74
NRP

Smarter Health Care
National Research Programme

Call for proposals

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SCHWEIZERISCHER NATIONALFONDS
FONDO NAZIONALE SVIZZERO
SWISS NATIONAL SCIENCE FOUNDATION

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Content

What are National Research Programmes (NRPs)?

Research carried out by National Research Programmes consists of research projects that contribute to the solution of contemporary problems of national importance. Under the provisions of Article 10, paragraph 2, of the Federal Act on Research and Innovation of 14 December 2012 (version of 1 March 2014) the Federal Council selects the topics and foci to be researched in NRPs and mandates full responsibility for implementing the programmes to the Swiss National Science Foundation.

The Federal Ordinance on the Federal Act on Research and Innovation of 29 November 2013 (version of 1 January 2014, art. 10, par.2 Bst. c. V-FIFG) describes the NRP funding scheme as follows:

„[1] The National Research Programmes (NRPs) of the Swiss National Science Foundation (SNSF) are a means of generating and conducting coordinated research projects that pursue a common goal.

[2] Topics of research are generally appropriate for National Research Programmes if:

a. Swiss research can make a significant contribution to the resolution of the problem;

b. solutions require research contributions from multiple disciplines;

c. research on the problem can be expected to produce research results that have practical applications within a five-year period.

[3] In exceptional cases, an NRP may also be used for the targeted creation of additional research potential in Switzerland.

[4] The following criteria are also taken into consideration in setting forth the topics of National Research Programmes:

a. the programmes can provide the scientific basis for decision-making by the government and administration;

b. the programmes can be conducted with international collaboration.“

1. Summary

The Swiss health system is often considered to be among the best health systems worldwide as some indicators such as high life expectancy, number of health professionals, and patient satisfaction show. However, there are also challenges. The aging of the population and the growing prevalence of chronic diseases requires some shift from a health care system that is well prepared to deal with acute illnesses to prevention and health promotion and to more long-term, patient-centered and integrated care. Health services research is a dynamic area of research that is well suited to addressed these challenges and support decision makers for making evidence-based decisions. Health services research studies how to deliver preventive and therapeutic health care services in an effective, safe and cost-effective way to a population.

The NRP 74 "Smarter Health Care" aims at supporting innovative health services research that addresses concrete challenges of chronic disease care in Switzerland but that also contributes to the international scientific literature. The goals of the NRP "Smarter Health Care" are to provide insight into health care structure and utilization in Switzerland, and into ways to improve health outcomes with a particular focus on prevention and treatment of patients with (multiple) chronic conditions. In addition, and with a more longterm perspective, the NRP aims to raise awareness of the current weaknesses of health care data in Switzerland and to contribute to improved health data. Thereby, health services research can contribute to improvement in diagnostic, preventive and therapeutic services und their utilization. Finally, the NRP aims to create a strong community of health services researchers that conduct world-leading research in this area.

The first module of NRP 74, “Countering under- and overuse to improve allocation of resources", includes methods development and studies to assess under- and overuse of health care services for patients with (multiple) chronic conditions as well as the evaluation of ways to minimize under- and overuse of health care services. The second module, "Coordination and collaboration among health care professionals", includes studies on the collaboration within and across medical and long-term settings, on patient flow along continuum of care and on novel health care and reimbursement models for medical and long-term care. The third module, "Caring for patients with multiple chronic conditions", includes research on health outcomes and associated costs of interventions and health care delivery systems, measures for quality performance, patients experience of different delivery systems and novel approaches for prioritizing health care services. These modules enable researchers to study the health care situation in Switzerland from different scientific and problem-oriented perspectives. Because the research areas are not mutually exclusive, it is possible to submit projects that span across two or three modules. The NRP "Smarter Health Care will be relevant for decision makers at an individual level (patients with chronic conditions and health care professionals), at an institutional level (in- and outpatient health care services, long-term care facilities) and at the cantonal or federal level (politicians, health authorities). Its results will provide a knowledge base to make evidence-based health care and public health decisions that are in line with the values and preferences of the Swiss population.
The total funding of NRP 74 is CHF 20 million for the projects with duration up to 48 months. On 24 June 2015, the Federal Council approved the new National Research Programme "Smarter Health Care" (NRP 74) and mandated the Swiss National Science Foundation (SNSF) to conduct the NRP.

