# **VIMC Request for Proposals**

# **Frequently Asked Questions (FAQ)**

For more details please visit <https://www.vaccineimpact.org/2022-11-23-rfp/> and read our detailed [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx). If your question is not answered in the Guide or this FAQ document, please contact us at vimc@imperial.ac.uk.

1. **Do we have to upload the modelling results in the Montagu platform before being accepted as a core-funded modelling group?**

A. It depends on whether you are applying as a disease-specific group, or as a cross-cutting group.

Disease-specific groups (malaria, COVID-19, meningitis A / MMCV, hepatitis B) will need to upload test estimates to Montagu as part of the RfP application process, but only for one anonymised pre-defined country. VIMC will provide example demography, example vaccination coverage, and templates to use for the uploads. The aim of these test estimates is to check whether your model can produce outputs in the standardised format that VIMC requires. If you are then selected to join VIMC as a core-funded modelling group, you will be expected to provide similar outputs for 117 countries (or all endemic countries). For more details, please see the ‘Output specification guidance’ section of our [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx).

Cross-cutting groups will not need to upload test estimates to Montagu as part of the RfP application process.

1. **Should I apply as a disease-specific group, or as a cross-cutting group? I am a geospatial modeller working on malaria in sub-Saharan Africa.**

A. If you have read our [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx) and are still unsure which RfP type is most suitable, please email vimc@imperial.ac.uk with more details of your model and we will try to advise you.

If you are unable to provide disease-specific test estimates for one anonymised country in our standardised format but are able to contribute to VIMC’s aims in other ways (and are not limited to one disease area), we would generally advise you to apply as a cross-cutting group. Please note we expect cross-cutting groups to have demonstrated expertise in one of the types of modelling listed on the [RfP page](https://www.vaccineimpact.org/2022-11-23-rfp/) (operational aspects, health economics, impact of climate on disease dynamics, geospatial aspects).

1. **Can we get vaccine coverage data from Gavi, for example for Hepatitis B vaccine modelling?**

A. For disease-specific groups, VIMC will provide vaccine coverage data for you to download via the Montagu platform. This coverage data is generally informed by Gavi’s vaccine forecasts, although there may be some differences in future projections.

1. **How do I download demography and upload estimates on Montagu?**

A. We have recorded a demonstration video. To get access to this, you will first need to register your group’s interest; please see the ‘Next Steps’ section of our [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx) for more details.

1. **Can we have a one-to-one discussion to get your point of view on our specific model?**

A. Please email vimc@imperial.ac.uk in the first instance. Given the relatively small size of the VIMC secretariat and the high level of interest in our RfP, we are unlikely to have the resources for one-to-one calls, but we encourage you to email us with any questions.

1. **For LMIC groups that are still going through capacity building process, what are the possibilities under this RfP?**

A. Please read our [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx) closely, consider if you have cross-cutting expertise that could help VIMC achieve its aims and add value, or whether you have the disease-specific capacity in your model that VIMC is looking for (or are working towards this goal). If you want to work with VIMC but are not sure whether your model has what we are looking for, we would still encourage you to get in touch. We want to expand our networks more broadly and we want to include more training and collaborative opportunities through VIMC 2.0. The RfP will help us identify groups for core-funding but will also have wider goals.

The VIMC structure is changing and our project working groups will be policy focused and will include a variety of stakeholders (including consumers of vaccine impact estimates), not just core-funded VIMC modelling groups.

1. **How does climate and climate change fit with VIMC?**

A. We have a new research programme looking at the impact of climate change on vaccine-preventable diseases. This programme is funded by the Wellcome Trust. More information about the specific aims of this programme and how it supports the broader goals of VIMC can be found in our [VIMC 2.0 funding announcement](https://www.vaccineimpact.org/2022-11-14-VIMC-2-0-funding/).

The programme will initially look at mechanistic relationships between climate and transmission, starting with climate-sensitive vaccine-preventable diseases (e.g. yellow fever, malaria, dengue, cholera, meningitis A). It will then look more broadly at factors that may influence all vaccine-preventable diseases, e.g. climate-related population displacement. We will work with the Grantham Institute and want to integrate the mechanistic transmission modelling with the processes of climate change (including implications of more frequent extreme weather events for vaccine-preventable diseases). Examples of questions that this research programme may address include:

* Are climate factors changing the endemic range of a specific disease?
* Do we expect new populations to be more at risk before of transmission changes due to climate change?
* What are the implications of those changes on vaccine stockpiling and future vaccine planning?
1. **For climate-sensitive vaccine preventable diseases, will chikungunya be of interest, given that new vaccines are in the pipeline?**

A. Not currently. We will work closely with our funders and new stakeholder group. If they raise questions on chikungunya in due course (for example as part of VIMC’s mid-term review in 2025) we would consider expanding our scope in that direction.

