Smarter Health Care
National Research Programme

Synthesis Working Paper:
Building a strong research community (EHCL+)

June 2022

About this Synthesis Working Paper

The NRP 74: Research for better health care

The National Research Programme "Smarter Health Care" (NRP 74) aims to promote innovative health services in Switzerland and to tackle the practical challenges the health care system is facing today. To this end, researchers are investigating a wide range of aspects, from the better use of health data and the care of older people at home to case management in emergency wards.

The NRP 74 includes 34 research projects at universities and higher education institutions throughout Switzerland. It is implemented by the Swiss National Science Foundation (SNSF) on behalf of the Federal Council, has a budget of CHF 20 million and runs from 2016 to 2022.

Six critical areas with a Synthesis Working Paper for each

To address some of the overarching issues facing the health care system today, the NRP 74 has integrated significant research findings from single projects into six topic-specific syntheses. In these six critical areas, researchers analysed their results from different professional perspectives, putting them in a larger context and devising recommendations to meet the current challenges in today's health care system.

These areas are:

- Quality of care
- Patient participation
- Coordination and care models
- Cost and reimbursement
- Health care data
- Building a strong research community (EHCL+)

All six topic-specific synthesis can be consulted on www.NRP 74.ch.

The Synthesis Team

This Synthesis Working Paper on the theme of "Building a strong research community (EHCL+)" has been compiled by a team led by a member of the NRP 74 steering committee and the Head of the EHCL programme, and two doctoral students engaged in NRP 74 projects and part of NRP 74's Emerging Health Care Leaders (EHCL) programme.

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Foreword – Building up a strong and integrated research community

Shaping a smarter health care for the future requires a new generation of health care leaders. Their competences have to go beyond research skills and must include capacities to enter a fruitful dialogue with stakeholders in practice, politics and with society. With the creation of a pioneering support program for early career scientists (the so called “Emerging Health Care Leaders Programme”) the NFP 74 contributed to these goals.

Within a few years it was possible to create a strong and tightly connected research community in the domain of health service research and to equip the talented young members of the community with relevant knowledge transfer and communication skills and with management and policy making competences. The establishment of this active community was achieved through a “trust building process”. The skill training part of the programme was oriented on the needs of the participants (bottom-up approach) and followed a participatory philosophy, thus helping self-identification of the community members.

The specific nature of the created cohort (restricted to the domain of Health Service Research) helped to make rapid progresses in the community building process. Nevertheless, it might be possible to transfer much of the processes in the “Emerging Health care leaders programme” to other areas in Public Health and Health Care Research.

The Emerging Health Care Leaders Programme has created a vibrant and dynamic community in Health Service Research. In order to assure its sustainability and its usefulness for the future of society, it will be essential to bolster the outreach of the existing community and to establish a common working platform with stakeholders from practice, politics and society. Such an integrated research and practice community will form the backbone of future Health Services Research in Switzerland.

Our sincere thanks go to all scholars who have participated in the EHCL programme. They invested considerable amount of time, energy and genuine enthusiasm into the building of a close community of future Health Care Leaders in Switzerland. It is their great committment and their proactive participation that made the establishment of the EHCL project a success and a role model for future initiatives for similar support programmes for young scientists in this country and abroad.

Dr. med. Rolf Heusser-Gretler (Operative Lead EHCL Programme)

Prof. Dr. Milo Puhan (Strategic Lead EHCL Programme and President Steering Committee NRP 74)

Editorial

The National Research Programme 74 (in the following *NRP 74*) has facilitated the further development of health services research (HSR) in Switzerland beyond the funded research projects by creating a far-reaching and to-date unique support program (Emerging Health Care Leaders (EHCL) programme) for young and upcoming investigators and future healthcare leaders.

The EHCL programme has been established to connect the dots among the research projects of the NRP 74 and facilitate the professional and targeted dialogue with participating stakeholders, thus building a strong and future-oriented community of researchers who are enabled (through competency-building) and connected (through collaborations) to drive health services research and policy over the course of their careers. A significant portion of the NRP 74's budget was allocated to this community-building initiative which was aimed specifically at the doctoral students and postdoctoral fellows involved in the 34 NRP 74 research projects.

Various formats of interaction (skill training workshops, retreats, spark sessions etc.) and professional development have been successfully employed to accomplish the intended objectives. The first part of this Synthesis Working Paper provides an in-depth evaluation and assessment of this pioneering needs-based training programme. In line with the philosophy of the EHCL program two leading members of the EHCL community - Dr. Agnė Ulytė and Dr. Andrea Martani - took on the responsibility for this part supported by Dr. Rolf Heussler-Gretler, the coordinator of the EHCL programme. Without Rolf's inspiration, engagement, and relentless personal support the EHCL programme would not be what it stands for today. I believe we are all very much indebted to him. I would also like to mention the very valuable contributions of Dr. Emily Reeves and Christine D'Anna-Huber. The former was essential to kick off the synthesis work and involved until May 2021, the latter was crucial during the final phase of the synthesis project.

Nevertheless, since this first part was not intended to deliver an answer to the "so-what" question, it was deemed imperative to complement it with a thorough analysis of essential community building mechanisms which are necessary to maintain a professional community in the long term. Therefore, the second part of this synthesis working paper refers to the deep-dive focus study conducted by the Center for Health Care Management under my personal leadership. The study succeeded in developing a strategic and operational approach for building and maintaining an integrated research community driven by emerging healthcare leaders (EHCL+) for future health services research in Switzerland. It showed how the experience gained from this unique NRP 74 platform of exchange and collaboration could be leveraged to define essential factors for the establishment and maintenance of an integrated research and practice community bringing together researchers, politicians, practice stakeholders and patients on a continuing basis. I'm grateful to the steering committee and the SNSF for the support of the focus study which provided essential insights for the future. Finally, I would like to thank Prof. Dr. Milo Puhan as the strategic head of the EHCL programme for his enduring support and enthusiasm. The next generation of future healthcare leaders could not ask for a better sponsor and partner in developing this community further.

Taken together, the two parts allow for conclusions on how to maintain and promote an integrated research and practice community as the "backbone" for future health services research in Switzerland. These "best management practices" will facilitate a continuous knowledge transfer and policy collaboration beyond ground-breaking research in the future. It was a pleasure and an honour to lead this synthesis working paper. I wish the next generation of healthcare leaders lots of luck, rewarding personal and professional exchanges, and first and foremost enjoyment in everything they do. Let the community thrive!

Paris, in March 2022, Prof. Dr. Katharina Janus, Center for Health Care Management

Executive Summary

Shaping a smarter health care for the future requires a new generation of health care leaders

The National Research Programmes (NRPs) funded by the Swiss National Science Foundation embrace research projects that contribute to solving today's key problems. With the ambitious goal of *"creating a strong community of health services researchers conducting world-leading research in this area*", the NRP 74 went one step beyond research by launching the Emerging Health Care Leader (EHCL) programme. This pioneering needs-based training programme for early career researchers (PhD researchers, postdocs and junior medical doctors) involved in 34 NRP 74 projects was designed to empower participants to become tomorrow's health care leaders and to enable them to guide health services research and policy over the course of their careers.

To achieve this, a significant portion of the NRP 74 funding was reserved to equip the young researchers with the necessary skills and competencies. Specifically, the EHCL programme aimed at:

- Creating a close network of scientists as a first step to a forward-looking community of health services researchers,
- Training and empowering of the early career scientists within the community,
- Connecting junior researchers with leaders of institutional actors in the health sector, both nationally and internationally,
- Fostering cooperation, collaboration, and mutual learning among NRP 74 projects, and
- Supporting the health services research field in Switzerland more generally by facilitating collaborations across different institutions and expertise.

The first part of this synthesis working paper (Chapter 1) provides an overview of the programme's objectives and values as well as the didactic methods and community-building mechanisms on which it is based. It shows how it became possible to build a strong and stable community of young health services researchers within only a few years through a trust-building approach. This was facilitated by various meetings in which new knowledge and skills (individually and team-based) were acquired and exchanged, and close ties developed.

The analysis of a wide range of data sources collected over the course of the programme allowed the synthesis group to assess the success of the EHCL initiative and to formulate the following recommendations for the perennation of a community of skilled, practice- and policy-oriented Swiss health care leaders:

- **Build on the existing foundation of the EHCL Community:** The EHCL programme has created a vibrant community in health services research. This community should be sustained, its members should have a stake in its future, and its community-building experience should be used to integrate new members.
- **Maintain the focus on skill- and competence-building:** Maintain a continuous offer of skill courses and opportunities to acquire new competences relevant for the career of community members as an added value for joining the community.
- **Establish the community within the Swiss health landscape:** Institutionalize the existing community and connect it to other established networks in the Swiss health care sector (e.g., Swiss School of Public Health).

- **Bolster the outreach of the community:** Enlarge the collaboration with practice and politics, so that the community becomes better established and its outputs (projects, science communications) more useful.

The importance of stakeholder engagement

A new generation of policy-literate health care leaders constitutes one prerequisite on which to build smarter health care solutions. But devising effective ways of empowering a cohort of young health services researchers to tackle the challenges faced by the Swiss health system is only the first half of the task. Accordingly, the second part of this synthesis report (Chapter 2) developed a blueprint strategy for establishing and maintaining an integrated research and practice community as the backbone for future health services research in Switzerland, bringing together researchers, politicians, practice stakeholders and patients on a continuing basis. It is based on a deep dive focus study conducted by the Center for Healthcare Management under the leadership of Prof. Dr. Katharina Janus. In particular, the focus study aimed at the following:

- Determining the essential factors for setting up and managing an integrated research community in health services research (HSR) that will serve as the backbone for the establishment of a new domain,
- Evaluating the interactive process and collaboration of NRP 74 projects with stakeholders and champions in practice,
- Drawing conclusions for genuine “best” management practices and policy dialogues with the purpose of establishing an innovative and sustainable knowledge transfer on a continuing basis that supports future health services research in Switzerland.