2. Introduction

Background

Health systems encompass a wide range of infrastructures and services to promote health, prevent, and treat disease for entire populations. The Swiss health system is often considered to be among the "best" health systems worldwide. Some indicators such as high life expectancy, low infant mortality, number of health professionals, access to care and patient satisfaction with care indeed indicate that Switzerland provides excellent health care. However, there are also challenges. The aging of the population and the growing prevalence of chronic diseases requires some shift from a health care system that is well prepared to deal with acute illnesses to prevention and health promotion and to more long-term, patient-centered and integrated care. Coordination of health care services (both for prevention and treatment) over time, and in particular coordination of transitions between care settings and collaboration among health care professionals, is becoming more important. Health literacy and information management are currently undergoing changes with the wide availability of health-related information on the Internet and the possibility of education and social interaction that goes well beyond the classic patient-physician relationship. In addition, the Swiss health system is one of the most expensive systems worldwide. The challenge is how to use resources for the best possible patient outcomes and health of the population.

These (and more) challenges have led to the common notion that health services research needs to be strengthened in Switzerland. Health services research is important to better understand the current strengths and weaknesses of the Swiss health system, to develop and test solutions addressing the above challenges. The barriers and facilitators for the implementation of effective solutions should also be tested. Furthermore, the evidence base needs to be further developed upon which decision makers including healthy and sick people, policy makers, providers and payers can make decisions that are informed and based on values and preferences.

Health services research studies how to organize, manage, and finance health systems in order to deliver health care services accessibly, safely, effectively, efficiently, and user-oriented. Key areas of health services research include (1) variation of use, especially under- and overuse of health care services, (2) accessibility of preventive and health care services for the population and specific groups defined by sociodemographic or other characteristics, (3) comparative outcomes of clinical or preventive interventions, or of different ways to deliver and coordinate health care services, (4) needs, values and preferences of populations (or subgroups thereof) on what kind of care is preferred and (5) cost-effectiveness of health care services.

To address these questions health services research is commonly organized as a multidisciplinary effort that includes researchers from, for example, medicine, epidemiology, nursing, psychology, statistics, sociology, law, ethics, bioinformatics and economics. Increasingly, members of the population and other stakeholders such as providers, payers, industry and politicians are involved at various stages from identification and prioritization of research questions to transfer of scientific knowledge into practice.

National and international research context

Health services research has a longer tradition in countries such as the USA, the Nordic countries or the UK than in Switzerland. For example, the Dartmouth group pioneered the measurement of regional variability of health care delivery and of understanding reasons for under- and overuse of preventive and health care services. Or, the Nordic countries have a long tradition of patient and population registries that provide important data for evidence-based public health and health care. Health services research has also conducted randomized trials (e.g. RAND experiment in the 1960s). High-quality health services research has become possible in these countries because of availability of data from real-world practice settings, often from health care encounter or claims files. If health data are accessible, researchers can assist in making them more and more valid and informative over time. Thereby, gaps and weaknesses of the data can be recognized and fixed.

In Switzerland, the situation is somewhat different. Although some questions relevant to the health system have been addressed in Switzerland, important data are not routinely collected (e.g. longitudinal data on health care utilization or basic epidemiologic data on some chronic diseases) or are not accessible for research (e.g. cost data). When data are accessible (e.g. from population-based cohort studies or from the Federal Office of Statistics) they often need to be linked across databases, which is challenging technically (in the absence of unique person identifiers) and sometimes prohibited legally. A group of Swiss scientists and public health specialists published a data manifesto in 2013 where they addressed these issues and proposed to create a learning cycle where high-quality health data become gradually available through improved availability and accessibility of data as well as data linkage and harmonized data collection.[1]

There are several trends and tensions in health care and in health services research that need particular attention. One is that more and more attention is being paid to coordination and continuity of care. Patients with (multiple) chronic conditions, for example, receive outpatient and hospital-based care as well as support from social and community services over the course of time and go through transitions. Coordination of such care is challenging and puts patients at risk of under- and overtreatment if done poorly. Some countries have developed and adopted care models that take into account the complexity of chronic disease care and an efficient allocation of health care professionals. For example, nurse practitioners, physician assistants and specialized care nurses take care of specific tasks while physicians focus on tasks that require a physician. For Switzerland it is important to learn whether and why some of these international practices can be adopted and adapted to the Swiss setting (e.g. transition between settings) in some regions and why there is hesitation to adopt some other practices that have been established elsewhere many years ago.