1. **For disease-specific models, are you looking for models that include assumptions around waning immunity, either natural or vaccine-derived?**

A. Disease-specific groups will need to provide model documentation as part of their RfP application materials. As part of this, we welcome details of your model’s assumptions and expectations about duration of immunity, especially vaccine-derived immunity. (Groups that are selected to join VIMC will then need to complete a ‘cheat sheet’, which includes more detailed questions on these assumptions.) Depending on the disease, assumptions may be all-or-nothing (i.e. immunity will always stop infections), or more nuanced (e.g. tied in with assumptions around reduction in symptoms).

1. **What kind of modelling is VIMC expecting?**

A. The type of models used across the groups in the Consortium vary substantially in approach. Some use a fully mechanistic approach whereas other groups combine methods between statistical/ machine learning and mechanistic components. One aspect that all disease-specific modelling groups must include is the mechanism of vaccine action so that they can model different immunisation scenarios. If you are uncertain that your modelling approach is suitable for this RfP please have a look on our website at vaccineimpact.org to see some of the documentation for existing modelling groups in the VIMC, or get in touch via email on vimc@imperial.ac.uk

1. **For disease-specific groups, what do you mean by a mechanistic modelling approach?**

A. A mechanistic model explicitly models transmission dynamics and the impact of vaccination. However, we appreciate this will be difficult for some diseases, so we expect some disease-specific models may be only partially mechanistic. All disease-specific models should be able to explicitly include the effect of different vaccination coverage levels on transmission, burden, or disease severity rather than, for example, projecting only current trends.

1. **Are you expecting groups to have a particular background or field, e.g. mathematicians or biologists?**

A. We have no specific expectation about applicants’ field or background, and it is up to each group to decide on the most suitable composition of its members to deliver the work required. The existing consortium members have a diverse range of backgrounds and have moved between fields. It is essential, however, that applicants should have experience in modelling.

1. **Can the model be theoretical?**

A. Our [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx) includes a section on the VIMC model standards. In that, we ask for models to be calibrated or estimated from existing epidemiological data. Therefore, a model that is purely theoretical would not be suitable for VIMC. However, we appreciate that data is not necessarily available for all countries and years that we request. As such, we welcome comments in your model documentation on how you adjust or extrapolate for sparse or missing data.

1. **Do we need to have an already established model?**

A. Yes. For both disease-specific and cross-cutting groups, we are looking for models that have been developed to a certain stage (even if further development is planned). We are not looking to fund models that need to be developed from scratch. However, as we plan to work with a wide range of modellers (not just core-funded groups), we are keen to hear from groups with a model that feel they can contribute to VIMC in some way. Details of disease-specific models currently in VIMC can be found on [our website](https://www.vaccineimpact.org/) (under ‘Models’); this will show you the range of approaches taken. We understand that adding the component of mechanistic vaccine modelling may be a challenge for some groups.

1. **Can we submit more than one application, for different diseases?**

A. If your group has models for more than one of the diseases in the RfP then you are welcome to submit more than one application. Each application will need to be submitted separately.

1. **What is the difference between core-funded groups and other groups you plan to work with as part of your wider network?**

A. Through the RfP we are looking to take on groups that will receive core-funding (of $73,000 / £60,000 per year). We realise that the scope of work and deliverables we are asking from core-funded groups are ambitious (see section 5 of the [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx)). Therefore, we are also keen to hear from other modellers who do not anticipate receiving core-funding, but who would like to be part of our wider network. We will keep modellers in our wider network informed of future opportunities to collaborate on specific questions of mutual interest.

1. **What is the process for deciding on which vaccine policy questions are addressed by VIMC modellers?**

A. This will be an iterative process with a range of stakeholders, both to assess and prioritise the questions, and then to answer them. Please see the flowchart on page 15 of our [Guide for Applicants](https://www.vaccineimpact.org/resources/VIMC_RfP2022_guide-for-applicants.docx) for more details (‘*Answering vaccine-policy questions with modelling*’).

1. **Who will define the research activities carried out by core-funded groups?**

A. We refer to VIMC’s research activities as our ‘shared learning agenda’. We expect VIMC modellers and the Stakeholder Group to play a strong role in shaping this agenda. Current areas of interest include how to optimize the use of available vaccines and respond to future challenges in vaccine impact modelling, such as population displacement and climate change. We anticipate our shared learning agenda will link closely to VIMC’s core work to answer vaccine policy questions.

1. **Do you expect us to write a research proposal in the application form?**

A. No, we are not asking groups applying to this RfP to write their own detailed research proposal. However, cross-cutting groups are asked to provide a 300-word description of their research focus and its relevance to VIMC, as part of their application form. In general, the research taking place across VIMC should be well integrated to VIMC’s core goals. The RfP application form is more focused on groups’ experience and skills in terms of policy and modelling. As noted above, if groups are selected to join via the RfP then we expect them to be involved in helping shape VIMC’s research agenda.