For this purpose, it was essential to extend the range of interviewees of this focus study beyond the pure EHCL community to include PIs and – most importantly – external stakeholders who will play an important role in funding and supporting a community beyond the NRP 74. Indeed, the study unequivocally revealed that the involvement of stakeholders from practice is essential to secure input (cases, empirical studies etc.), funding, and other key opportunities for young researchers, whereas the backing by established scholars and stakeholders can secure commitment and foster exchange.

Based on qualitative interviews and background research a range of essential **community mechanisms** could be extracted, thus supporting the design of a strategic and operational approach to future community building and maintenance:

- The basis for all communities is a certain level of **trust and confidentiality**. It is the foundation for any **communication** and creates the **context for a continuous dialogue**. This goes together with building bridges and merging data across silos to further incentivize **dialogue and collaborative interaction** on the next level.
- **Long-term commitment to the community is a reciprocal act** – an individual’s contribution is considered in conjunction with his or her benefit from the community and its reciprocal action. This community mechanism represents the top of the pyramid, underlining its importance in establishing and maintaining an integrated research and practice community. The order of the community mechanisms is hierarchical on purpose – **the top levels rely on the fulfilment of the lower levels**.

Two parts of a whole

Together, the practical community building approach with its experience-based insights of Chapter 1 and the overarching strategic and operational implications of Chapter 2 can serve policymakers and managers alike when designing an integrated research and practice community. The challenge will be to apply, implement, and nourish the described community mechanisms within the already established EHCL community to lift it to the next level or integrate it into a new community in which stakeholders play an equal role. This will be essential to building up a sustainable and strong research and practice community in Swiss health services research.

1. Description and Evaluation of the Emerging Health Care Leaders (EHCL) programme

1.1 Background

The National Research Programme 74 (NRP 74) was launched by the Swiss Federal Council in 2015[1]. Whilst it naturally differed from other National Research Programmes in terms of its content, there is a further characteristic to make it stand out: its clear objective of *"creating a strong community of health services researchers conducting world-leading research in this area"* [2]. Key components of this objective were: 1) having an view to future, i.e. a perspective extending beyond the duration of the programme and promoting the long-term sustainability of health care services research in Switzerland; and 2) the creation of a cohort of young scientists with the necessary competencies to guide health services research and policy over the course of their careers [2].

To achieve this, a significant portion of NRP 74 funding has been reserved for the development of a close-knit network of young researchers and the fostering of skills and competencies necessary for them to build successful careers in health services research. Thus the *Emerging Health Care Leaders (EHCL) programme* was established as a coordinated community-building initiative, targeting the doctoral students and postdoctoral fellows involved in the 34 projects supported by the NRP 74 [5]. The initiative was placed under the supervision of the NRP 74 Steering Committee President to ensure and promote its integration into the NRP 74 programme as a whole.

Internationally unique...

With its aim of promoting a community of researchers, the NRP 74 stands out internationally as well. There are few initiatives worldwide that combine the aspects of community building (across institutions) and promoting young health services researchers across an entire country. In her paper, Sonnino [6] listed a number of existing health care leadership development initiatives (mainly in the United States), but noted that most of them are limited to a single institution or the local level, underlining the "need for more national-level interdisciplinary and comprehensive leadership training programmes." As one of the few examples of initiatives with these characteristics, Sonnino quotes the Executive Leadership in Academic Medicine (ELAM) initiatives in the United States, whose objective was to develop women leaders in academic health care [7] and whose impact has been particularly positive [8]. Another example is the Emerging Health Leaders in Canada, a grassroots initiative designed to ensure that the next generation of Canadian health care experts can meet the challenges of the future [9,10].

...and meeting a growing need

The EHCL programme is addressing the increasing need – made all the more evident by the COVID-19 pandemic – to improve coordination within health care research on one hand and research and health care policy on the other. The creation of a skilled health care workforce has also been one of the goals of the Swiss School of Public Health in recent years [11].

In this report, we will provide some preliminary assessments of the EHCL programme, which represents an exemplary initiative for creating a community of health care researchers willing to apply their skills beyond the academic context. To this end, we will first explain the objectives of the programme and highlight the principles and values on which the EHCL initiative is based, so that its evolution can be contextualised. We will then provide an overview of the didactic methods used for the implementation of the programme, focusing in particular on community building as a central element embodying the spirit of the initiative. This will be followed by a comprehensive description of the activities and other concrete implementation aspects, as well as a preliminary evaluation of the EHCL programme, focussing on its

strengths, limitations, and the extent to which it has succeeded in fostering the skills of a close-knit community of young health services researchers. We will conclude with the lessons learned and recommendations for the successful maintaining of an integrated research community.

1.2 Aims and Objectives of the EHCL programme

The EHCL programme was designed to lay the foundation for the development of a robust and cohesive community of health services researchers for the future. Its main objectives included:

- *Creating a close network of scientists as a first step to a forward-looking community of health services researchers.* To this end, the programme aimed at promoting trust, a sense of community, as well as an appreciation of collaboration and exchange among like-minded young researchers [15].
- *Training and empowering of the early career scientists within the community* by providing them the necessary skills to serve in leadership positions within the health care system. Skill trainings were designed to address trainees' self and interpersonal skills, promote professional competences as well as soft skills and the capacity to transfer their knowledge into practice and policy.
- *Connecting junior researchers with leaders of institutional actors in the health sector, both nationally and internationally.* Enabling a proactive network with established experts in the health field is at the heart of the establishment of an impactful research community in Switzerland [16].
- *Fostering cooperation, collaboration, and mutual learning between NRP 74 projects, both among early career researchers and with project leaders and other senior scientists.* This is in line with the NRP 74 effort to create synergies among the projects it supports, as demonstrated by the organization of a cross-project evidence synthesis, of which this report is a part [17]. It is also designed to advance the careers of young researchers by providing a wealth of networking opportunities with experts and peers from Switzerland and abroad.
- *Supporting the health services research field in Switzerland more generally, by facilitating collaborations across different institutions and expertise.* Health care services research is relatively young in Switzerland [18], but has sparked a lot of interest among a large set of stakeholders.

As evident from these objectives, the NRP 74 through the EHCL programme was striving to build more than a 'traditional' association of researchers united by the same background or the same interests. Rather, it sought to create a network whose members would see themselves as part of a close (but not closed) community well beyond the end of the NRP 74. For this reason, the programme strived to install both professional and personal connections between its members, so that the synergies developed during the early stages of their careers would continue into their future involvement in Swiss health care research and policy. To achieve this ambitious goal, it has been critical for the EHCL community to draw on a set of key values aimed at creating an open and innovative culture.

1.3 Principles and Values

The EHCL programme incorporated five main guiding principles [20]:

- *Focus on early career scientists*: the programme aimed to create a new cohort of researchers and a community able to drive health services research in Switzerland in the future.
- *Demand-driven*: The EHCL programme was meant to provide a form of training with a decisive bottom-up approach. While there are many organized career development events in Switzerland (and abroad) that are run by institutions based on the *perceived* needs of early career researchers, the EHCL programme was primarily driven by the needs expressed by the researchers themselves.

- *Subsidiarity:* the EHCL programme was designed to complement the academic and professional training, which many of its members were bound to receive elsewhere in their academic education. It aimed at filling the gaps left by existing training programmes and networking opportunities in Switzerland.
- *Inclusive approach*: Although the EHCL programme targeted early career scientists working in NRP 74 projects, it aimed to be as inclusive as possible. For this reason, participation in events and activities organised by EHCL researches was open also to senior members of their research team, and the community communicated frequently with other existing network in Switzerland (e.g., the Swiss School of Public Health (SSPH+) [21]).
- *Spirit of innovation:* The final overarching guiding principle of the EHCL programme was a focus on building on and sustaining an innovative spirit. This implied a lot of flexibility to take advantage of opportunities to improve the programme during its implementation, rather that sticking to predefined structures. An example of this innovative spirit can be found in the list of activities in section 1.6 and in the outcomes enabled by the EHCL programme listed in section 1.7.

The programme also featured a strong set of core values. Above all, it focused on creating *a community based on a broad understanding of trust.* This included the value of 'trust' understood more as a sense of "confidence in another's goodwill" [22], but also the closely related – and equally important – value of psychological safety, i.e. the ability "to show and employ one's self without fear of negative consequences of self-image, status or career" [23]. In order to establish trust as a key value of the EHCL community, the programme always emphasized flexibility, adopting a horizontal hierarchy and combining professional and training sessions with social events. The importance of combining 'formal' and 'informal' interactions in order to develop trust has been variously pointed out [24]. Trust as a value within a community is also seen as a facilitator of efficient and productive collaborations between its members. In a study on inter-organisational networks, Ring and Van de Ven noted that *"if prior interactions between individuals formally belonging to different organisations led to the creation of high levels of trust between the parties, they may be able to negotiate, make commitments, and begin to rapidly execute a relationship" [22]*. The situation of the EHCL community is similar: its members come from various Swiss research institutions and they would be much less likely to interact on a (inter)personal level without the EHCL programme.