Awareness is growing that the results from research should be as applicable as possible to real-world practice settings in order to be informative for decision-making. Health services research is, because of its focus on real-world health care practice, well suited to deliver insights that are applicable to practice. The populations or interventions studied in health services research are those commonly encountered in practice settings. For instance, these real-world study populations are often quite broad in terms of characteristics and risks for disease and outcomes so that an overall estimate of a treatment effect may actually be difficult to be applied to individuals or groups of patients. It is sensible to expect that some preventive or therapeutic interventions have different benefits and harms in subgroups of the heterogeneous real-world population. Thus the study of subgroup effects and effect modifiers, respectively, is important in order to recommend interventions with an optimized benefit-harm balance to individuals. This tension between broad

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[1] http://www.public-health.ch/logicio/client/publichealth/file/konferenz/d_Manifest_Gesundheitsdaten_Druck.pdf

study populations and the need of individual or at least subgroup-specific effects calls for large data sets that small-scale studies may not offer. Advanced methods to validly address research questions based on large, observational studies, special types of experiments as well as methods for synthesis of multiple studies have become available.

Finally, the advances in information technology and in epidemiological and statistical methods offer opportunities to work closer to real time and real world practice. Health services research should be based on data that reflect current practice. Too often randomised trials and observational studies provide results that are quickly outdated. Various aspects of health care are time-sensitive because new technologies or interventions become available, because of human or financial resources changes (e.g. shortage of primary care physicians or nurses) or because of changes in legislation or reimbursement schemes (e.g. DRGs). While long-running prospective studies are important for major decisions in healthcare, which may be less time-sensitive, registries, national health statistics, the internet (e.g. search engines, social media) and data warehouses (e.g. health care insurance) are becoming more and more important resources to address questions in health services research. Pragmatic trials with short duration can be useful for some questions in health services research, too.

These considerations are not meant to be complete but they should highlight that health services research is a dynamic area of research with high relevance to the public. The NRP 74 Smarter Health Care aims at supporting innovative health services research that addresses concrete challenges in Switzerland but that also contributes to the international scientific literature.

Practical significance

It is the very nature of health services research to be of high practical significance. At the same time, a positive impact of health services research can only be expected if it is based on well-developed concepts, rigorous methods and lessons learnt from prior research studies. The NRP 74 Smarter Health Care will support health services research that studies the current practice of health care in Switzerland with a particular focus on patients with (multiple) chronic conditions. The NRP 74 will also support research that develops and evaluates current and novel ways of delivering health care in real world practice settings. Furthermore, the NRP 74 will build a solid foundation for future health service research.

Target audience of the results

The target audience of the NRP 74 Smarter Health Care is wide because of the practice significance of health services research. More specifically, the results addressing "Countering under- and overuse to improve allocation of resources" (Module 1) will be relevant for the Swiss population, politicians at the national and cantonal level, health authorities of the Confederation, cantons and municipalities, health care providers and payers. The results from Module 2 "Coordination and collaboration among health care professionals" will be particularly relevant for health care professionals (physicians, nurses, practice assistants, hospital and practice managers), policy makers, health authorities and insurance companies. The results of research on "Caring for patients with multiple chronic conditions" (Module 3) will be important for patients with chronic conditions and their proxies, for health care professionals and institutions of pre-, post-graduate, and continuing education, for politicians at the national and cantonal level, health authorities of the Confederation, cantons and municipalities, health care providers and payers.

