Call for proposals: COVID-19 Bottom-up Focus areas 1 and 2
COVID-19 BOTTOM-UP FOCUS AREAS 1 AND 2

Inhoud

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**Disclaimer**

Please note: This document is a translation of the Dutch version of this document. In case of any differences or other inconsistencies between the Dutch text and the English translation, the Dutch text is legally binding and prevails.

**AIM CALL FOR PROPOSALS – PRE-PROPOSAL PHASE**

On behalf of the Ministry of Health, Welfare and Sport (VWS) and together with the Dutch Research Council (NWO), ZonMw via the programme COVID-19 second wave invites researchers to submit proposals for research addressing at the effects of the measures against the coronavirus pandemic.¹

The programme has three key objectives:

- Contributions to controlling the coronavirus pandemic and preventing or reducing the negative effects of the measures taken against it. For example: helping people who have become ill, supporting vulnerable people in society who are affected by the measures, and describing the effect of redeploying care on other care needs;

- Generating new knowledge about the control of epidemics and pandemics; generating knowledge about diagnostics, treatment and prevention of COVID-19 and related diseases as well as the recovery from these. Knowledge also needs to be generated about logistics and supply lines for the materials and equipment required, data collection/analysis, modelling and technical possibilities to follow and predict the development of the pandemic;

- Generating knowledge about the (global) societal dynamics during and after this and comparable far-reaching health crises and the measures taken against these. This societal dynamic is not limited to within the Netherlands. Worldwide, the consequences of measures taken against the spread of the virus will be greater than the consequences of the actual virus.

These objectives have been summarised in three focus areas in the programme: **Predictive diagnostics and treatment**, **Care and prevention** and **Societal dynamics**. Collaboration between researchers, disciplines and relevant stakeholders is the starting point for efficiently obtaining these insights and realising a satisfactory preparation for a future pandemic.

This call for proposals is aimed at focus areas 1. **Predictive diagnostics and treatment** and 2. **Care and prevention**. Research within this funding call requires an interdisciplinary approach: besides medical- and care-related research, sustainable solutions can only be achieved in collaboration with the engineering, physical, natural and social sciences and the humanities. For example, smart (key) technologies and artificial intelligence can contribute to the focus areas of the programme.

**Focus area 1. Predictive diagnostics and treatment**

The aim of this focus area is to provide knowledge for the (further) development of (predictive) diagnostics for the prevention and individualised treatment of COVID-19-related symptoms in the early, acute and recovery phases. It concerns research into new or existing therapies and their working mechanisms and obtaining insight into, amongst other things, the microbiome, immunity, predictive parameters and individualised treatment.

The focus area has four themes:

1. **Treatment**
2. **Diagnostics of infection**
3. **Risk analysis and prognostics**
4. **Virus, immunity, immune response and pathogenesis**. Within this theme, contributions to animal-free innovations can also be made.

The themes are further elaborated in Annex 1 and Annex 1a of this call for proposals.

**Focus area 2: Care and prevention**

The aim is to make urgent research within three themes directly possible and to initiate this:

1. **Organisation of care and prevention**
2. **Care and prevention for vulnerable citizens**
3. **Transmission and epidemiology**

Various types of research are possible: evaluation trajectories, action research, effect studies, facilitation pathways, efficacy research in the event of postponing treatment/care avoidance, organisation of care issues, development of epidemiological models and inventories. The emphasis must be on obtaining insights and lessons learned that contribute to an improved, substantiated approach towards the current pandemic and to the safeguarding of these improved approaches and processes in the care system of the future. The themes are further elaborated in Annex 2 of this call for proposals.

Who can apply
Research organisations and other entities registered in the Netherlands, such as UMCs, non-academic hospitals, universities, universities of applied sciences, “practoraten” (knowledge platforms in vocational (mbo) education), care organisations, research institutes, consultancy bureaus, umbrella organisations, professional organisations and patient organisations can submit a pre-proposal.

A knowledge-chain-wide approach and collaboration between disciplines and with relevant stakeholders must be the starting point. This also includes patients and/or target group representation. This may be deviated from if motivated reasons are given.

To safeguard the research results for the future and increase their chances of being applied outside of the original research consortium, the pre-proposals will be assessed for the composition of the collaboration. The collaboration can include, for example, researchers, policymakers, professional practitioners, patients, end-users and educational institutions. In particular, the collaboration between (care) researchers in the area of people, environment and public-private partnership, national or international collaboration and collaboration from different research fields or between different educational levels (vocational education (mbo), higher vocational education (hbo) and university education (wo)) facilitates broader implementation. Please explain the added value of the collaboration in your pre-proposal.

