



Factsheet Varicella-zoster virus Caribbean Netherlands PIENTER 3 study results

Background

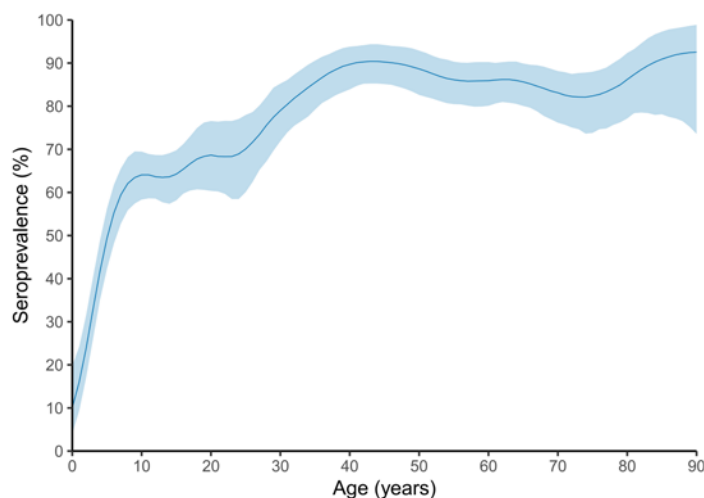
Varicella-zoster virus (VZV) follows a typical epidemiology in remote and tropical regions such as the Dutch Caribbean overseas territories. This is generally illustrated by less pronounced seasonality when compared to temperate regions, such as the (European) Netherlands. This causes buildup of susceptibility in the population, including among adolescents, adults and those with comorbidities who are at higher risk of severe disease upon infection. Consequently, relative large outbreaks of chickenpox can occur after years of zero to none introduction of VZV, causing a high burden of disease in the island populations as was greatly exemplified on Saba in 2017. The seroepidemiological data from the Health Study Caribbean Netherlands (CN) was used to obtain insights into VZV susceptibility and its determinants in CN. These results are key input for the consideration of introduction of a highly effective VZV-vaccination into the National Immunization Program (NIP).

Results

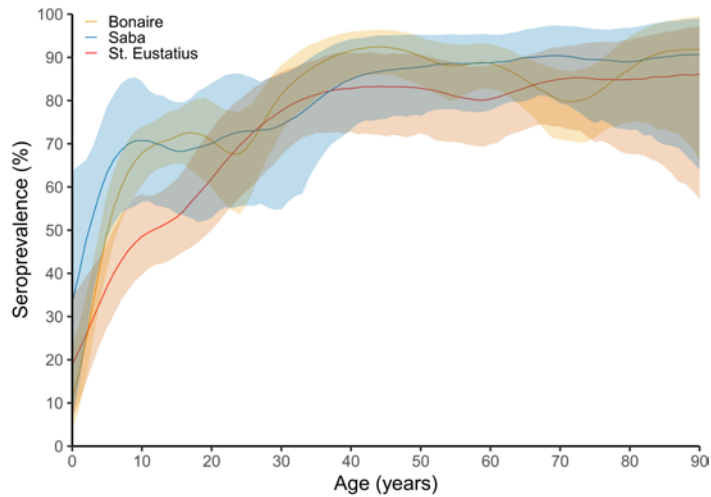
Overall seroprevalence in CN was low 78%, especially when compared with nationwide estimates in European Netherlands (95%). Lowest rates were seen on St. Eustatius (73%) and highest on Bonaire and Saba (79%). Relative high susceptibility was observed among adolescents (40%) and adults (10–30%). Highest odds for VZV seronegativity were seen among persons who were born in CN or had resided there since early childhood, as well as among single-person households.

Figure. Age-specific seroprevalence (%) (with 95% confidence envelopes) of varicella zoster virus IgG antibodies in the general population of Caribbean Netherlands (a), 2017, by island (b), and by ethnic background (c).

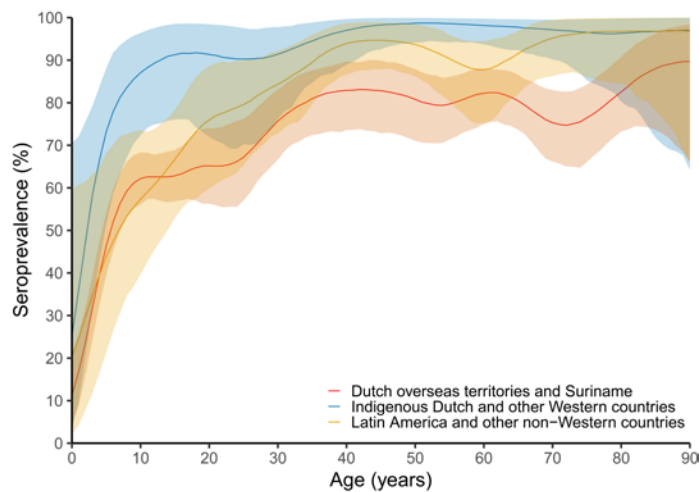
A)



B)



C)



Conclusion/discussion

These findings have been essential in the decision-making process of introduction of a VZV-vaccine into the NIP in CN, including a catch-up campaign for those that had never been infected. Following advice from the Dutch Health Council, the Ministry of Health (VWS) decided positively upon introduction of the VZV-vaccination. These data can also be of support for other countries in Central America and the Caribbean as the burden of VZV is high and only few countries have introduced a vaccine yet.

Publication

[High varicella zoster virus susceptibility in Caribbean island populations: Implications for vaccination.](#)

Vos RA, Mollema L, van Boven M, van Lier A, Smits G, Janga-Jansen AVA, Baboe-Kalpoë S, Hulshof K, Stienstra Y, van der Klis FRM, de Melker HE.

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