3. Goals of NRP 74

Scientific goals

The main goals of the programme will be to provide insight into health care structure and utilization in Switzerland, and into ways to improve health outcomes with a particular focus on prevention and treatment of (multiple) chronic conditions. In addition, and with a more longterm perspective, the NRP aims to raise awareness of the current weaknesses of health care data in Switzerland and to contribute to improved availability, accessibility, linkage and comparability of health data. Thereby, health services research can contribute to improvement in diagnostic, preventive and therapeutic services und their utilization. Finally, the NRP aims to create a strong community of health services researchers that conduct world-leading research in this area.

Projects of the NRP 74 should contribute to a knowledge base in at least one of the following ways: First, projects improve knowledge about current under- and overuse of diagnostic, preventive and therapeutic health care services and how the different players of the Swiss health system interact. Second, projects contribute to the understanding of how health care utilization and delivery in Switzerland can be optimized for the future based on robust evidence derived from studies using rigorous and ethical methods within the context of the Swiss health care system and based on the values and preferences of the Swiss population. Third, the projects of the NRP 74 contribute to knowledge about how to get from the current status of health care utilization and delivery in Switzerland to health care that meets today's and tomorrow's health needs of the Swiss population.

Goals of knowledge transfer

The practical uses of NRP 74 Smarter Health Care are as follows: Provision of a knowledge base to assist the authorities, politicians, health care professionals, private persons and public institutions in pending decisions and developments with regard to the Swiss health system. Furthermore, the knowledge gathered in NRP 74 should contribute to an evidence-based public debate about health care in Switzerland. Another aim is to have a long-lasting positive effect on health services research in Switzerland.

The addressees of NRP 74 therefore comprise:

- Members of parliament concerned with the topics covered;
- Authorities at the Confederation, cantons and municipalities concerned with the topics covered;
- Health care institutions and their organisations;
- Affected professionals, or their associations and societies;
- Affected institutions of pre-, post-graduate, and continuing education;
- Researchers in Switzerland in the relevant disciplines;
- Leading research programmes and institutions abroad;

4. Main research areas

Three research areas are in the focus of NFP 74: “Countering under- and overuse to improve allocation of resources", "Coordination and collaboration among health care professionals" and "Caring for patients with multiple chronic conditions". These sub-topics, or modules, enable the NRP to study the health care situation in Switzerland from different scientific and problem-oriented perspectives. Because the research areas are not mutually exclusive, it is possible to submit projects that are specific to one of the three modules or projects that span across two or three modules. Specific topics outlined under the following modules serve as examples and are meant to stimulate the development of innovative research projects.

Module 1: Countering under- and overuse to improve allocation of resources

Several campaigns such as Choosing Wisely or Smarter Medicine have become popular recently. They aim to help physicians and patients to engage in conversations about the use of diagnostic tests and medical interventions. The goal of these initiatives is to increase the appropriate use of diagnostic tests and medical interventions according to the medical needs and preferences of healthy people and patients, informed by available research evidence on the benefit and harm of interventions, in order to reduce over- and underuse of health care services. We define underuse of health care services as the omission of diagnostic tests and medical interventions that result in more benefits than harms and we define overuse as the unnecessary use of diagnostic tests and medical interventions that are likely to provide more harms than benefits.

Submissions are welcome for this module that aim to:

- develop and test new concepts and methods to define and assess under- and overuse of diagnostic, preventive and therapeutic health care services (e.g. according to medical needs, values and preferences, research evidence, or other criteria)
- study under- and overuse of diagnostic, preventive and therapeutic health care services and associated costs within and across regions/population groups (e.g. migrants, type of insurance) in Switzerland as well as reasons (e.g. financial resources, infrastructure, disincentives) for explaining under- and overuse of health care services. Projects that lay the foundation for long-term monitoring of under- and overuse of health care services are highly welcome ("health care surveillance").
- develop and evaluate tools (e.g. decision aids, preference elicitation, clinical/computerized decision support) that support decision making for patients and their health professionals to choose and/or prioritize diagnostic, preventive and therapeutic health care services in order to maximize benefits and minimize harms while efficiently using the financial resources.