To be eligible for funding, organisations that realise both a statutory duty as well as economic activities (in the context of the EU state support law) should state that they are carrying out the funded activities in the context of their statutory task (and so not as an economic activity).

Which amount can be applied for
For focus area 1. Predictive diagnostics and treatment, a maximum of €8.5 million is available (€2 million of this is allocated for clinical drug studies and €1.5 million for animal-free innovations). For focus area 2. Care and prevention, a maximum of €6.5 million is available.

Per project, a maximum of €0.5 million is available. The budget should be realistic and well motivated. Co-funding is possible and desirable for certain types of project.

Different frameworks can apply per focus area; for these, please see the annexes per focus area.

The intended maximum duration of the project is 24 months. In certain cases, this can be deviated from, but a thorough motivation should be provided for that.

Assessment criteria
Selection committees per focus area will assess the relevance, quality and budget of all pre-proposals. The applicable relevance, general and quality criteria are stated below.

The committee is responsible for a balanced spread of grants across the different themes within the focus area. This could mean that a high-scoring pre-proposal is not awarded funding for a theme where several pre-proposals are submitted in favour of a lower scoring pre-proposal from a different theme.

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2Economic activities entail offering a product or service in the market. Organisations that realise economic activities are considered to be a business with regard to these activities in the sense of EU law on state support.
In the case of pre-proposals with equal scores for relevance and quality, the ideas will be further ranked on the basis of geographical allocation of the proposed projects within the Netherlands.

**Relevance criteria**

**Call-specific criteria**

1. This programme intends to have an impact on the progress of this pandemic and the consequences of this for the Dutch population and society. You should therefore make it clear what the impact of applying the results from your project will be and when the application of the results will be effective in relation to this pandemic.
2. The proposal must make it clear that the Netherlands has a unique position to do this research. In other words, this is research for which the Netherlands can provide added value to what is already being done internationally.
3. The research is not already taking place elsewhere. For all subjects, the added value compared to research funded already or research awarded funding elsewhere must be convincingly stated.
4. The proposal should make it clear that public funding is indicated/necessary.
5. Safeguarding: it must be possible to use the developed structure/intervention/knowledge again in the future.
6. Scalability: the developed structure/intervention/knowledge must be applicable at both a regional and national level.
7. Collaboration: a knowledge-chain-wide approach and collaboration between disciplines and with relevant stakeholders is the starting point for the proposal. This also includes patients and/or target group representation. This may be deviated from if motivated reasons are given.
8. Added value: the contribution of the project for the discipline(s) concerned, stakeholders and target groups must be clearly described in relevant terms and must be demonstrable. Possible examples of this are health gain, reduced suffering, improved accessibility and processes.
9. Society and economy: the effect of the project on the societal and economic issues that the COVID-19 pandemic elicits, must be made clear.

**General ZonMw criteria**

Where applicable, you should also devote attention to the following aspects:

- **Diversity**
  ZonMw and NWO consider attention for the diversity of people in research to be important.³ The pandemic has different consequences for men and women and for different age groups. There are strong indications that this has both biological and sociocultural causes. In addition, the consequences are different for different socioeconomic or cultural groups due to differences in lifestyle, positions, roles and tasks in society (see, for example, this *Lancet* article). In all projects – if relevant – attention will be requested for the diversity of target groups. This means that in the design, realisation, analysis and reporting of results, applicants must make a distinction between men and women and other relevant subgroups on the basis of diversity. ZonMw requests applicants to provide a clear description of how they will deal with the diversity of people in various phases of the research. If diversity is not relevant for the proposed research, then the reasons for this must be motivated. At www.zonmw.nl/faqgender (only available in Dutch) more information is provided and resources can be found about how sex and gender can be properly integrated in research.

- **Application of ICT and e-Health**
  ZonMw has a broad view on the use of ICT in care. We understand this to be the use of e-Health applications, domotics, robotics, but also the storage of data with the help of ICT. We have formulated points of attention for ICT applications and ICT standards in research.

- **Education**
  Knowledge is mainly applicable and applied in education if it has been realised in an interaction between research, education and professional practice. How do you give shape and content to the interaction between education, research, professional practice and policy? Which results is your

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³ For more information on how to make your application more sex and gender sensitive, we invite you to take note of the general resources provided on these websites: https://genderedinnovations.stanford.edu/methods/health.html, http://www.cihr-irsc.gc.ca/e/32019.html. The CIHR-Institute of Gender and Health have also developed a specific guide for researchers why sex and gender need to be considered in COVID-19 research: https://cihr-irsc.gc.ca/e/51939.html
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project or research expected to provide for professionals in the field of prevention, welfare and health?

