Abstract: It is believed that there should be infinitely many pairs of primes which differ by 2; this is the famous twin prime conjecture. More generally, it is believed that for every positive integer $m$ there should be infinitely many sets of $m$ primes, with each set contained in an interval of size roughly $m \log m$. We will introduce a refinement of the ‘GPY sieve method’ for studying these problems. This refinement will allow us to show (amongst other things) that $\lim \inf_n (p_{n+m} - p_n) < \infty$ for any integer $m$, and so there are infinitely many bounded length intervals containing $m$ primes.