Submissions with a focus on diagnostic, preventive and therapeutic health care services for patients with (multiple) chronic conditions (from children to elderly people and from mental to physical chronic conditions) are welcome. There is no restriction in terms of diagnostic tests, preventive and therapeutic interventions or strategies for chronic disease management or for coordination of care within and across settings and health care providers. Studies that focus on complex interventions (combination of treatments delivered in health care networks) are welcome. If complex interventions are planned, researchers may consult the guidance document of the

Medical Research Council on the development and evaluation of complex interventions (www.mrc.ac.uk/complexinterventionsguidance).

There are no restrictions in terms of research methods (quantitative and qualitative or combinations thereof). The choice of methods should follow the research question and how much and what type of evidence is already available on the particular topic. For any study design and method, it is highly recommended to use available guidelines for designing and reporting studies (e.g. accessible on http://www.equator-network.org/) and, to provide reasoning for the choice and mix of methods. Projects for the development or adaptations of methods to define and determine under- and over use of health care services are welcome, but should include an application to the Swiss health care system. The studies should be designed to ensure generalisability of the results to the largest extent possible.

For guidance that applies to all three modules, please see 5.0 Research Guidelines.

Module 2: Coordination and collaboration among health care professionals

Coordination and continuity of care in medical and long-term settings are becoming more and more important as a result of an aging society and the greater prevalence of chronic conditions. Novel care models are being developed and evaluated that take into account the complexity of diagnostic, preventive and therapeutic health care services for patients with (multiple) chronic conditions by means of, e.g., multidisciplinary teams, case managers, process-oriented care or other. While some of these models may be attractive, it is often unclear under what circumstances and in which systems they work and ultimately lead to better health outcomes and how they impact healthcare systems. There are also important economic (e.g. reimbursement schemes) and legal aspects (e.g. mandate of cantons for community based services for elderly people, e.g. article 112c of Swiss constitution, or mandate to ensure basic medical out-patient-services, e.g. 117a of Swiss constitution) that affect how care is coordinated and how health care professionals collaborate.

Submissions are welcome that aim at:

- investigating how the different players, that provide diagnostic, preventive and therapeutic health care and community based services for patients with (multiple) chronic conditions, collaborate within and across medical and long-term settings and over the continuum of care in Switzerland and how this varies according to regions, rural or urban environments, or in different subpopulations.
- investigating how digital tools supporting treatment processes and exchange of information between various care providers (electronic case history, electronic patient folders, shared documents) can improve collaboration and treatment continuity.
- studying how patients with (multiple) chronic conditions move through the health and long-term care systems (i.e. longitudinally), how this varies by region or subpopulation and what costs are associated.
- evaluating health care networks and models for medical and long-term care in the Swiss health care setting, that have proven to work outside Switzerland, and exploring opportunities and barriers (e.g. organizational or economic) associated with implementation.

- developing and pilot-testing novel reimbursement approaches for interdisciplinary and/integrated care models that are currently not supported by the basic insurance in Switzerland (e.g. chronic disease management by nurses).

Submissions with a focus on coordination and continuity of care in medical and long-term settings for patients with (multiple) chronic conditions (from children to elderly people and from mental to physical chronic conditions) are welcome. There is no restriction in terms of diagnostic tests, preventive and therapeutic interventions or strategies for chronic disease management or for coordination of care within and across settings and health care providers. While this module focuses on coordination and collaboration of health care professionals and not primarily on patient outcomes, projects can span objectives from this module and Module 3.

Researchers are encouraged to work in teams of health care professionals, sociologists, psychologists, economists and integrate other disciplines to study the feasibility, acceptance (by patients and health care professionals) and comparative effectiveness of collaborative efforts to care for patients with (multiple) chronic conditions. Stakeholder involvement, e.g. of practicing health care professionals, patients, politicians, health authorities and payers (insurance companies), are explicitly encouraged for this module. Researchers should make use of existing data wherever possible and plan efficiently for studies with additional data collection to complement existing data. There are no restrictions in terms of research methods (quantitative and qualitative or combinations thereof). The choice of methods should follow the research question and the degree and type of evidence that is already available on the particular topic. For any study design and method, it is highly recommended to use available guidelines for designing and reporting studies (e.g. accessible on http://www.equator-network.org/) and, to provide reasoning for the choice and mix of methods.