Another important value was *the open interaction and ongoing dialogue with and among members***.** At each EHCL activity, there was an opportunity to provide direct feedback, so that members could help shape future activities by interacting with each other and with the EHCL programme coordinators. Building on the experience of other research networks (e.g., [26]), informal face-to-face meetings with single members as well as meetings with the whole community were organized by the coordinators to create open dialogue. Of course, some of this had to be discontinued after the onset of the COVID-19 epidemic, but by that time an environment based on open interaction and dialogue had already been formed. As Hagen and colleagues argued when reviewing a clinical research network, face-to-face meetings are important at the beginning of the establishment of a network *"because this is the time when a sense of trust is established and teste*d", but they also speculated that *"pre-existing interpersonal relationships [once developed] contribute to a smaller-than-expected need for face to-face meetings"* [27].

One last important value that inspired and guided the EHCL programme was that of *community building,* to which we devote a separate section (see section 1.5).

1.4 Didactic methods

In accordance with modern principles of higher (tertiary) education[28], all learning activities in the EHCL programme were focused on *specific learning outcomes and competencies*. Workshop and training or-

ganizers, speakers and facilitators defined learning outcomes in advance with the support of EHCL coordinators. They were encouraged to structure the events around those learning outcomes – and to ensure that they contributed to building the competences that the EHCL programme wanted to provide its early career scientist members with. At the beginning of the programme, the EHCL coordinator (Dr. Rolf Heusser) identified competency areas reflecting the profile of a health care leader. These include: 1) self-competencies; 2) professional competencies; 3) soft skills; 4) knowledge transfer competencies; 5) social competencies/community-building (see Figure 1).

Figure 1: EHCL Skill trainings: HC-Leader Portfolio

Source: SNSF Smarter Health Care

In addition, all courses and events followed the *principles of adult learning*. One of the main features of this approach is the focus on the interactive components in every event (group work, discussions, case studies, etc.). Another feature is the step-by-step approach to the training of specific skill sets. For example, the *leadership* skills series (see section 7) began with a broad introductory session on the topic, followed by activities that focused on specific subtopics (negotiations, building a successful work environment, conflict management, etc.). A similar approach of gradually building the training a specific skill set was applied to the development of *soft skills.* Training began with courses on “scientific writing” and “presentation skills”, which were then followed by workshops on media/social media and courses on video-conferencing and public speaking. Another series concerned *knowledge transfer*, imparting how to negotiate the transition “from evidence to politics” and detailing the principles of “health communication" as well as aspects of political lobbying. This series was concluded by a visit to the Federal Parliament in Bern and two workshops about cantonal politics.

Instructors with a broad range of expertise that went far beyond the field of academia or research were crucial to the didactic methods of the EHCL programme. All media courses were taught by TV professionals and the workshops on politics featured lectures by seasoned health politicians such as Felix Gutzwiller or Iwan Rickenbacher. This didactic approach was adopted to ensure that the young scientists not only acquired new skills and knowledge, but also had *exposure to the professional groups and fields of work they are bound to encounter in their pursuit of a leadership position in the health sector*.

The final feature characterizing the didactic approach aimed at *gradually empowering programme fellows to decide themselves which topics and activities to pursue and organize***.** While in the initial year of programme, the coordinators did most of the organisational work, in the following three years the EHCL scientists increasingly assumed responsibilities, taking the full lead in setting up and implementing events in the "Expert Visitor Grant Programme" or the "Let's talk behind the screens" format (see section 1.7). Fellows were also instrumental in programme conferences and other internal and external NFP 74 meetings, serving as moderators, leading workshops, and delivering a variety of presentations.

1.5 Community building

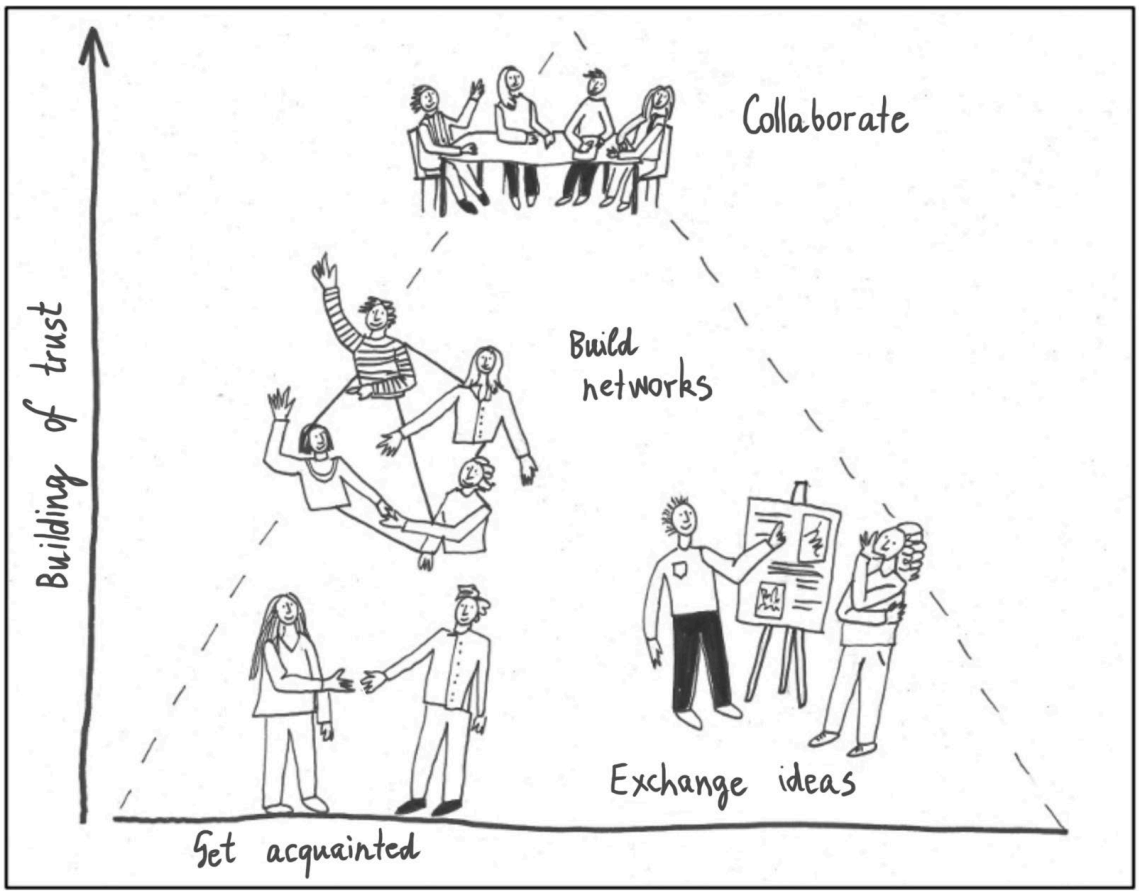
Community building is a core objective of the EHCL and the NRP 74, as well as a key value of the didactic methods listed above.

As an objective, community building is the dual ambition of creating a programme that leads to building a cohort of scientists who would be part of a tight collaborative network, and also be able to continue the network beyond the initial time frame of the EHCL programme. In other words: the EHCL programme aimed to plant the seeds of a community that would grow and blossom in the future. This explains the emphasis on networking aspects in all programme activities, conceived as a means to ensure that *"EHCL participants will form a strong and lasting network of emerging health care leaders"* [16].

As a core value, the idea of community building was conceptualized as a principle that "promotes social cohesion in the research community and at the same time strengthens the research capacities of the individual members" [15]. All activities of the EHCL programme therefore aimed at establishing a shared culture valorising leadership and individuality, but at the same time ascribing an important role to the community as a collective entity.

Strengthening community building as a value ideally takes place in three steps: first, by sharing information and learning from each other; second, by developing common strategies, goals, methods, and tools; and third, by undertaking joint (or collaborating on) projects [15]. Community building was thus based on a trust building approach. Regular meetings (both professional and social) created the space for the pursuit of common interests. Joint activities in these "areas of common interest" were then able to deepen the mutual understanding of the participants. In this sense, building trust is understood as a gradual and step-by-step process that develops within a community, as illustrated in Figure 2**.**

Figure 2: Illustration of the trust-building process



Source: EHCL programme.

1.6 Description of the programme and its activities

The following section describes in more detail the activities organized by and within the EHCL, focusing on both the rationale and the aim of each. While some of the activities were conceived from the beginning by the programme coordinators, others emerged over the years and were proposed by programme fellows themselves, combining a 'top-down' and a 'bottom-up' approach. We provide concrete examples for the implementation of each activity, as well as graphic material to show their specific set up. More details on the single events can be found in section 1.7 and the Appendix.

It is important to note that this section only describes the *formal* and *institutionalized* activities organized directly by the EHCL community. There are a number of *informal* or *less-institutionalized* activities that the programme has facilitated, such as the development of joint research proposals and joint writing of scientific articles or the peer support among ECHL scientists, etc. These activities are discussed in the section on programme evaluation (and in particular in section 1.7).

Spark Sessions

"Spark sessions" were among the core events of the programme. These are short one- or half-day events similar in format to workshops or small conferences, but aimed primarily at "spark[ing] new ideas, collaborations and skills" [16], rather than presenting previous work or traditional lectures. They could either be organized by the EHCL coordinators or in collaboration with EHCL scholars and would be aimed primarily at the latter.

Skills training workshops

Interactive workshops aimed at developing skills relevant to careers in health care institutions were another type of EHCL activity. These were more traditional learning events covering a broad range of topics including “presentation skills, project management, securing grants in Switzerland and abroad, and knowledge transfer” [16]. They were held online or in-person and typically lasted not more than half a day. They usually included one or more invited experts knowledgeable about the topic and able to coordinate the training.

