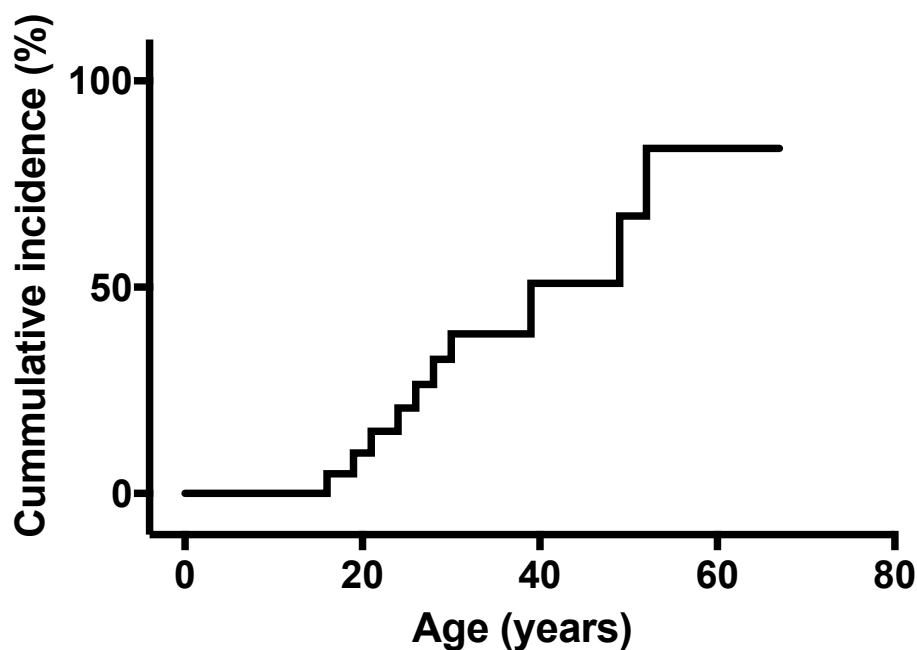**Supplementary Figure**

Age-related penetrance of *CDC73*-related disorder features for previously reported non-index *CDC73* deletion carriers listed in Table 1 (n=21, #14-2 was excluded since age information was not available). The number of carriers at risk at each decade of age is depicted underneath. The mean age (± SD) at diagnosis of PHPT was 41 ± 20 years (range, 16 to 52 years) in affected non-index deletion carriers, and the age-related overall penetrance values for the 21 non-index *CDC73* deletion carriers were 21% at age 25 (95% confidence interval (CI), 1% to 56%), 67% at age 50 (95% CI, 50% to 85%), and 83% at age 70 (95% CI, 63% to 93%). Statistical analyses were conducted using IBM SPSS Statistic 25.0 (IBM) and Prism 7.0 (GraphPad).