For guidance that applies to all three modules, please see 5.0 Research Guidelines.

Module 3: Caring for patients with multiple chronic conditions

In Switzerland current care for patients with chronic conditions is largely physician-centered as physicians provide most diagnostic, preventive and therapeutic health care services for patients with (multiple) chronic conditions. This is unlikely to be sustainable given the demographic change, the increase in patients with chronic conditions and the possible shortage of primary care physicians in Switzerland. A number of approaches have become available or are being developed to address these challenges. The primary care medical home, also referred to as the “patient centered medical home”, advanced primary care, supportive (community) services related to chronic disease/disability and the healthcare home, are promising examples for transforming the organization and delivery of primary care. Numerous telehealth models with more or less active patient-self management have come to market and new models of community-based, long-term care also are emerging.

Submissions are welcome that aim at:

- evaluating health outcomes and associated costs of patients with (multiple) chronic conditions who receive care under novel types of health care organization and delivery with a focus on patients who often need complex interventions.

- addressing the challenges of measuring quality of care for patients with (multiple) chronic conditions for the purpose of developing quality measures and improving quality performance of health care organizations and delivery systems
- exploring how different patients (e.g. defined by their combination of conditions or preferences for health outcomes, types of interventions) may experience different care models
- developing and evaluating novel interventions for helping patients with or at risk for (multiple) chronic conditions and health care providers to prioritize diagnostic, preventive and therapeutic health care services and that take into account patient characteristics and preferences to optimize benefits and harms ("less is more").

In this module, projects are welcome that develop, pilot test and evaluate novel diagnostic, preventive and therapeutic health services for patients with (multiple) chronic conditions (from children to elderly people and from mental to physical chronic conditions). There are no restrictions in terms of the approach taken (being patient centered medical home, telehealth or other) but the approach should be applicable to large groups of patients rather than having a focus on highly specialized care that affects relatively few patients (e.g. disease management for patients after transplantation). If complex interventions are proposed, researchers may consult the guidance document of the Medical Research Council on the development and evaluation of complex interventions (www.mrc.ac.uk/complexinterventionsguidance). Since the chronic care model (as proposed by Wagner and colleagues) has seen extensive evaluation in Switzerland and other countries studies focusing exclusively on implementation and evaluation the chronic care model will not be prioritized.

There are no restrictions in terms of research methods (quantitative and qualitative or combinations thereof). The choice of methods should follow the research question and how much and what type of evidence is already available on the particular topic. For any study design and method, it is highly recommended to use available guidelines for designing and reporting studies (e.g. accessible on http://www.equator-network.org/) and, to provide reasoning for the choice and mix of methods. Researchers are encouraged to work in teams of health care professionals (physicians, nurses, physiotherapists and other), psychologists, and other professionals to study the feasibility, acceptance (by patients and health care professionals) and comparative effectiveness of existing and novel health care services for patients with (multiple) chronic conditions. Stakeholder involvement, e.g. of practicing health care professionals, patients and payers (insurance companies), are explicitly encouraged for this module. Researchers should make use of existing data wherever possible and plan efficiently for studies with additional data collection to complement existing data.

For guidance that applies to all three modules, please see 5.0 Research Guidelines.

5. Spirit of NRP Smarter Health Care

Sustainability of Health Services Research in Switzerland

The perspective of the NRP 74 Smarter Health Care goes beyond the duration of the program. Improvement of health care in Switzerland depends on the availability, accessibility, linkage and comparability of health data for ethical uses. The programme should lead to an improvement in the quality and information content of health data in Switzerland necessary to support decision makers (from patients to policy makers).

Researchers should explain in their proposal how their study contributes to better availability, accessibility, linkage and comparability of health data in Switzerland. They should also provide a data sharing plan where they describe how the data and codes (analysis) they use or generate will be made available publicly or at least accessible under certain conditions so that the study or the analyses can be repeated in other settings or in the future. When sharing data and codes is not possible, the researchers should explain why (e.g. because of confidentially agreements, ethics requirements or data protection laws).