Retreats

Throughout the EHCL programme, shorter events were also complemented by longer multiday retreats open to all scholars. Retreats are a more extended format and take place in various locations around the country, usually in a calm and peaceful place, where participants can interact intensively and develop trust and a sense of community among them. The retreats always have a specific theme, but also include career coaching, networking activities and social events. Their main goal is to "create opportunities for close collaboration among EHCL participants." [16] Moreover, their longer duration and the inclusion of both professional and social sessions are deemed essential to “build the necessary trust in each another, develop a good sense of community, and go on in the future to tackle health services research in a united way” [15].

EHCL behind the screens

The COVID-19 epidemic led to disruptions in some activities planned by the EHCL community (e.g., cancellation of in-person events, international guest speakers and trainers unable to travel to Switzerland etc.). To respond to the change in circumstances, the scholars proposed a new type of activity, named “EHCL behind the screens”. These are short online events (maximum two hours) organized by the EHCL fellows themselves on a specific topic of current relevance for the health care. Each event was organized by one or more scientists who invited national or international guest speakers/trainers. The events were advertised in the community with flyers designed by the EHCL fellows (see Figure 3).

Figure 3: Flyers advertising two “EHCL behind the screens” events

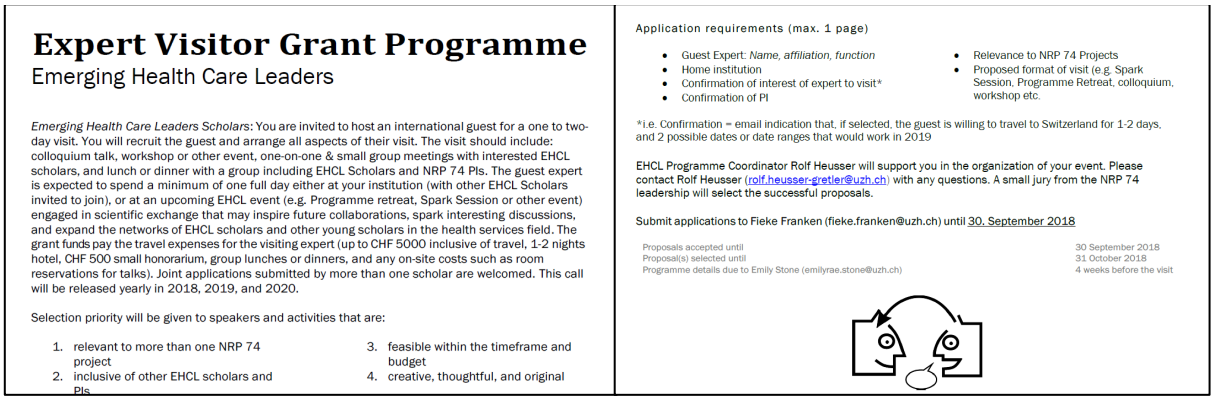
Source: EHCL programme

Expert Visitor Grant Programme

Another activity consisted in small funding call for programme members to invite an international expert to Switzerland to hold a talk or participate in an event that would be of interest for the community as a whole and also provide an opportunity for informal exchange. This activity operationalized many of the principles upon which the EHCL community is based, such as promoting “discussions in content clusters,

[and] meetings with Swiss and international experts in their [the scholars'] research areas" [15]. Community building amongst EHCL fellows was also strengthened by the fact that proposal to organize these activities were often submitted by more than one young researcher. Figure 4 below shows the details of the first call.

Figure 4: Example of a call for the "Expert Visitor Grant Programme



Expert Visitor Grant Programme

Emerging Health Care Leaders

Emerging Health Care Leaders Scholars: You are invited to host an international guest for a one to two-day visit. You will recruit the guest and arrange all aspects of their visit. The visit should include: colloquium talk, workshop or other event, one-on-one & small group meetings with interested EHCL scholars, and lunch or dinner with a group including EHCL Scholars and NRP 74 PIs. The guest expert is expected to spend a minimum of one full day either at your institution (with other EHCL Scholars invited to join), or at an upcoming EHCL event (e.g. Programme retreat, Spark Session or other event) engaged in scientific exchange that may inspire future collaborations, spark interesting discussions, and expand the networks of EHCL scholars and other young scholars in the health services field. The grant funds pay the travel expenses for the visiting expert (up to CHF 5000 inclusive of travel, 1-2 nights hotel, CHF 500 small honorarium, group lunches or dinners, and any on-site costs such as room reservations for talks). Joint applications submitted by more than one scholar are welcomed. This call will be released yearly in 2018, 2019, and 2020.

Selection priority will be given to speakers and activities that are:

1. relevant to more than one NRP 74 project
2. inclusive of other EHCL scholars and PIs
3. feasible within the timeframe and budget
4. creative, thoughtful, and original

Application requirements (max. 1 page)

- Guest Expert: *Name, affiliation, function*
- Home institution
- Confirmation of interest of expert to visit*
- Confirmation of PI
- Relevance to NRP 74 Projects
- Proposed format of visit (e.g. Spark Session, Programme Retreat, colloquium, workshop etc.

*i.e. Confirmation = email indication that, if selected, the guest is willing to travel to Switzerland for 1-2 days, and 2 possible dates or date ranges that would work in 2019

EHCL Programme Coordinator Rolf Heusser will support you in the organization of your event. Please contact Rolf Heusser (rolf.heusser-gretler@uzh.ch) with any questions. A small jury from the NRP 74 leadership will select the successful proposals.

Submit applications to Fieke Franken (fieke.franken@uzh.ch) until 30. September 2018

Proposals accepted until	30 September 2018
Proposal(s) selected until	31 October 2018
Programme details due to Emily Stone (emilyrae.stone@uzh.ch)	4 weeks before the visit

Source: EHCL programme

Joint research

The EHCL programme facilitated joint research projects among its early career participants. Funding was aimed at fostering collaborations and to translate them into concrete research activities. 3 calls, offering funding up to 10,000 CHF, were issued for joint research projects between EHCL participants from two or more different NRP 74 projects. Three proposals were eventually funded resulting in research papers (e.g., [29]). A straightforward application process allowed participants to develop and submit their own projects for seed granting and to take on leadership roles within the research team. Another call assembled a team of early career researchers conducting a rapid review of megatrends in health care, which resulted in a report for the NRP 74 and a paper [37].

Moderation and co-creation of NRP 74-related events

Since the very first NRP 74 kick-off event [30], EHCL scholars have always been actively involved in participating, organizing, and/or moderating the various activities organized by the programme. The objective was to give EHCL scientists the opportunity to try out the skills acquired during EHCL trainings and other events *in the field*, and to strengthen the sense of community within the broader NRP 74 network, which includes senior scientists and the principal investigators (PIs) working on various NRP 74 projects. Concrete examples of the active involvement of EHCL fellows in facilitating and co-designing NRP 74 events include the conference "HSR in Switzerland: What is the way forward?" [31] in June 2021 and the Programme Conference in November 2021 [32].

Advisory board

To ensure that the activities of the EHCL programme continuously met the needs and expectations of the fellows, an advisory board has been established. This is a group of scientists from the EHCL community who continuously consulted with the EHCL coordinators to suggest improvements to existing activities and propose new activities.

Participation in the synthesis process

The EHCL fellows also had the opportunity to participate in the work of the synthesis process initiated by the NRP 74 (of which this report is a part) and coordinated by several members of the NRP 74 Steering Committee [17]. For each of the six areas covered by the synthesis process, two or three EHCL fellows were selected to assist in both synthesizing the evidence generated by the NRP 74 and developing the final key messages for policymakers. Participation in this process allowed for further networking with various stakeholders, as the EHCL fellows were involved in a range of stakeholder dialogues organized to discuss these policy options [33,34].

Career coaching

Career coaching and help with career planning was another centrepiece of the programme. At all events (regardless of format), organizers and coordinators were encouraged to dedicate some time to career coaching. This could include short session in which invited experts spoke about lessons learned during their careers or open discussions about professional development. This was supplemented with site visits and informal meetings at the work sites of various EHCL community members by the EHCL programme coordinator.

1.7 Evaluation of the programme

1.7.1 Overview of data sources

A wide range of heterogeneous data sources are used for the evaluation of the program in this report. These include:

- Material from the EHCL programme produced over the years to organise various activities, including calendars, event descriptions, notes on invited speakers/guests;
- Evaluation of each activity, issued after most events to all participants via the platform “Typeform”;
- A final evaluation questionnaire created by the authors of this report and submitted to all EHCL fellows in late 2021 to assess their perceptions of the programme after four years of participation;
- Statistics collected during the programme: number of EHCLs, attendance at events, number and frequency of events, etc.
- Interim reports from NRP 74 projects, in which PIs were asked to provide their perspective on the programme.

Data from these sources were analysed descriptively and the results are presented in narrative form below.

1.7.2 Description of the EHCL cohort

The participating researchers were selected among the junior and early career researchers working for or collaborating (with a work share of at least 20%) with one of the 34 NRP 74 projects.

Consequently, the main target group were PhD students (postgraduates), but the program was also open to postdocs, research fellows, and medical assistants pursuing a research career at a Swiss university or health institution.