- **The participation of patients and/or end-users**
  ZonMw strives to involve stakeholders in the project, including the final target group that, or end-user who, has “experience-based expertise”. In concrete terms, we understand the term “involve” to mean consulting with, obtaining advice from, or collaborating with stakeholders and/or allowing them to (co-)decide in the projects. How do these stakeholders already play a role during the project or research?

More information about relevant criteria can be found at [https://www.zonmw.nl/en/news-and-funding/funding/relevance-criteria/](https://www.zonmw.nl/en/news-and-funding/funding/relevance-criteria/)

**Quality criteria**

- **Objective and problem or mission**
  Proposals will be assessed for clarity, scope and overlap with research that is already taking place or has already been funded. The objective is formulated in a SMART (specific, measurable, acceptable, realistic and time-limited) manner. State in concrete terms what the intended outcomes are and for whom these are intended.

- **Action plan**
  The action plan follows on from the objective. It provides a description of the methods and analyses chosen, including the theoretical and/or empirical motivation. A power calculation should be added, if applicable.

- **Feasibility**
  A competent research group is available that can start the project within several weeks after granting and the project must be feasible in the current pandemic situation. It must be likely that the aim of the proposal will be achieved within the time set with the available expertise, human resources, facilities and resources. A recruitment strategy must be described if the inclusion of patients/participants. You should also provide a timetable for this.

- **Project group**
  In the project group, relevant disciplines and intended target groups are represented.

More information about these criteria can be found in the procedure booklet (in Dutch) and on our website.

**CONDITIONS**

**Open Science**

ZonMw and NWO pursue a policy to encourage Open Science. They have signed the international statement to make research results and data public as fast as possible in the fight against COVID-19. Furthermore, research results, research data and measurement and analysis methods that are produced within this programme should be shared in line with the Joint statement on sharing research data and findings relevant to the novel coronavirus (nCoV) outbreak.

**FAIR data**

The web page Open Science in COVID-19 research provides an explanation about what can be done in projects to make data reusable and FAIR. Several options are possible. The starting point is that applicants together with a data steward (or other data expert) determine what is most appropriate within the project. We advise you to involve your data steward/expert at an early stage in your proposal. ZonMw will invite all data stewards/-experts to follow webinars that it will organise about this. They can register for this via covid19@zonmw.nl

ZonMw has eight instructions for Open Science and FAIR data. Four of the eight apply to the full proposal. Applicants can answer these by means of a form that must be submitted together with the full proposal. In this pre-proposal phase, it merely serves as inspiration.

No data management plan needs to be supplied during the pre-proposal or full proposal phases. That is only required after granting.
Open Access publishing
Within this funding call, ZonMw requires researchers to make all publications emerging from scientific research that is partly or entirely funded by ZonMw immediately available (without embargo) in Open Access form with an open licence. In this manner, we will share all new knowledge that can contribute to the improvement of public health with respect to COVID-19 as quickly as possible.

You can include the costs for full golden open access publications in the project budget (up to a maximum amount of €5000, specify with “Open Access”) in so far as this is permitted on the basis of European and other legislation. The Open Access journal platform should be registered in the Directory of Open Access Journals. You should mail ZonMw a proof of payment (Article Processing Charges) via openscience@zonmw.nl. Immediate Open Access publication via other routes is also permitted but ZonMw does not make any funding available for this. For questions and more information please contact the Open Access team via openscience@zonmw.nl.

State aid regulation
For this call for proposals, no funding will be granted if that leads or can lead to the provision of unlawful state support. This means that ZonMw will assess the submission against the relevant prevailing laws and legislation.

ZonMw reserves the right, in view of the unusual circumstances under which this call for proposals is being published, to modify the conditions of the call text while the call is open. Any changes will be published via the usual channels and all applicants who have already submitted a proposal will be informed about these changes. Additions and changes submitted before the close of the submission period will count towards the assessment of the proposal. You should take into account possible changes to the exemption decision Services of General Economic Interest, General Block Exemption Regulation or the Amendment to the Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak from the European Commission and the requirements and consequences associated with these.

If licencing will be part of the project, the most recent requirements have been included from the agreements emerging from the trajectory concerning Socially Responsible Licensing.

Consortium and/or sponsor agreement
If there are several project partners, then a final draft of the consortium agreement (approved by all project partners but not yet signed) is required after your project proposal has received a grant. ZonMw will assess and approve the agreements made for compliance with the relevant European law concerning state support and the ZonMw General Terms and Conditions Governing Grants. In this consortium agreement, you should at least specify all items as described under the legal aspects for collaboration on the ZonMw website and in the General Terms and Conditions Governing Grants of ZonMw. A skeleton agreement that you can use for this can be found here as well.