Promotion of junior researchers and setting of research structures

NRP 74 aims at strengthening scientific competencies by supporting junior academics and scientists. Projects that emphasize this aspect by, e.g., enabling dissertation projects or strengthening basic research structures and platforms, are encouraged. Several structured PhD programs exist at Swiss universities (e.g. in epidemiology, biostatistics, psychology, economics, ethics etc). Enrolment of PhD students, who work on NRP 74 projects, in these programs is highly welcome as well as collaboration across programs and universities (e.g. through the Swiss School of Public Health, http://www.ssphplus.ch).

Inter- and transdisciplinarity

Whenever necessary to answer research questions, projects should integrate the views and approaches across disciplines, i.e. they should work along inter- and transdisciplinary lines. Researchers may come from various disciplines of medicine, epidemiology, nursing and allied health professions, psychology, statistics, sociology, law, ethics, bioinformatics, economics, leadership or other relevant fields. The research teams may also want to elicit input from research stakeholders at the stage of prioritizing research, formulating the research question, designing and planning the study, conduct and analysis of the study as well as interpretation and dissemination of the results. Stakeholders may be representatives of the population to be studied, as well as providers (health care professionals, hospital or practice managers), payers (public or private), industry, policy makers (e.g. politicians, guideline developers) or health authorities. If stakeholder engagement is planned, researchers may consult the “PCORI Methodology Report” (http://www.pcori.org/assets/2013/11/PCORI-Methodology-Report.pdf).”

National and international cooperation

National collaboration with other projects within and outside NRP 74 are welcome. Collaboration with research groups in other countries is encouraged, provided that the planned cooperation a) brings significant added value which could not be achieved without cross-border cooperation or b) substantially enriches Swiss research in respect to content or methodology.

6. Submission procedure and project selection

General conditions

One call for proposals is foreseen. In the event of significant thematic gaps, a second call for proposals may be launched.

Research projects conducted under NRP 74 are limited to 48 months. The average budget of a project is expected to range between 300‘000 to 400‘000 CHF. This range is meant as a reference point. Smaller and larger budgets are possible.

To allow for optimal coordination approved projects must start no later than three months after the date of the approval.

A two-stage submission procedure is applied: pre-proposals are submitted first followed by invited full proposals. The Steering Committee expects pre- and full proposals to be submitted in English, unless it can be shown that either German or French is intrinsically better suited to the research topic. Before handing in the proposal in German or French please contact the programme manager of the NRP 74 for approval. For evaluation purposes, the pre- and the full proposal must be written in the same language.

Cross-border research projects are supported if the competence of researchers from abroad is essential for realising the project. As a rule, the share of financing requested for researchers abroad may not exceed 30% of the overall budget, and the person responsible for the project abroad may not be assigned the role of corresponding with the SNSF. For applicants from abroad, the norms and salary rates of the relevant country will be applied mutatis mutandis, with the SNSF maximum rates generally serving as the upper limit.
Before submitting a proposal for a cross-border research project, please contact the programme manager of NRP 74.

All forms, rules of procedure and instructions for the submission of proposals can be found on www.mysnf.ch under ‘information/documents’ after selecting the corresponding NRP and creating an application.

Online submission on mySNF

Pre- and full proposals have to be submitted on the mySNF portal (www.mySNF.ch). For this, user-registration is needed. User accounts obtained in the past are valid and provide access to all the funding instruments of the SNSF. It is recommended to request new user accounts as early as possible, however they need to be requested no later than five working days before the submission deadline from the homepage of the mySNF portal.

Pre-proposals

The deadline for submission of pre-proposals is 18.01.2016.

In addition to the data that is to be entered directly in mySNF the following documents are to be uploaded:

- Project description (as PDF file)
  Applicants must use the document template provided on the mySNF portal. The project description must not exceed six pages.
- Short CVs and publication lists of all applicants (as PDF files)
  The CVs must not exceed a maximum of two pages each. Each publication list contain the five most relevant publications only. Links to full publication lists may be included.