A total of 57 EHCL fellows were selected, including 41 women and 16 men. Participants were selected from various acadmic and professional backgrounds and from all linguistic regions of Switzerland (which reflects the geographic diversity of the 34 NRP 74 projects). Most of them were PhD students (n=37),

followed by research fellows (n=12) and postdocs (n=8). An additional 11 candidates were initially considered but were not formally included in the cohort for a variety of reasons (e.g., they were engaged in an NRP-74 project with only a small work percentage, or only interested in a single skill training, etc.).

1.7.3 Organized activities: overview

A total of 35 events and skill trainings were organized in 2018-2021. The trainings covered the five non-academic competency areas described above. An additional eight events are planned for the final year of programme (2022), bringing the total number of activities to 43.

All face-to-face events of the EHCL programme were combined with a small social event to foster personal contacts between cohort members and strengthen community spirit. Retreats offering the opportunity to spend longer time together (1.5-2 days) were particularly appreciated by EHCL members.

For a detailed description of all activities and events (2018-2022) see Appendix 1.

1.7.4 Participation in EHCL events

On average, the 35 EHCL events were attended by 14 EHCLs and each fellow took part in 8 skill trainings (minimum 1 event, maximum over 20 events). In addition, members of allied organisations (e.g., SSPH+, SHLS) were also admitted to specific EHCL events.

A total of 30 scholars attended more than 10 EHCL events, thus qualifying to receive a special EHCL certificate attesting to the achievement of a broad portfolio of competencies. This certificate has been signed by the president of the NRP 74 and a high-level representative of the SNSF, and handed out to entitled EHCL fellows on April 10, 2022.

EHCL fellows also took part in other activities:

- 14 EHCLs participated in the 6 NRP 74 synthesis reports
- 5 EHCLs collaborated in the preparation of a joint research publication on megatrends in health care
- 3 joint research proposals were developed, each involving 3-4 EHCL members
- 10 members participated in career coaching sessions
- 4 EHCLs were involved in creating social media pages for the community (Twitter and LinkedIn).
- 7 EHCLs participated in EHCL governance through their membership on the EHCL Advisory Board.

1.7.5 Satisfaction of event participants

In 2020, an interim evaluation of EHCL events was summarized based on short questionnaires sent to participating fellows shortly after the event. These questionnaires were sent via the online platform “Typeform” and allowed respondents to rate specific aspects of the attended event or activity, including: Overall Satisfaction; Relevance; Speaker/Lecturer Engagement; Event Atmosphere; Opportunity to Exchange Views; and Organization. Respondents could choose a value between 1 (very dissatisfied) and 5 (very satisfied). The average values for 2018, 2019 and 2020 are presented below.

Table 1: Interim evaluation

Evaluation Year	*Overall Satisfaction*	*Relevance*	*Speaker Engagement*	*Atmosphere*	*Exchange Views*	*Organization*
2018	4.3	3.9	4.3	4.7	4.8	4.8
2019	4.6	4.3	4.7	4.8	4.7	4.8
2020	4.7	4.2	4.9	4.9	4.5	4.8

Max Value=5.0

1.7.6 EHCL programme impact

Fellows' perceptions of the programme are presented here based on the results of a questionnaire sent to them in late 2021. A copy of the questionnaire is attached to the report (see Appendix II). It aimed to systematically collect information on three main areas: 1) the impact of the EHCL programme participants' careers and networks; 2) the synergies created by the EHCL programme; and finally, 3) the strengths and weaknesses of the EHCL programme as perceived by participants.

A total of 28 fellows, i.e., only a portion of the 57 programme participants, responded. However, this was to be expected, since the number of fellows actively involved in programmes activities was lower than the total number of fellows (12 fellows participated in only three or fewer activities). Thus, the results may not be representative of the community as a whole, but nevertheless offer important insights into perceptions of community activities.

Impact on career development and professional/personal networks

82% (n=23) of the surveyed scholars indicated that the EHCL programme had helped them to expand their professional network, many also highlighting the positive impact of this expansion. For example, one scholar emphasized that "at the various EHCL activities or thanks to the programme's support I met a lot of important professionals for my future career". Another pointed out that "organising [an EHCL workshop] led to the establishment of a collaboration between me and other researchers in my group, and another research team in Switzerland."

The vast majority of respondents (82%, n=23) indicated that the EHCL programme helped them build community ties, e.g., by making new friends sharing similar career goals, such as a responded who said: "I made a lot of friends, we organised many coffee-breaks and discussions together, both online during the pandemic and in person". The connections made through the EHCL programme also provided a certain level of peer support, as indicated by another scholar: "It helped me to feel less alone in my struggles as a PhD".

A further important goal, namely improving the skills of participating fellows, also appears to have been achieved. *82% (n=23) of the participants indicated that they acquired new skills or improved existing ones*, citing one or more skills they developed thanks to the EHCL programme. Among them, leadership skills, soft skills for the work-environment, media communication skills, presentation skills and networking skills were frequently mentioned.

The questionnaire also tried to gauge whether the programme helped shape participants' professional profile and career choices. In this regard, *68% (n=19) participants indicated mentioning being part of the EHCL community* in their CVs, during job interviews, or when interacting with other professionals in different contexts (e.g., at conferences). Two more fellows (7%) stated that they have not yet done so but planned to do so in the future. The questionnaire also asked participants to share how the EHCL

programme impacted their career choices. 11 (40%) provide comments in this regard, indicating, for example that an instructor present at one of the EHCL events had later proved instrumental in preparing a funding application. Other comments were positive, though less specific, for example stating that, while the "EHCL experience did not directly impact my career choices – it has opened my horizons and interests regarding my future career".

Interconnections and synergies between community members

The EHCL was forward-looking in that it aimed to create a community of scientists who would trust each other and collaborate as they progress in their career, even after the completion of the NRP 74. However, since the community has now been in place for several years, we also wanted to find out whether some connections and synergies had already developed among community members.

Survey respondents were thus asked whether they had produced any kind of scientific output with other EHCL members. A large number of the 28 respondents indicated having either collaborated with another scientist on a scientific paper output (n=17), organizing a scientific event (n=17), or a knowledge-transfer activity (n=8).

To find out if other low-threshold synergies have developed within the EHCL community, the survey also asked fellows to name any other informal collaboration with other EHCL participants. These could include, for example, asking other EHCLs for advice on methodological issues or career questions. *A total of 18 scholars (64%) reported such informal connections,* indicating, for example, having "visited the institutes where some fellows were employed and they introduced me to their colleagues for networking". Another EHCL stated that "through the EHCL network I met colleagues working on the same topic at another university. We had several meetings and tried to find an area for collaboration". Another relevant example of such informal synergies was a fellow who recounted consulting peers about opportunities and procedures regarding PhD mobility via e-mail and LinkedIn.

Strengths and weaknesses of the programme

The strength of the program most often cited in the questionnaires was that it provided *numerous opportunities for networking with peers, with experts in the field, and with other NRP 74 projects***.** One scientist aptly described the EHCL programme as "the glue that tied the NRP 74 projects together". Many fellows also praised the atmosphere that prevailed among programme participants, in particular the informal and social aspects within the community and at events: "Great team work and team spirit among those involved", as one young scientist put it.

Another particularly appreciated aspect of the programme were the *events it organised or had organised. The content, the regularity, and the social aspects of EHCL activities were also praised***.** The coaches, not least the programme coordinator Dr. Rolf Heusser[1], were seen as instrumental in the programme's success.

Other strengths receiving special mention included:

- the **participatory approach**, i.e. that the programme, without making it mandatory, offered fellows numerous opportunities to contribute to events, "keeping the same people in the loop" if they wished,
- the **skill trainings**, praised by one fellow as offering the chance to "gain skills not covered by my PhD programme".

Few weaknesses of the programme were mentioned, most of them related to *organisational shortcomings.* Two scholars who joined the NRP 74 at a later stage pointed out the difficulty of integrating into the EHCL community because they were not familiar with the organised activities and overall structure

[1] Of note, Rolf Heusser was explicitly praised nine (n=9) more times in the final question of the survey, which offered the opportunity to make additional comments.

of the programme. Two PhDs noted that some activities overlapped with their university courses. Other comments referred to the fact that fellows could have been more involved in choosing the topic of some of the trainings, or that the administrative aspects were sometimes complicated: “When additional funding was available […], the mechanisms were quite slow and unclear in terms of implementation”. Two comments indicated that there were too few opportunities for informal contact with peers outside of organized activities.

The *disruptions caused by the COVID-19 pandemic* were referred to as weaknesses by four EHCLs. Another regretted that the programme did not do enough to maintain programme activities during the pandemic. Yet another felt that the pandemic had stalled promising initiatives, such as the advisory panel.

Fellows also shared critical insights and suggestions for possible future EHCL programmes. Four *suggestions concerned seed funding opportunities.* Their availability was commended: “I loved the fact that early career researchers were able to apply for smaller grants [such as the] visiting expert grants”, one comment stated, but it was felt that their implementation needed some fine-tuning, either through more systematic presentation or through clearer rules. The *advice to take a long-term perspective* was also mentioned four times. Three scientists suggested that the generations trained under the EHCL programme should be included in future similar initiatives; one fellow recommended ensuring from the outset that participants were adequately informed about the future prospects of the EHCL programme. It was also mentioned that building strong connections among members should remain the focus of future EHCL-like initiatives and could be achieved through the "formation of topic- or method-oriented groups" within the community or through establishing regional leaders who could "organize local networking events to facilitate more informal connections between researchers in the same region." One fellow stressed the importance of keeping the focus of networking on community building.

