



Vacancy: Expert Mathematical Modelling

Unit: SRS

Reference: (ECDC/AD/2017/SRS-EMM)

Applications are invited for the above Temporary Agent post at the European Centre for Disease Prevention and Control (ECDC).

Job description

The Jobholder will report to the Group Leader General Surveillance, while working closely with the Vaccine-Preventable Diseases Programme (VPD).

The jobholder will be responsible in particular for the following areas of work:

Core modelling support

- Identify critical knowledge gaps for infectious disease prevention and control that can be addressed by applying modelling methods;
- Support the establishment of an ECDC modelling coordination group involving experts across Units and Disease Programmes in order to steer projects with a mathematical modelling scope;
- Establish partnerships with existing modelling networks and experts within Member States public health institutes and academies;
- Develop a framework for outsourcing mathematical modelling services as needed;
- Contribute to other activities of ECDC, as required, in his/her field of expertise.

Vaccine preventable diseases

- Lead the design and application of mathematical models to address public health questions in the area of VPD;
- Work closely with epidemiologists, surveillance, and scientific advice experts across ECDC, particularly in the area of VPD, in order to acquire knowledge of available data that can be used in the modelling design process;
- Initiate and develop a collaboration network with modellers, health economists and technical experts across the EU/EEA Member States leveraging the VPD Network, with a view to establish regular exchange, foster coordination and cross-fertilisation of research;

- Propose methodological approaches for mathematical modelling and economic evaluations that can complement the development of ECDC's outputs in the area of scientific advice on immunisation and vaccine-preventable diseases;
- Plan, draft, and project manage service contracts with external contractors in liaison with the procurement and finance sections at ECDC;
- Keep abreast of scientific and policy developments especially in the area of immunisation and vaccine-preventable diseases.

Qualifications and experiences required

A. Formal requirements

In order to be an eligible candidate you need to fulfil a set of formal requirements. These requirements are:

- A level of education which corresponds to completed university studies of at least three years attested by a diploma¹
- Thorough knowledge of one of the languages of the Communities and a satisfactory knowledge of another language of the Communities to the extent necessary for the performance of his/her duties²;
- Nationality of one of the EU Member States or of Norway, Iceland or Liechtenstein;
- To be entitled to his or her full rights as a citizen³;
- To have fulfilled any obligations imposed by the applicable laws on military service;
- Meet the character requirements for the duties involved; and
- Be physically fit to perform the duties linked to the post.

B. Selection criteria

To qualify for this post we have identified *essential criteria* with regard to *professional experience* and *personal characteristics/interpersonal skills*. These are:

Professional experience/knowledge:

- Degree in Statistics, Applied Mathematics, Mathematical Modelling or related field;
- At least 5 years professional experience, following the award of the diploma, of which at least 3 years' experience related to the duties outlined in the job description;
- Proven experience in the design and application of mathematical modelling to diseases and ability to use coding language to solve modelling problems;

¹ Only diplomas and certificates that have been awarded in EU member states or that are the subject of equivalence certificates issued by authorities in the said Member States shall be taken into consideration

² In addition, in order to be eligible for a promotion through an annual promotion exercise the staff members have to have a working knowledge of a third EU language, as described in the applicable Staff Regulations and Implementing Rules.

³ Prior to the appointment, the successful candidate will be asked to provide a certificate from the police file to the effect of non-existing criminal record.

- Knowledge and experience in health economic evaluations, preferably in the area of vaccination;
- Experience in managing large scale projects and experience in coordinating the input of experts from across different disciplines;
- Proven skills in communicating scientific results orally and in writing to different audiences;
- Excellent level of English, both written and spoken.

Personal characteristics/interpersonal skills:

- Strong ability to work independently and manage responsibilities;
- Strong inter-personal skills and ability to work well in team;
- Very good analytical skills;
- Excellent ability to work under pressure and against tight deadlines, prioritise demands and manage expectations;
- Being quality-driven and service-minded.

We have also identified experiences and skills that are advantageous for this post. These are:

- Public health background (e.g. relevant degree, EUPHEM/EPIET training programme or training in infectious diseases modelling);
- Good understanding of ECDC's role within the EU agencies and specifically in the field of public health in the EU/EEA;
- PhD in Mathematical Modelling;
- Knowledge of additional EU languages.

Depending on the number of applications received, the selection committee may apply stricter requirements within the aforementioned selection criteria.

Appointment and conditions of employment

The jobholder will be appointed on the basis of a shortlist proposed by the Selection Committee to the Director. This vacancy notice is the basis for the establishment of the Selection Committee's proposal. Candidates may be requested to undergo written tests. Candidates should note that the proposal may be made public and that inclusion in the shortlist does not guarantee recruitment. The shortlist of candidates will be established following an open selection process.

The successful candidate will be recruited as a Temporary Agent, pursuant to article 2f) of the Conditions of Employment of Other Servants of the European Communities, for a period of five years which may be renewed. The appointment will be in grade **AD 5**.

Applicants should note the requirement under the EU staff regulations for all new staff to complete successfully a probationary period.

For any further information on contractual and working conditions, please refer to the Conditions of Employment of Other Servants of the European Communities, which are available at the following link:

http://ecdc.europa.eu/en/aboutus/jobs/Documents/Staff_Regulations_2014.pdf

The place of employment will be Stockholm, where the Centre has its activities.

Reserve list

A reserve list may be created and used for recruitment, should similar vacancies arise. It will be valid until 31 December of the same year as the application deadline and may be extended.

Application procedure

To apply please send a completed application to Recruitment@ecdc.europa.eu clearly indicating the vacancy reference and your family name in the subject line of the email.

For your application to be valid you must complete all required sections of the application form, which should be submitted in Word or PDF format and preferably in English⁴. Any incomplete applications will be considered invalid.

The ECDC application form can be found on our website here:

<http://ecdc.europa.eu/en/aboutus/jobs/Pages/JobOpportunities.aspx>

The closing date for the submission of applications and further information regarding the status of this selection procedure, as well as important information regarding the recruitment process, is noted on our website and can be found using the above link.

Due to the large volume of applications received, only candidates selected for interviews will be notified.

⁴ This vacancy notice has been translated into all 24 official EU languages from its English original. As the language of day-to-day operations in the Agency is generally English, ECDC prefers to receive the application in English.