Sponsoring from a third party is permitted under the condition that there is a thorough sponsor agreement in which the role, involvement, possible licence agreements, intellectual property (IP) regulations pertaining to foregcall and background knowledge, and financial obligations of the co-funding partner(s) are described.

ZonMw retains the right to revoke the granting decision if the consortium agreement and/or sponsor agreement (proof of co-funding) have not been realised or are not acceptable under the European law for state support and/or the General Terms and Conditions Governing Grants of ZonMw.

If you have any questions about this, then please contact your IP, contract and/or legal adviser from the valorisation department of your organisation or the technology transfer office (TTO). ZonMw advises you to involve your IP, contract or legal specialist in your proposal as early as possible.
PROCEDURE & TIMETABLE
When you write the pre-proposal, please bear in mind the following points:

- Please read the COVID-19 programme text to ensure that you properly integrate the frameworks of the programme in your pre-proposal.
- Write your pre-proposal briefly and concisely in Dutch or English. The guideline is approximately 4 pages of text (A maximum 3 pages A4 for the proposal, including references and excluding the front page with general information - font type Arial 10 pts).
- The General Terms and Conditions Governing Grants of ZonMw apply. On the conditions and funding page of the ZonMw website information about the medical research ethics committees (MERC) / Central Animal Testing Committee (Dutch acronym CCD), Code for Transparency in Animal Testing and the Code Biosecurity can be found.
- In ProjectNet you must give an indication of the budget requested.
- In the full proposal, you are required to submit a detailed budget together with a justification of the budget as an annex. Make it clear which organisations will realise which activities for which amount. You should preferably state work packages.
- Reserve at least 5% of your project budget for communication and implementation. Include this amount in your budget.
- In the budget, include the (estimated) costs for data stewardship and - if applicable - the use of data services and extra infrastructure during the project. For this you should involve a data steward/expert from your institute who is informed about the approach in this funding call. If it is not possible to estimate the costs, then enter 5% of your project budget for this.
- If your pre-proposal has previously been submitted elsewhere as a proposal, then you can add the previous proposal and (if it was rejected) the possible comments from referees as an annex. However, you still need to enter all the details in ProjectNet, and your pre-proposal should be clear and complete without the optional annexes as well.

The applicant must submit the compulsory annex(es):
- Application form

In addition, you may submit annexes to provide clarification. However, you still need to enter all the details in ProjectNet, and your pre-proposal must still be clear and complete also without the optional annexes.

Assessment procedure
For the information about the procedures for assessing proposals, we refer you to the information on our website and in the procedure brochure applicants (only available in Dutch).

Due to the high urgency of the subject, this programme will work with adjustments to the standard ZonMw procedures. This is because ZonMw, in view of the preamble of the General Terms and Conditions Governing Grants of ZonMw, can deviate from the granting conditions if there are compelling reasons to do so. The deviations will be made known in this call text. Furthermore, individual deviations from the General Terms and Conditions Governing Grants of ZonMw can also be described in the granting decision. In doing so, the safeguarding of due diligence, the Code for Dealing with Personal Interests and the prevailing legislation will nevertheless remain paramount. By submitting, the applicant agrees with the modified procedures described in the call.

1. This call is now being opened for pre-proposals with a clear thematic demarcation (for this, see annexes 1 and 2).
2. From the pre-proposal submitted, the selection committees will select the proposals with the highest chance of being awarded funding, based on the criteria formulated in advance, and will issue an advice as to whether the researchers can elaborate their idea into a full proposal.
3. ZonMw will translate this advice into a positive advice for the selected applicants to elaborate the pre-proposal and a negative advice for all other applicants. A negative advice will not be motivated in the guidance letter.
4. ZonMw retains the right to ask applicants with similar pre-proposals, which in the opinion of the selection committee aim to realise the same objective, to jointly submit a full proposal.
5. In the case of a positive advice, the applicant can submit a full proposal.
6. The process of involving referees will be replaced by the COVID-19 committee members making an initial assessment of all full proposals. Questions arising from this assessment will be submitted with a very short lead time for written or verbal rebuttal to the applicants.

7. During the committee meeting, the full proposal will be assessed for relevance, feasibility and quality, with due consideration to the rebuttal. If the budget available for the focus area is not sufficient to award funding to all eligible proposals, then the committee will produce a ranking proposal based on the criteria formulated in advance.

8. The committee will advise the ZonMw board about the full proposals to be awarded funding.

9. The ZonMw Board will take the granting decision.

Timetable

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<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Deadline submission pre-proposal</td>
<td>14 May 2020, 14:00 hours</td>
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<tr>
<td>Receipt advice from the committee</td>
<td>Around 5 June 2020</td>
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<tr>
<td>Deadline submission full proposal</td>
<td>15 June 2020, 14:00 hours</td>
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<tr>
<td>Receipt comments from referees</td>
<td>22 June 2020</td>
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<tr>
<td>Deadline submission rebuttal</td>
<td>24 June 2020, 12:00 hours</td>
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<tr>
<td>Decision</td>
<td>Around 9 July 2020</td>
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<tr>
<td>Latest starting date</td>
<td>30 July 2020</td>
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More information:
Please keep an eye on the regularly updated page about research into COVID-19 on the ZonMw website.