Three respondents suggested a more systematic involvement of PIs or supervisors of early career researchers in a network such as the EHCL. This, according to one scientist, would increase their willingness to let young scientists invest time in community and skill building activities ("Future EHCL students should be supported by their employers [...] to ensure that they can benefit from the programme as much as possible and attend a maximum of events and courses").

Finally, and most importantly, the question whether EHCL-like programmes should be part of future NRPs received an average rating of 8.9 on a scale of one to ten.

1.7.7 PIs’ perception of the programme

The PIs let their scientific collaborators participate in the EHCL community and were sometimes also directly involved in its activities. They were asked to express their view on the programme orally during the NRP 74 programme conferences and in writing in their interim reports.

In addition, *data from 28 interim reports* were available for analysis. In all but one of these, the PIs said that they were aware of the EHCL programme's existence and its activities. Only one felt that, despite knowing about the EHCL in general, information about single activities (and how to join them) remained unclear.

27 PIs reported being fully informed about the EHCL program, 22 indicated that at least one junior scientist on their team had joined the EHCL community. Three other projects had team members who were eligible to participate in the EHCL program but did not do so due to time constraints (some projects joined NRP 74 at a later date with a second call); one project indicated that there were no team members who were junior scientists; and one project cited the presence of "time constraints" as a reason for not participating.

Of the 22 projects where at least one team member participated in EHCL activities, 14 PIs were unambiguously positive, 6 expressed neither positive nor negative views, and 2 indicated difficulties with the programme (mostly due to problems with coordinating scientists' time commitments).

The 14 PIs providing unequivocally positive feedback based it on the opportunities offered by the programme to junior scientists. The most frequently named positive aspect was an *opportunity to easily network with peers*, followed by the *possibility to develop new and useful skills for their careers*. One report noted, for example, “this was a great learning experience, where the PhDs were taught to present in an original, innovative way.” The third aspect some reports stressed, was that the EHCL programme *encouraged the exchange of experiences with scholars from other institutions, facilitating the formation of a community*. As one report noted, "young researchers can benefit from the experiences of other researchers and from additional external input from individuals who are not necessarily from the same setting or discipline."

It is noteworthy that some reports expressed the desire to expand the program to allow participation beyond the time frame of the NRP 74 and to include external early career researchers not working for an NRP 74 project. For example, one report stated, "We would welcome the extension of the EHCL offer to other doctoral students in the field of health services research." In addition, two PIs suggested that closer collaboration between the EHCL program and other existing initiatives for health services network building (SLHS) was needed. Two other PIs emphasized that there should be more clarity about recognition (e.g., through certification or ECTS) of participation in EHCL activities, given that young scientists' schedules are already very busy, with courses (for PhD students) and work commitments.

1.8 Lessons learned, limitations and recommendations

1.8.1 Lessons learned

A number of lessons can be drawn from the experience of the EHCL programme and from the overview and evaluation provided by this report. First, it was possible *to build a strong and stable community of young health services researchers* within a few years. The *trust-building approach* used to achieve this proved successful, especially through the numerous (face-to-face and online) meetings of the researchers, which allowed mutual knowledge to be gained and solid bonds to be formed. Second, members were trained individually and in groups *acquiring new skills and competencies* that are not taught in standard academic doctoral programmes. These competencies (leadership, soft skills, knowledge transfer, etc.) are critical for future leadership positions in the Swiss health care system and were found by many scholars to be a very helpful addition to the curriculum.

Third, satisfaction surveys, interim surveys among EHCLs in 2020, and individual feedback to peers and also recorded in this report demonstrate that *satisfaction* among EHCL participants was high. Interviews with NRP 74 project leaders during site visits confirmed these positive impressions. On this basis, it seems worthwhile to maintain and develop the EHCL community beyond the end of NRP 74.

Finally, many of the experiences gained with EHCL community building and capacity building are general in nature. Therefore, it seems plausible to apply these lessons to other research areas not necessarily concerned with health care or the specifics of the NRP 74.

1.8.2 Limitations to the current evaluation of the programme

In considering the findings and recommendations developed as part of this report, some limitations should be kept in mind. To start with, some achievements of the EHCL programme can be objectified (e.g., the joint activities of the newly established community), but many others are based on subjective feedback from the fellows themselves or from their PIs. The real impact of the EHCL programme on the fellows' careers cannot be measured until a later date. In addition, feedback in the final questionnaire

(see Section 1.7.6) was obtained from only about 50% of the EHCL fellows, which might be representative of only a portion of the community. However, this is partially compensated by the indication of the median rating of programme activities (see Section 1.7.5). Finally, feedback from PIs was obtained from interim reports, reflecting their thoughts about the EHCL programme at an early stage. This could be remedied by a future evaluation based on the perspective of the PIs in the final NRP 74 project reports, which are still in progress at the time of finalizing this report.

1.8.3 Recommendations and outlook

1. Build on the existing foundation of the EHCL Community

The EHCL programme has created a vibrant community in health services research: This community should be sustained, its members should have a stake in its future, and its community-building experience should be used to integrate new members.

How? Make is easy for new members to join, and encourage existing fellows to stay connected (e.g., by offering community activities, creating seed-funding opportunities and providing support for organizing events). Ensure that the open, participatory and collaborative culture is passed on, for example, by maintaining retreats and social evets where new members can appreciate the community spirit.

2. Maintain the focus on skill- and competence-building.

Maintain a continuous offer of skill courses and opportunities to acquire new competences relevant for the career of community members as an added value for joining the community.

How? Enquire what (also non-academic) skills are desired by members and offer courses or opportunities to practice them (e.g., presentation skills). Make sure the rules for participating, organizing, or leading activities are clear and low-threshold. Record and show the successful outcomes that members have achieved as a result of community efforts to build skills and competencies.

3. Establish the community within the Swiss health landscape.

Institutionalize the existing community and connect it to other established networks in the Swiss health care sector (e.g., Swiss School of Public Health or Swiss Learning Health Systems).

How? Show related networks how to benefit from the experiences gained by the EHCL project (community building and skill building) and create a room of mutual learning and joint activities between communities. Early career researchers should not have to ‘choose’ between different competing networks but benefit from the comprehensive advantages they offer. Involve PIs and senior researchers so as to firmly entrench the community in the Swiss health landscape.

4. Bolster the outreach of the community.

Enlarge the collaboration with practice and politics, so that the community becomes better established and its outputs (projects, science communications) more useful.

How? Increase the visibility to the public and other institutional actors by communicating successful outcomes (e.g., projects facilitated by the community and career trajectories of its members).

2. Focus study

Defining essential factors and developing a blueprint strategy for building and maintaining an integrated research community driven by emerging healthcare leaders (EHCL+) as a backbone for future health services research in Switzerland

2.1 Background

Health services research in Switzerland is at the crossroads: Years of successful research and major investments by public and private funders have created awareness and impact in practice that go beyond purely scientific research. On the European level, a concerted effort of participating countries has gained momentum which will foster developments in individual countries ("European Partnership under Horizon Europe: Transforming health and care systems").

In particular, the NRP 74 has facilitated a context for the further development of health services research in Switzerland through the establishment of a far-reaching and to-date unknown support program for young and upcoming investigators and healthcare leaders that accompanies and connects the dots among research projects of the NRP as well as facilitates the professional and targeted dialogue with participating stakeholders.

The experience gained from this unique NRP 74 platform of exchange and collaboration will be leveraged to define essential factors for the establishment and maintenance of an integrated research and practice community that brings together researchers, politicians, practice stakeholders and patients on a continuing basis.

We propose a blueprint strategy based on best practices that is essential for the synthesis of the NRP's special EHCL program and its long-term success and that helps to institutionalize the positive effects in the long term for the betterment of health services research in Switzerland.

The added value of a support program specifically tailored to emerging healthcare leaders - EHCL**+** - will shed light on the informal and fundamental factors that shape an integrated research and practice community in general and that will be transferable and applicable in other settings and across stakeholders in Swiss health services research in the future.

2.2 Objective and research questions

The overarching goal is to foster health services research in Switzerland through the establishment and maintenance of an integrated research and practice community and a continuous stakeholder involvement. For this purpose, the already integrated community of the NRP 74 should be leveraged and institutionalized. Our study pursued the following three main research questions to derive a strategy:

1. Determine the **essential factors for setting up and managing an integrated research community** (EHCL+) in HSR that will serve as the backbone for the establishment of a new domain.
2. Evaluate the **interactive process and collaboration** of NRP 74 projects with stakeholders and champions in practice.
3. Draw conclusions for **genuine "best" management practices** and policy dialogues with the purpose of establishing an innovative and sustainable knowledge transfer on a continuing basis that supports future health services research in Switzerland.

For the accomplishment of the described objectives, it was essential to define integrated health services research based on underlying constructs and models within and outside of Switzerland and to compare the current status with an "ideal" set-up of health services research that speaks to stakeholder needs (research, policy, management, providers and patients). Success factors derived from the NRP 74's

EHCL initiative and other research areas provided insights into how to establish and how to maintain an integrated research community in health services research.

Rationale for the deep focus study:

The EHCL program was/is a unique investment and accomplishment that must be assessed and leveraged beyond the pure professional development and networking aspect.

There was no data as a result of the NRP projects that could have been used to answer the essential synthesis questions. Therefore, a more detailed study was necessary.

A pre-study with the EHCL community provided valuable insights into the design of the focus study, its approach and evaluation.

The deep-dive focus study evaluated qualitatively relevant factors as well as their combination and correlation that create the backbone of long-term collaborations in an integrated research community.

