Authors' reply: HIV-1 outbreak among injecting drug users in Greece, 2011: a preliminary report

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To the editors: We read with interest the letter from M Salminen commenting on our paper about an outbreak of HIV infections in intravenous drug users (IDUs) in the first seven months of 2011 in Greece and the preliminary results from molecular epidemiological analysis, recently published in *Eurosurveillance* [1,2].

We hereby reply to the points made and thank the author for the opportunity to clarify and discuss some aspects of our work not included in the preliminary epidemiological report.

The letter comments that high resolution molecular typing is currently not an appropriate analytical method and that more research is needed on its value for epidemiological studies. The aim of our preliminary analysis was to present early findings of the outbreak and not to review and to thoroughly discuss advantages and limitations of high resolution molecular typing for epidemiological studies. However, we would like to point out that molecular epidemiological methods are widely used for the understanding of origin and spread of infectious agents [3, 4] and molecular typing was applied in different investigations in HIV epidemics among IDUs across Europe [5-7].

As concerns the representativeness of the Greek HIV sequence database and our cases, we can confirm that the database is representative for age, sex and transmission group distribution of the HIV epidemic in Greece according to earlier analyses [8, 9]. It includes sequences from 2,327 cases, one fourth of the total reported HIV cases in this country since the beginning of the HIV/AIDS epidemic in 1981. Even if the substance of our analysis was not representativeness, our database is sufficiently large to provide preliminary indication that the sequences from the majority of clustered IDU cases were not recognised previously in Greece. Moreover, as shown in Table 1 of our original communication, we compared our data with the reference population.

Since the epidemic is ongoing any clue on possible underlying risk factors might have implications for prevention. We acknowledge and agree with the author of the letter that scientific information may face the risk of political exploitation and migrant populations represent historically one of the most vulnerable groups. However, our hypothesis about the role of migrants in this outbreak is important for prevention and is based on the fact that (i) the outbreak seems to be very recent according to surveillance data, (ii) it involves a "new" HIV strain which clusters with sequences originated from IDUs of a specific ethnic background and (iii) a high number of IDUs of the same ethnic background live in close vicinity in Athens. These represent a hint that migrant IDUs could potentially have a role in this outbreak. Therefore, the Greek public health authorities are conducting an awareness campaign specifically targeting migrant populations and at the same time they are prioritising migrant IDUs recruitment in opioid substitution programmes, antiretroviral treatment and other public health preventive measures designated as "Seek, Test, Treat and Retain" strategy [10-12].

We strongly disagree with M Salminen that the prevention programme for IDUs as a vulnerable group has failed in Greece. As pointed out in our paper, a distinctive characteristic of HIV-1 transmission in Greece, compared with other European countries, was the unusually low number of HIV-1 infections until 2011. Moreover, considering the present difficult economic situation in this country [13] and the huge influx of undocumented migrants, it seems counterproductive to blame public health authorities for potential recent failure of preventive programmes against HIV.

In our paper we did not state that migration would constitute an external threat to the health of the native population and we were careful not to over specify our findings. Far from blaming migrants, we are convinced that we were able to provide relevant information for public health action that will hopefully contribute to prevention and control of the current outbreak.

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