SUBMISSION

Submission (via ProjectNet)
Pre-proposals can only be submitted via the online submission system of ZonMw (ProjectNet) and in accordance with the guidelines. Please use the application form for your application and add the form as a PDF file as an annex in ProjectNet.

TIPS
- If you have not previously worked with ProjectNet, then you first need to register as a “New user”. See the manual for instructions about making an account.
- For further information, please see the explanations in ProjectNet and Annex 3 of this document.

Before you submit your pre-proposal digitally, we advise you to print off a PDF of your application and to check this for any errors. For example, if you first write your pre-proposal in Word and then copy it to ProjectNet, some characters (such as quotes) might not be converted properly. You can correct such errors in ProjectNet.

Statement of consent submission full proposal
PLEASE NOTE: this is only applicable after the submission of a full proposal.

Immediately after the digital submission of the full proposal, you will be referred to the form “Statement of approval submission of application”. You are kindly requested to enter the following details on this:
- the name,
- Dutch Chamber of Commerce number,
- signature of the responsible administrative body,
- the signatures of the applicants and all legal persons who are stated on the application.

This completed statement of approval should be mailed within 1 week after submitting the application form to covid19@zonmw.nl, stating the submission number that you were allocated.
Substantive questions
For substantive questions please contact: covid19@zonmw.nl. State the focus area and theme. We will then answer your question via email or we will phone you. In the mail, state which telephone number you can be reached on and when you would like us to phone you back.

During the course of the week of 4 May, a telephone number will be published for this call in the ZonMw grant calendar.

Technical questions
For technical questions about the use of the online submission system of ZonMw (ProjectNet) you can contact the service desk: Monday to Friday from 08.00 to 17.00 hours CET: +31 70 349 5178, projectnet@zonmw.nl. In the email, please state your telephone number so that we can call you back if necessary.

Downloads and links:
- Grant rules
- Procedure brochure applicants (only available in Dutch) See also the information on our website: https://www.zonmw.nl/en/news-and-funding/funding/procedure/
- The application form
- Budget (only for the full proposal)

Annexes call for proposals
- Annex 1 Themes and criteria predictive diagnostics and treatment
- Annex 1a More Knowledge with Fewer Animals
- Annex 2 Themes and criteria Care and prevention
- Annex 3 Explanation of pre-proposal submission
Annex 1. Predictive diagnostics and treatment

The aim of this focus area is to provide knowledge for the (further) development of (predictive) diagnostics for the prevention and individualised treatment of COVID-19-related symptoms in the early, acute and recovery phases. It concerns research that is urgently needed into new or existing therapies and their modes of action, and on obtaining insight into, amongst other things, the microbiome, immunity, predictive parameters and individualised treatment.

You should clearly state that there is currently no other research aimed at the same problem. Furthermore, you should make it clear what your proposal adds to current initiatives and studies.

Budget focus area 1
Which amount can be applied for
Please see the section on page 2 of this call.
The intended maximum duration of the project is 24 months. This can be deviated from if a good motivation is provided.

Description themes and criteria
Line 1 of the COVID-19 Programme focuses on predictive diagnostics and treatment. The development of a new vaccine will not be eligible within the programme. Research into the reuse of existing vaccines is, however, appropriate.
In this focus area, a separate budget has been allocated for animal-free innovations, see Annex 1a.

This focus area contains the following overarching themes:

1. Treatment

Research in this theme must contribute to at least one of the following objectives:
- Optimising the (prophylactic) treatment of patients in the early or acute phase in hospitals, nursing homes and primary care.
- Optimising care at intensive care (IC) departments for both patients and professionals, reducing post-IC issues.

The following requirements apply to clinical studies:
The following types of investigator-initiated studies are eligible for funding:

A. RCT (phase 3 type study) with insufficient financial coverage for the complete realisation, urgent additional research questions, increasing the number of participating centres and/or expanding the patient population. For such studies, a mode of action and proof-of-concept data are already known and substantiated. For type A studies, a condition is that the study makes use of the REMAP-CAP platform. The contact person for this is Dr Lennie Derde, email address: l.p.g.derde@umcutrecht.nl. Read more information about this platform. As a result of this, the central coordination of COVID-19 treatment trials will be safeguarded, which also includes central MERC approval, data collection, harmonisation of data and protocols, data analysis, alignment with international initiatives and optimum inclusion allocation of patients. Independent phase 3 clinical studies will not be funded in this trajectory. An exception to this can be made if the study has already started, with a clear substantiation, and it is clear how the data will be shared. A total of €2 million has been reserved for this type of study.