2.3 General proceeding and methodology

We reviewed the international literature with respect to successful models and strategies when establishing and maintaining an integrated research community. Simultaneously, we conducted several interviews with leading scholars and founders of health services research communities in the United States and Canada where health services research is already further advanced. Whereas many professional development or alumni networks exist, **a truly integrated community in which equal participation of researchers and other stakeholders is accomplished could not be identified**. AcademyHealth (https://academyhealth.org/) in the United States had similar aspirations and objectives in the beginning but developed into a mostly academic conference management entity in which practice stakeholders are rarely involved.

The interviews revealed promising examples initiated by the private sector (for example the **Global Health Scholars Program** of the Novartis Foundation) and some universities (for example the mentoring contract of the Hochschule für Gesundheit (HES-SO Valais-Wallis). However, none of these approaches seemed to provide **mutual** benefits for the different parties involved as they were **either driven by specific objectives** (targeting upcoming talents and recruiting them) **or supported by governmental funding to enhance scientific leadership**.

Consequently, there was no “role model approach” we could use as a benchmark and a deep dive into the underlying constructs and concepts of an integrated community became necessary.

We conducted a pre-study with the EHCL-community to shed light on the essential factors for collaboration on the:

Intra-project level,

Inter-project level, and

Between projects and stakeholders.

Quotes on specific lessons learned and examples were collected in addition to the perceived factors that contribute to the establishment and maintenance of an integrated research community.

Based on the insights of the pre-study, we prepared the qualitative deep-dive focus study, for which we conducted a total of **55 interviews** – 45 interviews with EHCL, PI’s, and stakeholders (the latter representing 62%) as well as with international experts leading the establishment of health services research in other countries (the selection of and contact with NRP 74 respondents was a convenience sample, but all stakeholder perspectives were represented as well as different regions and languages).

Interviewees represented the following groups of relevant stakeholders concerned by the specific outcomes of the study:

- Governmental: parliament, cantons, federal offices,
- Payers: insurance companies, employers,
- Patients: patient interest groups,
- Providers: service providers, allied health professionals,
- The research community and further educational initiatives,
- The SNSF for future NRPs.

For our analyses, we used content management techniques to condense relevant management factors, their interactive relationships/hierarchies and stakeholder needs. We reviewed findings in several rounds among our global network of experts. As a next step we conducted comprehensive research on those **"community mechanisms"** that resulted from interviews as key management factors based on several rounds of expert reviews.

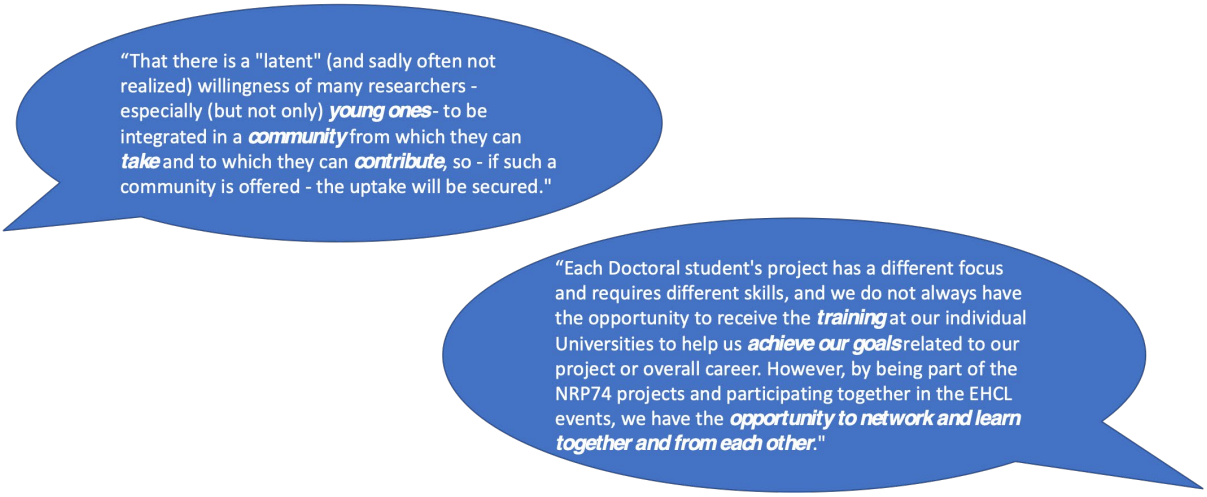
We merged interview results and background research to propose a blueprint strategy for the continuation and further establishment of an integrated research and practice community. The deep-dive focus study allows for conclusions how to maintain and support an integrated research and practice community as the "backbone" for future health services research in Switzerland. **These "best management practices" will facilitate a continuous knowledge transfer and policy collaboration beyond groundbreaking research.** Finally, the stakeholder dialogue facilitated the discussions and first conversations to translate research into practice.

2.4 Results

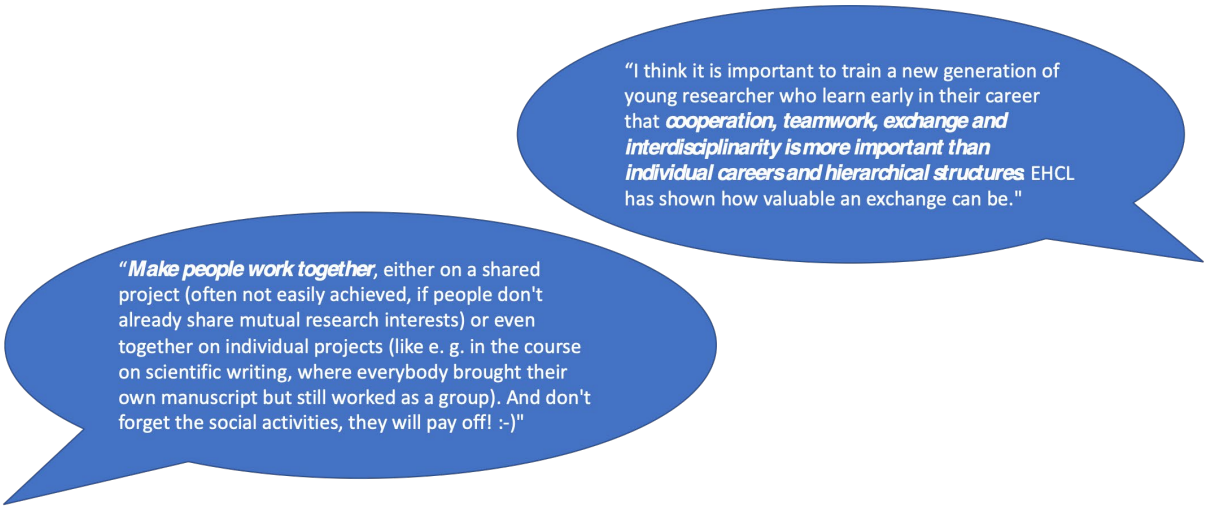
2.4.1 The starting point: the EHCL program as a unique feature of an NRP

To get first insights into the essential experiences of EHCLs and the crucial elements that contributed to the success of the program we contacted EHCLs in October/November 2020. The following selected quotes provide an overview of the lessons learned as perceived by the EHCLs.

"Is there any specific lesson you learned during your experience with an NRP74 project that could be relevant for the idea of building a community?"



Source: Janus 2021



Source: Janus 2021

2.4.2 Key factors for establishing and maintaining an integrated research community

At the same time a pre-study on the **essential factors for an effective intra-, inter-, and extra-project collaboration** was conducted and resulted in the following word clouds that clearly show the importance of certain **"mechanisms"** to facilitate an **effective collaboration on different levels**.

“In order to be effective, an **intra-project** collaboration (within a particular project) must be…”

Source: Janus 2021

“In order to be effective, an **inter-project** collaboration (between different projects) must be…”

Source: Janus 2021

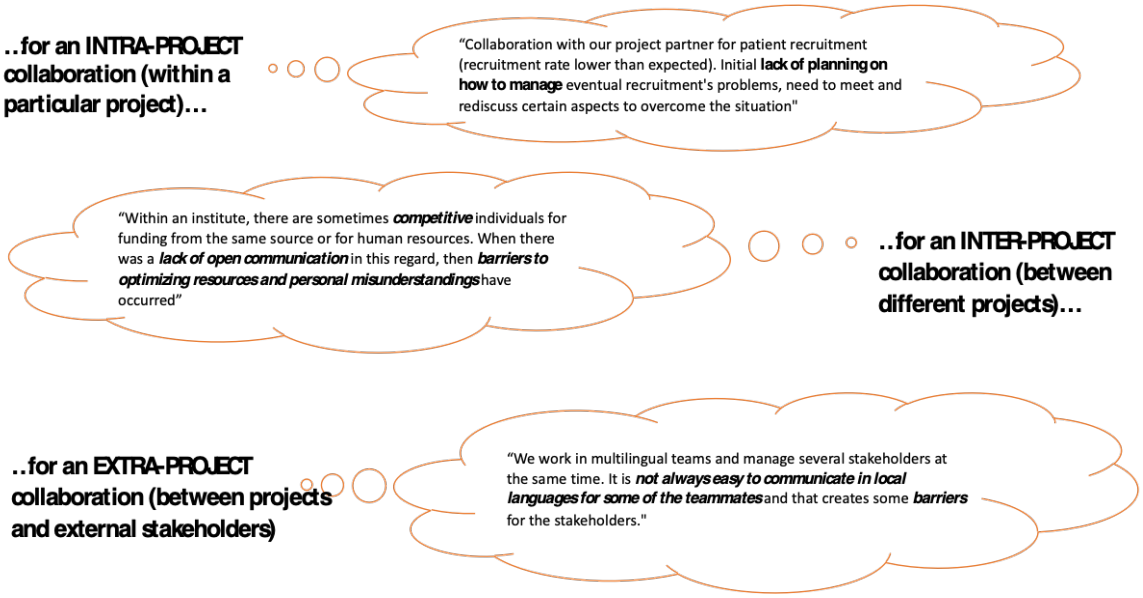
"In order to be effective, an extra-project collaboration (between projects and external stakeholder) must be…"

Source: Janus 2021

Examples of positive collaborations and their success-driving factors…

Source: Janus 2021

Examples of difficult collaborations and their challenges…



Source: Janus 2021

2.4.3 The focus study: a deep-dive investigation with stakeholders, PIs and EHCLs

First insights from the 55 interviews conducted before a detailed analysis of essential factors and best management practices revealed that some of the **assumptions made during the pre-study and discussions among the team and steering committee members had to be reconsidered**.

