a | 9 | 11/8/1936 | 9/20/2012 | Asia | Complete | Complete | Mix | Complete | Mix | Complete |
| KPZ12-418 | MH709333 | 2 | 4/28/1946 | 9/27/2012 | United States | Complete | Complete | Mix | Slight Mix | Complete | Complete |
| KPZ12-436 | MH709334 | 5 | 8/1/1951 | 10/7/2012 | Asia | Complete | Complete | Mix | Mix | Complete | Complete |
| KPZ12-442 | MH709335 | 5 | 1/25/1946 | 10/18/2012 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ12-444 | MH709336 | 5 | 3/13/1943 | 10/21/2012 | Asia | Complete | Complete | Mix | Mix | Complete | Complete |
| KPZ12-483 | MH709337 | 2 | 1/14/1931 | 11/8/2012 | Asia | Complete | Complete | Complete | Complete | Slight Mix | Complete |
| KPZ12-515 | KF811485 | 2 | 1/31/1944 | 11/29/2012 | United States | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ12-525 | MH709338 | 5 | 6/26/1926 | 12/6/2012 | Asia | Complete | Complete | Complete | Mix | Complete | Complete |
| KPZ13-032 | MH709339 | 2 | 5/29/1933 | 1/14/2013 | United States | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-039 | MH709340 | 5 | 4/22/1937 | 1/20/2013 | Asia | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ13-042 | M 7709341 | 4 | 2/3/1927 | 1/28/2013 | United States | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ13-043 | n/a | 4 | 4/30/1933 | 1/26/2013 | United States | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-069 | MH709342 | 5 | 1/5/1935 | 2/10/2013 | United States | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-070 | MH709343 | 5 | 1/7/1933 | 2/8/2013 | Africa | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-071 | MH709344 | 2 | 6/19/1947 | 2/9/2013 | Asia | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-078 | MH709345 | 5 | 11/15/1937 | 2/14/2013 | Asia | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-103 | MH709346 | 3 | 4/21/1949 | 2/27/2013 | United States | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-124 | KP702725 | 6 | 2/9/1925 | 3/1/2013 | United States | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ13-128 | MH709347 | 5 | 8/10/1946 | 3/13/2013 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ13-142 | MH709348 | 2 | 8/26/1923 | 3/18/2013 | United States | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ13-143 | MH709349 | 5 | 7/5/1940 | 3/19/2013 | Africa | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-150 | M H 709350 | 5 | 6/20/1951 | 3/22/2013 | Asia | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-158 | MH709351 | 5 | 5/17/1929 | 3/20/2013 | Central/South America | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ13-169 | MH709352 | 9 | 10/12/1945 | 4/3/2013 | Asia | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ13-174 | MH709353 | 5 | 11/19/1947 | 4/3/2013 | Asia | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ13-177 | MH709354 | 1 | 10/27/1944 | 4/7/2013 | United States | Complete | Complete | Complete | Mix | Complete | Complete |
| VZV Genome ID | Genbank ID | VZV Clade | DOB | Rash Onset | Birthplace | R1 | R2 | R3 | R4A | R4B | R5 |
| KPZ13-179 | MH709355 | 2 | 7/24/1926 | 4/2/2013 | Asia | Complete | Complete | Complete | Slight Mix | Mix | Complete |
| KPZ13-191 | MH709356 | 1 | 6/26/1950 | 4/1/2013 | Mexico | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ13-204 | MH709357 | 4 | 7/18/1931 | 4/14/2013 | United States | Complete | Complete | Complete | Mix | Complete | Complete |
| KPZ13-207 | MH709358 | 5 | 4/14/1925 | 4/18/2013 | Other | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-219 | MH709359 | 2 | 12/17/1928 | 4/22/2013 | Asia | Complete | Complete | nd | Complete | Complete | Complete |
| KPZ13-221 | MH709360 | 5 | 8/27/1938 | 4/26/2013 | Africa | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ13-225 | MH709361 | 1 | 3/6/1941 | 4/29/2013 | Asia | Complete | Complete | nd | Complete | Complete | Complete |
| KPZ13-238 | MH709362 | 5 | 3/30/1947 | 4/22/2013 | Asia | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ13-240 | MH709363 | 2 | 3/1/1948 | 5/2/2013 | United States | Complete | Complete | nd | Mix | Mix | Complete |
| KPZ13-248 | MH709364 | 4 | 4/7/1945 | 5/8/2013 | United States | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-250 | MH709365 | 5 | 4/10/1940 | 5/12/2013 | Asia | Complete | Complete | Mix | Complete | Mix | Complete |
| KPZ13-258 | MH709366 | 2 | 6/20/1939 | 5/12/2013 | Asia | Complete | Complete | Mix | Complete | Mix | Complete |
| KPZ13-270 | MH709367 | 1 | 11/9/1942 | 5/19/2013 | United States | Complete | Complete | Complete | Complete | Mix | Complete |
| KPZ13-275 | MH709368 | 1 | 10/13/1932 | 5/24/2013 | United States | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ13-280 | MH709369 | 1 | 6/4/1942 | 5/27/2013 | United States | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-281 | n/a | 2 | 5/30/1945 | 5/23/2013 | Central//South America | Complete | Complete | nd | nd | Complete | Complete |
| KPZ13-287 | MH709370 | 4 | 8/11/1930 | 6/1/2013 | United States | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-304 | MH709371 | 4 | 7/8/1946 | 6/7/2013 | Canada | Complete | Complete | Complete | Mix | Mix | Complete |
| KPZ13-316 | MH709372 | 4 | 6/13/1937 | 6/27/2013 | United States | Complete | Complete | Complete | Complete | Complete | Complete |
| KPZ13-319 | MH709373 | 5 | 3/11/1933 | 6/20/2013 | Asia | Complete | Complete | Mix | Mix | Mix | Complete |
| KPZ13-344 | MH709374 | 5 | 9/16/1935 | 7/12/2013 | United States | Complete | Complete | Mix | Slight Mix | Mix | Complete |
| KPZ13-353 | MH709375 | 3 | 11/18/1931 | 7/10/2013 | Central/South America | Complete | Complete | Mix | Complete | Mix | Complete |
| KPZ13-372 | MH709376 | 2 | 1/27/1938 | 7/21/2013 | Asia | Complete | Complete | Mix | Complete | Complete | Complete |
| KPZ13-382 | MH709377 | 2 | 5/4/1942 | 7/31/2013 | Asia | Complete | Complete | Complete | Mix | Complete | Complete |
| KPZ14-278 | KY037797 | 5 | 10/7/1942 | 8/15/2014 | United States | Complete | Complete | Complete | Mix | Complete | Complete |
| P14-190 | n/a | 6 | 5/1/2012 | 6/21/2014 | Guatemala | Complete | Complete | Complete | Complete | Complete | Complete |

