Motivators of Participation in HIV Vaccine Trials
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Introduction
- One goal of HIV vaccine preparedness studies (VPS) is to measure motivators of participation in HIV vaccine trials.
- Knowledge of these attitudes may inform recruitment strategies in an HIV vaccine trial.
- The Health Belief Model provides a theoretical basis for an analysis of motivators and thus, willingness to participate (WTP) in an HIV vaccine trial, given the model's emphasis on perceived costs and benefits.
- Motivators can be classified into: social (altruism) and personal.
- Social motivators of WTP can be further classified:
  - Microsocial: personal relationships
  - Mesosocial: community
  - Macrosocial: gender equality
- Perceived personal motivators of WTP can be further classified into: psychological, physical, and financial.
- It is also important to consider whether hypothetical motivators would also be motivators in an actual HIV vaccine trial.
- In this study, a distinction is made between the organization for economic co-operation and development (OECD) countries and the non-OECD countries. The non-OECD countries generally feature lower per-capita income, often with a higher prevalence and incidence of HIV than found in the OECD countries.

OBJECTIVES
- Review both social and personal hypothetical motivators of WTP, specifically in the context of HIV VPS.
- Compare social and personal motivators between the OECD and the non-OECD countries.

Material and Methods
- In 2010, S.D. and G.P. searched the Cochrane Database for Systematic Reviews, Medline (1950 to 2010), PubMed, Embase (1980 to 2010), and Google Scholar.
- For the OECD countries, search terms were: "HIV", "vaccine preparedness", "HIV vaccines", "motivators", and the 30 OECD countries. Additional search terms for the non-OECD countries were "developing country" and "non-OECD".
- Additional articles were retrieved from bibliographic references.
- In the OECD countries, 8 studies reporting social benefits and 11 studies reporting personal benefits were retrieved.
- In the non-OECD countries, 9 studies reporting social benefits and 20 studies reporting personal benefits were retrieved.
- The VPS chosen were tabulated and divided into those citing social (altruistic) and personal benefits.
- Social benefits were divided into: microsocial, mesosocial, and macrosocial.
- Personal benefits were divided into: psychological, physical, financial.
- The present study standardizes the denominators to the number of participants responding to a particular item, independent of their WTP.

Results
- In the OECD countries for social benefits and personal benefits, populations included injection drug users (IDU), men who have sex with men (MSM), woman at heterosexual risk (WAHR), African Americans, hemophiliacs. Most studies were in MSM.
- Protection from HIV as the most common psychological motivator in the OECD countries.
- In the non-OECD countries for social benefits, populations included IDU, MSM, commercial sex workers (CSW), military conscripts, high school students / adolescents, sexually transmitted infection (STI) patients, community volunteers.

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<tr>
<th>Country</th>
<th>Social Benefits</th>
<th>Personal Benefits</th>
</tr>
</thead>
<tbody>
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<td>MSM</td>
<td>43.1% help community, 40.6% help stop spread of HIV/AIDS, 20.6% help find a vaccine that works</td>
<td>56.9% help community, 44.6% help stop spread of HIV/AIDS, 26.4% help find a vaccine that works</td>
</tr>
<tr>
<td>China</td>
<td>51% help community, 41% help stop spread of HIV/AIDS, 30% help find a vaccine that works</td>
<td>64% help community, 59% help stop spread of HIV/AIDS, 43% help find a vaccine that works</td>
</tr>
<tr>
<td>Korea</td>
<td>56% help community, 50% help stop spread of HIV/AIDS, 33% help find a vaccine that works</td>
<td>60% help community, 57% help stop spread of HIV/AIDS, 40% help find a vaccine that works</td>
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Conclusion
- In the OECD countries for social benefits, populations included IDU, MSM, commercial sex workers (CSW), military conscripts, high school students / adolescents, sexually transmitted infection (STI) patients, community volunteers.
- Protection from HIV was cited as a psychological motivator in the OECD and the non-OECD countries in a large number of studies.
- Percentage of participants stating a particular motivator varied in the different studies.
- Various forms of altruism were found to be major motivators for participation in both the OECD and the non-OECD countries.

Summary
- To our knowledge, this is the first study to comprehensively review motivators for participation in hypothetical HIV vaccine trials.
- Both social and personal benefits were found to be motivators of WTP in an HIV vaccine trial in diverse as well as some marginalized populations.
- A person's decision to participate appears to involve multiple factors.
- These motivating factors could target recruitment and WTP.
- However, perceived protection may not be useful in promotion of WTP.
- In a study by Buchbinder et al. (2004), protection of self was only listed as a motivator by <1% of participants (MSM, male IDU, WAHR) for an actual phase 2 HIV vaccine trial.
- However, in the RV144 study, altruism was the most important motivator for participation.

Limitations
- Socially desirable responses (eg. for altruism).
- Different scales used for measuring participation.
- Generalizability.
- In some studies, there was no stratification by patient population.
- Odd ratios were not consistently reported.
- A motivator could also be related to non-WTP.
- The value of monetary incentives was not specified in studies listing these as motivators.

Future research
- Review motivators for phase 1 and 2 trials, and in focus groups.
- Motivators for retention should be reviewed.
- Other populations such as HIV-discordant couples and Aboriginals could be examined.
- More studies are required to examine motivators secondary to the STEP study and the RV144 study.