Men-who-have-sex-with-men HIV PrEP cascades in 43 countries
Findings from the European MSM Internet Survey 2017

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Background
Men-who-have-sex-with-men (MSM) are the subpopulation at greatest risk of HIV in Europe and China. HIV pre-exposure prophylaxis (PrEP) has great potential to interrupt transmission. Prevention cascades have been proposed to focus primary HIV prevention programmes on the most commonly unmet needs. We constructed a PrEP cascade for MSM and compared it across 43 countries with more than 100 respondents using data from the European MSM Internet Survey 2017 (EMIS-2017).

Methods
EMIS-2017 was a 33-language, self-completion online survey (10/2017–01/2018) recruiting 122,495 MSM without discrepant data in 50 countries, of whom 109,344 (89.3%) were without diagnosed HIV. We constructed a five-step PrEP cascade: awareness (heard of PrEP); knowledge (key facts: ‘PrEP involves someone who does not have HIV taking pills before as well as after sex to prevent them getting HIV’; ‘PrEP can be taken as a single daily pill if someone does not know in advance when they will have sex’; intention to use (very likely to use PrEP if affordable/accessible); accessibility (tried to get PrEP; current use (daily/on demand). We applied the cascade to multiple countries with different denominator populations (100%): (A) all non-HIV-diagnosed MSM; (B) reporting two or more non-steady condoms anal intercourse partners, past 12 months (objective risk); and (C) disagreeing with ‘The sex i have is always as safe as i want it to be’ (subjective risk).

Results
Among MSM not diagnosed with HIV, 3.2% were using PrEP—2.1% as a daily pill and 1.1% when they needed it (figure 1 for country variation). Figure 2 shows the five steps overall and for the subgroups objectively and subjectively at risk of HIV infection. MSM taking PrEP were added at all previous levels of the cascades. 21.2% met the objective risk measure, and 13.2% the subjective risk measure.

Conclusions
In very many countries a high proportion of MSM lack basic awareness of PrEP and / or a sound understanding of its potential personal utility. Alongside efforts to ensure equitable PrEP availability and accessibility, many countries need to consider prioritising educational interventions for all MSM.