Project descriptions and CVs exceeding the indicated length will not be considered.

Full proposals

The deadline for submission of full proposals is 18.07.2016.

In addition to the data that is to be entered directly in mySNF the following documents are to be uploaded:

- Research plan (as PDF file)
  Applicants must use the document template provided on the mySNF portal. The project description must not exceed 20 pages.
- Short CVs and publication lists of all applicants (as PDF files)
  The CVs must not exceed two pages each. Links to publication lists may be included.
- Supplementary documents (support letters, confirmation of co-operation or co-financing, forms regarding international co-operations, etc.) can be uploaded on mySNF.

Project selection

The Steering Committee evaluates the submitted pre-proposals and makes a final decision based on the review criteria outlined below. In making its decisions, it may refer to international assessments. Authors not invited to submit a full proposal will be informed accordingly by means of a ruling.

In the second stage of the submission procedure the Steering Committee will invite the authors of the selected pre-proposals to submit a full proposal. In the invitation, the Steering Committee might give recommendations or set conditions for the full proposal. Based on external reviews as well as on an evaluation by the Steering Committee, it will propose full proposals to be approved or rejected by the National Research Council (Programmes Division and Presiding Board).

Selection criteria

The Secretariat of the Division Programmes checks whether the personal and formal requirements are met, before forwarding the proposal for scientific review (cf. Funding Regulations of the SNSF). Pre- and full proposals that do not meet the personal and formal requirements will not be processed further.

Pre- and full proposals will be reviewed on the basis of the following criteria, with Compliance and Scientific quality being the most important criteria:

- Compliance with the goals of the NRP: Proposals must reflect the programme's objectives as outlined in the call and comply with its overall framework.
- Scientific quality: Proposals must fulfill international state-of-the-art criteria with respect to scientific quality as well as methodology. Proposals must contain an innovative component and be relevant as compared to completed or running research projects in the same field.
- Inter- and transdisciplinarity: Projects with research questions addressed by different disciplines or that demand approaches that transcend the boundaries between science and practice must secure adequate cooperation between the actors, project management and the methodology.
- Application and implementation: The potential for practical application and implementation of results is a key element of NRPs. Projects of high practical relevance are therefore given priority.
- Personnel and infrastructure: Adequate personnel resources and an adequate infrastructure must be secured for the project.
- Responses to comments given: The Steering Committee may choose to comment on the pre-proposal and make suggestions for revisions to the research team for the preparation of the full proposal. (This criteria is applicable on full proposals only.)

Schedule

At present, the following schedule is envisaged for NRP 74:

Call for pre-proposals	1st October 2015
Submission of pre-proposals	18th January 2016
Invitation to submit full proposals	April 2016
Submission of full proposals	18th July 2016
Final decision on full proposals	November 2016
Start of research (at the latest)	1st January 2017 (1st March 2017)

Budget

Total funds of CHF 20 million are available for this NRP. The provisional allocation of this funding between the different research modules and administrative activities is as follows:

Module 1	Approx. 5 Mio CHF
Module 2	Approx. 5 Mio CHF
Module 3	Approx. 7 Mio CHF
Knowledge Transfer, synthesis and scientific support	Approx. 3 Mio CHF

7. Contact

For questions regarding the submission and evaluation procedure or NRP 74 in general, please contact the programme manager: Kathrin Peter, nfp74@snf.ch or 031 308 22 22.
For questions concerning financial matters please contact the Head of Finances: Roman Sollberger, roman.sollberger@snf.ch or 031 308 21 05.

Technical help with mySNF and electronic submissions

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8. Actors

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Prof. Dr. Regina Aebi, Research Council, Swiss National Science Foundation, Faculty of Law, University of Lucerne (Deputy)

Programme Manager

Dr. Kathrin Peter, Swiss National Science Foundation

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Representative of the Swiss Federal Administration

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Representative of the Swiss Conference of the Cantonal Ministers of Public Health (CMPH)

Dr. Peter Indra, Head Health Care of the Canton Basel-Stadt

For the State Secretariat for Education, Research and Innovation (SERI), Berne

Dr. Claudine Dolt, SERI, Berne