B. Small-scale proof-of-concept studies (phase 1 or 2a type) for new treatment options. For type B studies, a drug for which a mode of action has already been described will be investigated in a limited group of COVID-19 patients so that sufficient indications can be obtained of a positive treatment effect, with enough starting points and preparation for a later randomised evaluation of clinical efficacy. For the programme elements in which a licence is needed, the most recent requirements have been included from the agreements emerging from the trajectory concerning Socially Responsible Licensing.
2. **Diagnostics of infection**

Research in this theme must contribute to at least one of the following objectives:
- Insights in the correlation between diagnostic tests and clinical protection for the purpose of surveillance and obtaining insight into the degree of group immunity;
- Development of strategies with respect to the proper use of diagnostic tests.

This concerns fully developed tests that are deployed for test characteristics in practice and clinically relevant outcomes.

Not appropriate: development and validation of diagnostic tests.

3. **Risk analysis and prognostics**

Research in this theme must contribute to at least one of the following objectives:
- Urgently needed and practically applicable knowledge that is necessary to support the medical action perspective;
- Making urgently needed and practically applicable knowledge available that is required to support choices in policy and practice concerning restrictive measures.

This theme focuses on answering urgent research questions at both the patient and population levels. Answering these questions requires data from case histories and physical examinations, questionnaires, observational studies and clinical research as well as material from biobanks and imaging data. Artificial intelligence (machine learning) will play an important role in developing new predictive diagnostics and prognostics. That requires access to high-quality observational data. For this, the requirements concerning FAIR data will be emphatically tested as described in Section 6 of the call text.

4. **Virus, immunity, immune response and pathogenesis**

Research in this theme must contribute to at least one of the following objectives:
- Making knowledge and models available of the pathophysiology and pathogenesis of the virus in interaction with the human body for the various populations (gender, age, et cetera), which during the pandemic is vitally important for supporting the medical action perspective and/or policy formulation, for example in relation to restrictive measures;
- Making knowledge and models available about the underlying mechanisms of the disease progression and, in doing so, providing possible intervention points for treatment and predictive diagnostics (for example, biomarkers, virus interference);
- Development of animal-free innovations to support the treatment of predictive diagnostics (for this aspect separate budget is available with specific criteria (see Annex 1a)).
Annex 1a. More Knowledge with Fewer Animals

Programme More Knowledge with Fewer Animals (Dutch acronym MKMD) and COVID-19

The programme MKMD aims to develop new innovation in animal-free testing and to encourage the use of existing animal-free innovations. In the area of safety and risk assessments, MKMD also contributes to new methods or models. The ultimate aim is more relevant health(care) research for humans.

By contributing to the COVID-19 funding programme, MKMD wants to encourage the development of animal-free innovations with impact in this research area because, amongst other things, it is often difficult to translate the results from animal models to humans. In the area of theme 4 Virus, immunity, immune response and pathogenesis, we see opportunities to make a contribution to the development of the new or wider application of existing animal-free innovations. Through encouraging animal-free innovations within theme 4, we intend to boost the development of better translatable and more relevant models for humans.

The Dutch Society for the Replacement of Animal Testing (Dutch: Stichting Proefdiervrij) is co-funder of this animal-free testing module within this call for proposals and is making €500,000 available for this.

General boundary conditions for this earmarked budget

- The project is aimed at developing or applying animal-free testing methods and/or models for COVID-19 research;
- The project also satisfies the conditions stated and criteria described above in theme 4 Virus, immunity, immune response and pathogenesis;
- The impact of the project on the use of animal models will be substantiated. The application explicitly states which impact will be achieved with the technique/model and/or service;
- The innovative methodologies are based on human body material (tissues, cell lines or human data);
- The use of laboratory animals, other animals or animal material is not permitted. Although it is not compulsory, use should preferably not be made of foetal bovine serum (FBS) or foetal calf serum (FCS);
- Collaboration between relevant stakeholders: Public-private partnerships (PPPs) are recommended but are not obliged. In the case of projects with equal ranking in the selection procedure, preference will be given to a PPP;
- The involvement of legislative bodies is recommended, if applicable.

If a project is awarded funding, then ZonMw requires the project leaders to cooperate with several visits from employees (and possibly donors) from the Dutch Society for the Replacement of Animal Testing for communication purposes. The Dutch Society for the Replacement of Animal Testing will directly contact the grant recipient concerning publicity in the public domain.