1. **Is VIMC focusing only on vaccine interventions? In real life there is a need to use complementary interventions.**

A. VIMC focuses on vaccine interventions only. However, we acknowledge that testing, surveillance, and healthcare changes need to be taken into account, as they may have implications for disease severity and reported disease burden.

1. **Can the core funding be used to recruit students?**

A. Given the nature of the work, the funding can be used to employ research assistants, but we will not pay student fees. Please note that we do not require a budget breakdown at application stage. VIMC’s goals include providing training in infectious disease modelling and its application, for example through a fellowship scheme and short courses. Therefore, there may be other opportunities for students to be involved in VIMC’s work, outside of this RfP.

1. **Where will the data inputs required for the modelling come from?**

A. VIMC will provide standardised datasets on vaccine coverage and demography for groups to use as model inputs. However, groups will need to source all other data (including disease-specific data) themselves.

1. **I am a disease-specific modeller who is preparing to upload sample estimates on Montagu, as part of my application. As the demography and vaccine coverage scenarios on Montagu are for an anonymised country, it will not be possible to have the baseline or vaccine scenarios reflect true epidemiological estimates (e.g. model calibration will not be possible). Is it correct that VIMC is just interested in applicants being able to provide model outputs in the correct format, and to navigate the systems correctly?**

A. Yes, your understanding is correct. For the RfP, the purpose of these estimates is so we can check that your model is able to produce estimates in our standardised format. Of course, if you are selected to join VIMC as a core-funded modelling group, you will then be expected to provide estimates for up to 117 countries, and your estimates will need to reflect actual epidemiology.

**Q24. Is it necessary to include co-applicants? Do co-Is increase the chance of success?**

A. We refer to applications as coming from ‘groups’ as this is the most common set-up. However, it is not essential to include a co-applicant: as stated in Q12, it is up to each applicant group (or solo applicant) to decide on the most suitable composition of its member(s) to deliver the work required. We will be looking at the skills and experience of each applicant group as a whole.

**Q25. Is a budget breakdown required at application stage? What can the budget be used for?**

At application stage, no budget breakdown is required. The budget can be used for salaries, computers, and data costs, but not travel expenses as those costs would be paid directly by VIMC.

**Q26. Should the application be submitted by the lead applicant (PI) or by their institutional administration?**

Applications should be submitted by email to vimc@imperial.ac.uk; it is fine for this to come from the lead applicant (PI).

**Q27. In Montagu, which vaccine does the malaria coverage data refer to?**

**The coverage scenarios for malaria in this RfP are based primarily on this resource:** <https://www.nitag-resource.org/sites/default/files/2022-05/Modelled-public-health-impact-and-cost-effectiveness-rtss-vaccine-2021.pdf>. This states “*2 main vaccination scenarios are considered, routine age-based immunisation with RTS,S through the EPI, with primary doses given at 6, 7.5 and 9 months of age with a fourth dose at 27 months of age.”.* As such, the malaria coverage scenarios are primarily focused on RTS,S.

**Q28. Do you assume drop-off in the fourth dose of the malaria vaccine?**

Yes, we assume a drop-off for dose 4. Specifically, we assume that dose 4 achieves 80% of the coverage of dose 3. The coverages files on Montagu already account for this.

**Q29. Vaccination coverage is only provided up to 2030 (for COVID-19). What assumptions should be made about cohorts born after 2030? I understand they are not part of reporting but they will still have a significant impact on dynamics.**

We agree cohorts after 2030 will still influence dynamics. For the purpose of the RfP and more generally we are assuming no vaccination past 2030, for COVID-19. This assumption does not necessarily apply for other disease areas, or for all vaccinations or activity types, and we will be reviewing this assumption before VIMC’s next major update (in 2023-2024).

**Q30. The document linked for DALYs doesn't have any disability weights for COVID or malaria. We can source these ourselves, but is there is a standard set of weightings we should be using?**

We will be updating the weights following the RfP and before VIMC’s next major update (in 2023-2024). If you could provide your own estimates of disability weights in the model documentation that you submit as part of your RfP application, that would be very helpful.

**Q31. I am applying for the disease-specific RfP. The Guide for Applicants states that only 30 stochastic runs are needed. However, the stochastic parameter template in Montagu contains 200 rows. What should I do?**

The Guide for Applicants is correct; only 30 stochastic runs are needed. Please delete the excess rows before you upload your stochastic parameters to Montagu.

**Q32. I am applying as a disease-specific group. Where can I upload the lower bounds and upper bounds of central burden estimates on Montagu?**

This is not necessary. Montagu should be used to upload your central estimates. As stated on page 21 of the Guide for Applicants, the central estimates should be either means or medians of your stochastic estimates (or posterior distributions arising in the model fitting, ML estimates or similar or based on best estimate parameters). The stochastics should be uploaded to Dropbox (to the link provided by email when your group registered). If needed, VIMC will then be able to calculate the bounds from your stochastic estimates.

**Q33. What time exactly is the deadline on 31 January?**

You should interpret the deadline as 11:59:59pm UK time on 31 January.