

## Evaluation report

Evaluated point	Grade	Comments
Scientific impact of research	Good	<p>We visited the National Institute of Health Development (NIHD) on Wednesday May 17th 2017. Basis of the evaluation was the self-report, the very comprehensive and detailed PowerPoint slides and comprehensive oral presentation by 3 leading NIHD employees. Finally, the “wet” lab areas, sample storage rooms and cell culture facilities were shown to the committee. We met with the Director General, Dr Annika Veimer, and the Director of Research, Dr Toomas Veidebaum, as well as staff and one PhD student.</p> <p>Focus in the following has been on research that has been initiated, performed and presented independently by NIHD.</p> <p>NIHD is a large entity with a long and successful track record in collection, management and analysis of national health statistical data. The institution was established in 2003 as a merger between an experimental institute (clinical medicine), The Estonian Health Education Center, and the Training Centre of Public Health and Social Work. The NIHD has an outspoken vision to do outstanding research integrated in development to provide evidence-based rationale in decision making.</p> <p>Their remit includes not only the collection and management of data, but analysis of these data to inform public health policies at legislative level and the implementation of evidence-based interventions. This also includes the design and implementation of public health campaigns aimed at health professionals as well as the general public.</p> <p>We gained the impression of a strong and well-organised research component in addition to the routine duties of management of the national health statistics. Staff emphasised their freedom to pursue questions of academic as well as practical relevance. Research activities presented comprised 39 projects including 6 EU projects, grants from ministries and 3 institutionally-funded grants and engaged 9 PhD students. We were presented with some examples of individual research lines that had evolved at NIHD, including zoonoses, hepatitis, hantavirus, immunology of tumour progression and two unique family cohorts followed since 1998 and 2007 respectively.</p>

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		<p>The NIHD puts emphasis on the highest research impact in community-based projects that e.g. aimed at intervening with physical activity of schoolchildren, and early alcohol abuse detection. Thus no basic or innovative research was mentioned or promoted. Reportedly there are 40-60 peer-reviewed publications annually. There seems to have been a recent upsurge in the output of publications especially since 2010 with a doubling, but we are unsure of the reasons for this. At least some of these publications seem to emanate from large-scale pan-European projects funded by the EU: these will undoubtedly be highly cited but the impact is less apparent. With a scientific staff just below 40 this yields on average one publication per year per employee which appears as a good output for an institute with a primarily service function.</p> <p>We conclude that impact of research at NIHD is good</p>
Sustainability and potential of research	Very good	<p>The physical surroundings and infrastructure appeared up to date, there was ample space in the regions we saw, buildings were new or newly renovated, and laboratory facilities were renovated. The laboratory facilities including the classified areas were of good standard and space was available. Emphasis was put on security – both data protection and physical entry. The staff is equipped with up to date computers and with the relevant statistical software complying with international standards.</p> <p>The main research directions reported were described in quite general terms and had a significant overlap with the duties expected by the NIHD and beyond a few lines regarding the Estonian zoonotic infections, the Chernobyl cohort and cancer immunology, the self-report and the interview did not present clear strategy to promote independent research lines based on original ideas which definitely would be possible and expected based on the many registries. Most projects include in their titles “survey” and “monitoring”</p> <p>An appendix submitted to the Research Council has been available to reviewers “Development plan for the National Institute for Health Development 2016-2020”. We focused attention on the research parts which did not differ much from those put forward in the self-report. The plan conveys the self-perception of NIHD which is a means to extend healthy life in Estonia. This is best accomplished by surveillance and by government information. The perception is very defensive and is to respond to “the needs and expectations of the Society”.</p>

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		<p>There is no independent formulation of own research strategy.</p> <p>Research staff has grown by almost 50% since 2010 and comprise 36 full time positions (40 employees). 110 out of ca 140 total employees have university master or PhD degrees. NIHD does not run doctoral programs, and thus PhD students based at the Institute are supervised together with university departments.</p> <p>Research is inseparable from much of the data analysis that the Institute is required to carry out, with publication being only the last stage. It was noted that a substantial number of reports were produced annually, but it was not clear how many of these were, or could be, translated into academic publications. Research funding has been secured to allow participation in various trans-national European comparisons.</p> <p>The section of the written submission relating to the sustainability and potential of R&amp;D is long – making 13 separate points – but lacks detail and does not clearly convey the Institute’s strategic direction. This contrasts with the oral presentation of the Director General, who gave a much stronger sense of the future shape of the Institute.</p> <p>Based on the above it is concluded that sustainability and potential of research is very good.</p>
Societal importance of research	Very good	<p>NIHD had a clear mission. Their activities should “result in evidence-based health policy where people behave more health-consciously and shape their living environment through health choices aimed at increasing healthy life years”.</p> <p>The nature of the work of the Institute has substantial societal impact by its very nature. Register-based epidemiological research is of undisputable value for the population. Such studies are based on country-wide and long-term databases. Longitudinal cohort studies also provide the society with important health knowledge. Prevention effort and measures are important for reducing harmful use of alcohol and drugs.</p> <p>The major part of the work of the Institute is related to public health, and it is not apparent why matters relating to physical activity are the responsibility of a different ministry: this somewhat arbitrary fragmentation is not conducive to a coherent program of activities in this crucial area.</p>