For questions about this element, please contact the programme team via: MKMD@zonmw.nl.
Website: https://www.zonmw.nl/mkmd (English).
Annex 2. Care and prevention

The focus area Care and prevention concerns the following themes:

1. Organisation of care and prevention
2. Care and prevention for vulnerable citizens
3. Transmission and epidemiology

The aim is to make urgent research within three themes directly possible and to initiate this. Various types of research are possible: evaluation pathways, action research, effect studies, facilitation pathways, efficacy research in the case of postponement of treatment/avoidance of care, organisation of care issues, development of epidemiological models, and inventories.

The emphasis must be on obtaining insights and lessons learned that contribute to an improved, substantiated approach towards the current pandemic and to the safeguarding of these improved approaches and processes in the care system of the future. Collaboration between researchers, disciplines and relevant stakeholders is the starting point for efficiently obtaining these insights and realising a satisfactory preparation for a future pandemic.

THEMES
Activities for which funding can be requested must fit within the themes stated below:

I. Organisation of care and prevention
COVID-19 has an impact on the entire care system: it touches upon the entire care pathway from healthy citizen to patient and vice versa. All sectors in healthcare experience the effects of this: citizens/patients as well as care providers and the actual organisations. This theme therefore focuses on all these sectors. So not just (acute or postponed) hospital care, but also prevention, disabled care, home care, paramedical care, youth (health) care, elderly care, nursing home care, GP care, mental healthcare or palliative care. Where possible, the knowledge-chain-wide approach is desirable. How can these sectors learn from each other, align with each other better and collaborate better during and after the crisis situation? At the same time, certain developments require a specific, sector-specific approach.

The subjects that proposals can be submitted for are:

- National and regional collaboration:
  Positive learning effects of existing and initiated collaborations during the crisis situation. Insights into who, or what, ensures coherency and the conditions both within the acute and non-acute care chains and between both chains.

- Remote care and prevention:
  Further development and evaluation of e-Health for quality, effectiveness, risks and applicability: integration of telemonitoring (including self-monitoring) in remote prevention, treatment and supervision (in the various forms of care) for both the citizen/patient and the care professional.

- Care for care professionals:
  Further development of instruments to support personnel both professionally and psychosocially, during and after the national health crises. In addition, insights into the effect of modified working methods to prevent infection for personnel and organisation.

- Effects of pandemic and measures:
  Provide insight into (in)direct effects of the pandemic and measures on care and prevention. Possible directions are effects and size of postponed care, care avoiders, appropriate care and care that has been postponed or modified due to the redeployment of care or preventative measures. It is also aimed at issues such as quality of life versus quality of care and the relationship between informal and formal care.

- Aftercare for coronavirus patients and their family:
  Support of coronavirus patients and their family after recovery, but also towards the palliative phase and bereavement care.

II. Care and prevention for vulnerable citizens
Vulnerable citizens are citizens with limited health skills or physical or psychological conditions. They are affected more than others by the COVID-19 pandemic and the consequences of the measures taken.
It could concern mental consequences as well as risks in the vulnerable home situation, both in the short and longer term. Consequences that could be investigated are: no visiting arrangements in nursing homes (including arrangements for people in the palliative phase), changes in the care or support at mental health care institutions, youth (health) care, institutions for people with a physical and/or mental disability, for elderly people living at home, and the increased risk for people with lung conditions or young people who are growing up in poverty or an unsafe home situation. Loss of necessary care from the medical crèche, special education, day activities centre, home care and outpatient support.

The subjects that proposals can be submitted for are:

- **Groups with a direct increased risk and vulnerability:**
  Providing insight into the direct negative effects of preventive measures and preventing or reducing negative effects of the measures among increased risk groups due to a condition or limitation or the severe progress of the COVID-19 disease and/ or increased sensitivity for the effects of the measures against COVID-19.

- **Freedom-restricting measures in intramural and extramural settings:**
  Providing insights into dealing with the effect of freedom-restricting measures in terms of quality of life and quality of care for both the citizen/patient and the care professional. This concerns nursing home care, care for the handicapped, mental health care, psychiatry, secure institutions for young people and extramural palliative care. The danger of loneliness and lack of social interaction, also in the home situation, such as for elderly people and young adults.

- **Medium- and long-term effects:**
  Effects of the measures for young people and vulnerable families. Risk of an increase in social inequality and physical and psychosocial health.

- **Medical ethical issues:**
  Access to care for vulnerable groups in the case of capacity issues, allocation systematics and issues concerning personal protective equipment (such as facemasks) and measures.

### III. Transmission and epidemiology

Insights into epidemiology and transmission and the effect of the measures taken are needed to predict the progress of the COVID-19 pandemic and decisions about which measures to support. For this, further research is needed into transmission routes as well as studies into behaviour and to what extent different population groups adhere to the measures.

