Background: We aimed to investigate the burden and yield of repeat Helicobacter Pylori testing after a negative $^{13}$C-UBT result among Israeli population at the Clalit Health Services (CHS).

Methods: We analyzed laboratory and demographic information about subjects who performed $^{13}$C-UBT in CHS between 2007 and 2014 and did not receive Clarithromycin-Moxycen treatment within 5 years from the first $^{13}$C-UBT. Demographic and prescription data were extracted from the HMO database.

Results: 223,491 subjects were included; 25,740 (11.5%) aged 18 at first $^{13}$C-UBT. A total of 114,585 (51.4%) had their first $^{13}$C-UBT negative. Of them, 15,287 (13.3%) had at least one repeated $^{13}$C-UBT, summing up to 33,865 repeated exams, none of which were positive. A total of 31,850 subjects (14.3% of the total cohort) had their first test positive followed by a negative test. Of them, 8,541 subjects (26.8%) performed at least one more test, summing up to 10,609 tests. These repeated exams yielded 868 subjects (2.7%) with a positive test: 544 (62.7%) within 1 year (17.6% aged 18 years) and 324 (37.3%) more than a year (9.3% aged 18 years). Overall, 44,474 repeated exams after a negative test were performed, summing up to 1.1 Million USD over 7 years, to detect 868 (2.7%) subjects with recurrence or recrudescence.

Conclusion: The yield of repeated $^{13}$C-UBT after a first negative result is Null. The yield of repeated $^{13}$C-UBT after a positive to negative result pattern is extremely low, although somewhat higher among the pediatric population.