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		<p>This is true across a wide range of public health areas, but seems to be particularly true in the areas of drug abuse and sexual transmitted diseases (STD). This extends to the initiation and evaluation of public health campaigns.</p> <p>Moreover, the continuous education of life science individuals within epidemiology/biostatistics insight and competence is of great value to sustainable development with evidence-based decision making in Estonian health policy system.</p>
<p>Scientific basis in the field is sufficient to conduct doctoral studies. (This question should be answered only if: a) institution being evaluated is conducting doctoral studies and; b) The field being evaluated is proposed to grant positive evaluation. If these conditions are met then: a) If the level of scientific basis is sufficient for conducting doctoral studies in every structural unit being evaluated, then the answer should be „yes“; b) If the scientific basis is not sufficient in some structural units, then those units should be listed.)</p>		<p>There is an active research community that includes not only permanent staff of the Institute but also 9 PhD students and 2 post-doctoral fellows. The NIHD offers the scientific community a rich source for interesting and relevant PhD studies. The staff has well qualified supervisors and some laboratory facilities are present but only sparsely equipped beyond specific project needs. From the one PhD student whom we saw, we learned that initiative and bottom-up ideas were welcomed and the student with a background in psychology had developed her study program independently.</p> <p>The student whom we had the opportunity to meet was a confident and articulate young lady who conveyed a favourable impression of the research environment. She indicated that most PhD students were also junior research staff who had routine duties within the Institute in addition to working towards completion of a doctoral thesis: in her case at least, the work was complementary to her research and she viewed these activities as being complementary rather than conflicting. She was also engaged in some teaching duties and again saw this as a positive activity: while the experience may be useful, there must be a concern that the net effect of these distractions is to extend the already long time taken for completion of PhD programs.</p>

## Summary assessment

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<p>Areas of special note as appropriate (Where necessary indicate sub-fields, assessment criteria, and/or structural units which, in the committee's opinion, were of a notably high level.)</p>		<p>The international collaboration is of extreme importance for health statistics and should be further encouraged.</p>
<p>Areas in need of improvement as appropriate (Where necessary indicate sub-fields of the field being evaluated, assessment criteria, and/or structural units which, in the committee's opinion, revealed significant shortcomings.)</p>		<p>It is important that it is possible to perform research in wet laboratories. More attention to this part of NIHD's activity is needed.</p>
<p>Assessment proposal to the Minister of Education and Research</p>	<p>To grant positive evaluation</p>	<p>The committee recommend to grant positive evaluation</p>

# Feedback

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<p>Feedback for institution (This question should be answered only if the institution asked for feedback from the evaluation committee in the self-report (about up to three specific areas of R&amp;D which it finds to be currently important, e.g., related to its development plan).)</p>	<p>Regarding the question on “how to improve the channelling of research results to the public health policy-makers” we have the following comments: There are two ways to do so - direct and indirect. NIHD is already using the indirect route through publication of brochures and increased announcement and interaction via internet (e.g. home page). The direct route to the policy makers goes through activation of the population via newspapers, TV, and patient organisations. These efforts will in their turn put pressure on the policy makers. However, we don’t know how active a public employed director can be in the public domain.</p> <p>Regarding “how to convince the research funding bodies that other indicators than just publications in “Science” and “Nature” count in the evaluation of applications for funding” we have the following comments. Bibliometric measures cannot stand alone. An application must be assessed in the context of what it applies for and the evaluators should know which journals are suited for the type of research performed. However, publication activity is the motor and final step in the scientific process that should assured.</p>
<p>Suggestions for unit, institution, state etc (As appropriate, committee can give additional feedback for the structural unit, the institution, or the State (please specify whom feedback is directed to) according to the directive assessment criteria for regular evaluation (article 7).</p>	<ul style="list-style-type: none"> <li>• More focus on developing an independent research profile in order to exploit better the huge potential buried in the registries.</li> <li>• It is important that it is possible to perform research in wet laboratories. More attention to this part of NIHD’s activity is needed.</li> <li>• Have higher expectations of research staff in terms of research activity and publication, and try to develop independent research lines parallel to those set by legislation/politicians.</li> <li>• More collaboration with other institutions e.g. Estonian Genome Centre to promote research output and originality.</li> <li>• Assure continuous uptake of PhD students, have supervisor expectations to research staff.</li> <li>• Continue to teach undergraduates in order to get exposure and recruit students.</li> </ul>