The subjects that proposals can be submitted for are:

- **Spread of the virus in the most affected areas or population groups:**
  How to facilitate infection-avoiding behaviour, how much transmission occurs from asymptomatic cases, estimating import from abroad, risk estimates for groups?

- **Feasibility, effect and efficacy of various measures:**
  Feasibility, effect and efficacy of public measures and specific, organisational measures in practice, including source and contact research into the progress of infections. Estimating the effects of measures on disease burden in terms of quality-adjusted life years (QALYs) and disability-adjusted life years (DALYs). This also includes comparisons of the efficacy of measures between countries and regions.

- **Role of and prevention of underlying conditions on the COVID-19 pandemic:**
  Research into the role of underlying conditions on the COVID-19 pandemic, and also research into the potential gain due to primary prevention (healthy lifestyle) and effect on the progress of virus infections and pandemic.

- **Improvements in the following of measures and/or compliance:**
  How can adherence to measures and/ or compliance be improved; with a view to the variation between groups due to limited possibilities to comply and the lack of easily accessible information.
Annex 3 Explanation of pre-proposal submission

Pre-proposal general
The pre-proposal consists of several parts:
A. The fields to be completed in ProjectNet;
B. The completed application form (PDF), which is sent as an annex in ProjectNet.

The pre-proposal (including annexes) should be written in English. Applications in Dutch are also permitted and will also be taken into consideration.

A. ProjectNet

https://projectnet.zonmw.nl
Please note: there are two different links for submitting a pre-proposal. Use one of the two and not both.

- For pre-proposals within focus area 1: Predictive diagnostics and treatment use this link.
- For pre-proposals within focus area 2: Care and prevention use this link.

Project members
- In ProjectNet, you can enter a maximum of 10 project group members. In any case you are required to enter the following three project group members:
  o Main applicant: bears final responsibility for the proposal; during the application process this is the contact person for ZonMw.
  o Project leader/official secretary: is responsible for realising the project; during the realisation of the project this is the contact person for ZonMw.
  o Official representative: person who can represent the legal or statutory entity.
  NB: main applicant and project leader/official secretary can be the same person.
- For the composition of your project group, please bear in mind the right expertise needed for a successful realisation of your project.

Summary
- In this field in ProjectNet, you enter the English/Dutch summary.
- Maximum 2000 characters.
- Make use of the following headings:
  o RESEARCH QUESTION
  o URGENCY
  o HYPOTHESIS
  o ACTION PLAN

Budget
- Please complete the table (PLEASE NOTE: the budget amount requested in the full proposal may deviate by no more than 15% from the budget requested in the pre-proposal. If the deviation is greater than 15% then you need to provide a detailed explanation for this).
- Please state any possible co-funding including the amount and the status of the co-funding pledge.

B. Application form
You can download the application form here.

General instructions
- Please enter something in all text fields.
- Please make use of the headings stated in the application form.
- There is no limit on the number of characters and/or words per text box, but the total size of the application form is limited to a maximum of three (3) A4 pages (including literature references and excluding the title page with "basic details").
- Substantive annexes can, if relevant, be uploaded separately in ProjectNet.
- It is also possible to add figures in the text boxes.
You should use the font Arial (size: 10 points).

We advise you to check your application for mistakes before you upload it as a PDF file. During the conversion from Word to PDF, figures and/or some characters and symbols may not be converted properly.

Pre-proposal (total max. three (3) pages A4 – excl. title page, incl. literature references)

1. Problem posed and objective(s)
   - Please describe the problem posed and the urgency of the research proposal.
   - Clearly state the objective(s) of your project.

2. Action plan
   Describe the action plan of the project as tangibly as possible. Clearly substantiate the choices made.

3. Project feasibility
   - Provide a clear time planning for the project and argue why the project can be completed on time within the project duration.
   - Give a realistic estimation as to when the first results are expected.

4. Relevance for everyday practice
   An important granting criterion is that the proposal clearly states how the research is relevant for everyday practice. Substantiate the relevance based on the applicable criteria stated in the call for proposals and ensure all criteria are addressed.

5. Participation of stakeholders (e.g. patients, care professionals, et cetera)
   Describe which parties are involved in your project and how.

6. Literature references
   State here the references that substantively support your proposal and avoid summaries of publications from your project group (members).
Vooruitgang vraagt om onderzoek en ontwikkeling. ZonMw financiert gezondheidsonderzoek én stimuleert het gebruik van de ontwikkelde kennis – om daarmee de zorg en gezondheid te verbeteren.

ZonMw heeft als hoofdopdrachtgevers het ministerie van VWS en NWO.