First, the **backbone of the community should be the stars of the field and the stakeholder groups** as they give the legitimacy and financial support (either directly or they attract it). The young researchers cannot and should not serve as the backbone of the community or association. They are essential, but the input in terms of mentoring and role-modelling for example is contributed by famous scholars.

Second, famous scholars as well as other stakeholders (industry, political) need a clear "reason" (motivation) why they should contribute. Stakeholders asked for the practical relevance of research and stressed that health services research should not be "too" academic. Research also must be close to what is needed by policymakers. Most interviewees openly stated that they would not be in favour of the establishment of "another" association or conferencing organization that solely serves the needs of either academia or practice.

Third, and most importantly, interviewees were concerned about an **equal distribution of academic and practice-related interests**, pointing out that communities mostly driven by either one of the two perspectives were not successful in the long term. HSR is an applied/real-world field of research that can only be leveraged when **equal commitment of stakeholders is ensured**. To achieve this, a **public-private partnership** was favoured as a backbone for the integrated community (also to secure funding). **All interviewees agreed that there exists a substantial need to bring all parties together and leverage mutual benefits**, for example via a **knowledge and project brokering platform** that serves the needs of all parties involved. If possible, an **independent entity** should convene the founding fathers & mothers to launch the community and moderate the set-up. **In the next step, a dedicated moderator & manager should lead the community**.

Finally, we would like to point out that stakeholders and EHCLs were extremely responsive and gladly participated in our study whereas principal investigators were less engaged and more focused on personal research objectives.

The engaged participants repeatedly pointed out **several challenges** that prevented the establishment of an integrated community in the past:

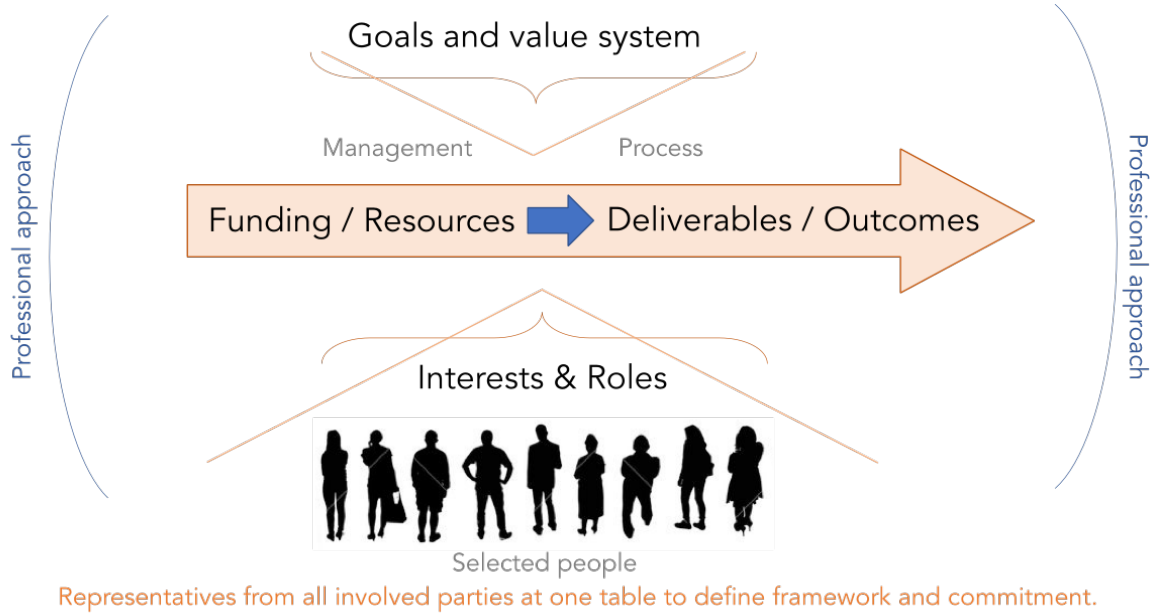
- Past **experiences**/limited **resources** (time & money)/professional **cultures**,
- Lack of **trust**, **confidentiality**, psychological safety,
- Limited perspective: "**egomania**" and "me-me-me-culture",
- Missing "**abstraction**" and **roadmap** follow-ups (project management).

They also highlighted **content-related aspects** that could be dealt with by the community:

- Determine and contribute to **long-term overarching interest** – for example, the establishment of a national cohort,
- **Pragmatic** problem-solving, **management competencies,**
- Mentorship and **professional development** linked to **alumni** obligations,
- Rethinking **incentives** and career opportunities – how to **incentivize collaboration** in the long run and **navigate the academic (and practice) jungle.**

We then analysed the interviews in detail as described in the methodological part of this report. The focus of the interviews was on the **interactive process perceived during the NRP 74 projects** (if NFP 74) and/or on **the elements/factors that other stakeholders perceived as essential for establishing and maintaining an integrated research and practice community** (we added "practice" due to the above mentioned first insights). We condensed our findings in a **strategic and operational perspective** described in the following.

Figure 5:Strategic perspective: the set-up and the framework

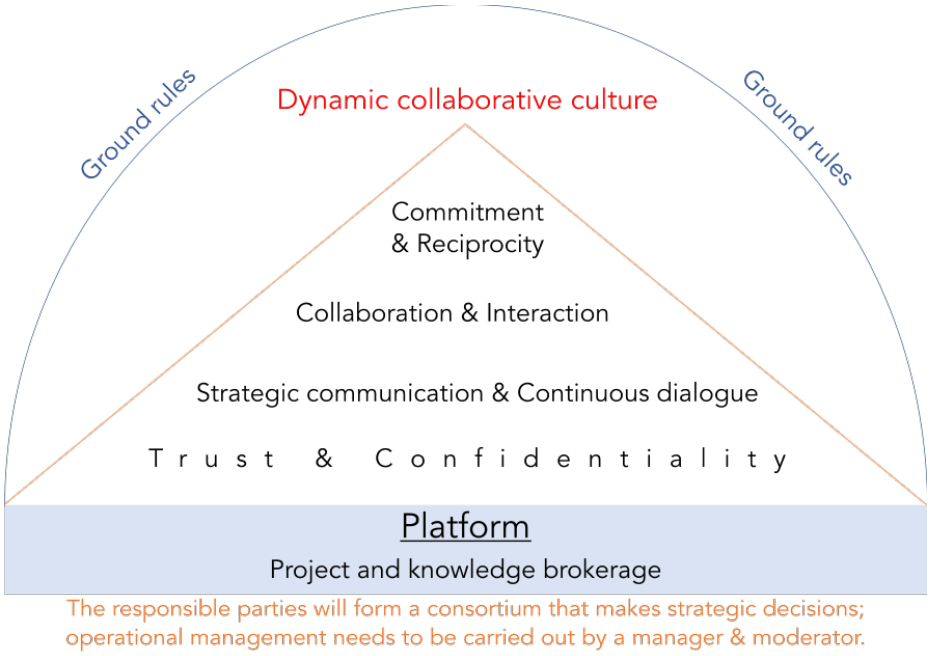


Source: Janus 2021

As mentioned earlier, representatives from all parties involved must come together at one table to define the framework and commitment ("deliverables") to the community. Individual interests/benefits and roles must be defined clearly from the outset. Community members should be selected based on their fit, willingness to contribute and perspective (representation). The "right" people should be part of the community – not "the more the better". The community's goals and underlying value system (mission statement, purpose, vision etc.) as well as the terminology must be clearly defined before the community management process that translates funding/resources into deliverables and outcomes is agreed upon by the contributing parties.

During this set-up phase, and as a general approach to managing an integrated community, confidentiality is key. Several interviewees attributed a lack of commitment and knowledge sharing to the fear of breaches of trust and confidentiality. Non-disclosure agreements or best practices in community membership could become part of the framework for a professional approach to establishing and maintaining an integrated research and practice community. It must be "safe" to talk about ideas and findings.

Figure 6: Operational perspective: the living system of the community



Source: Janus 2021

The operational perspective describes the **"living system" of the community**. It is first and foremost based on certain ground rules or **"codes of conduct"** that derive from the strategic set-up described above. It has two dimensions: the **consortium** that is made up of the responsible parties and makes **strategic decisions,** and the **operational management** that is carried out by a **manager and moderator** on a daily basis to accomplish the overarching objective of a **dynamic collaborative culture**. The **project and knowledge brokerage platform** represents the technical interaction infrastructure that facilitates the exchange. It offers opportunities to engage in small projects or respond to requests for insights on a permanent basis.

Most importantly, our analyses revealed the factors/constructs – we call them **"community mechanisms"** – that are essential to establish and maintain an integrated research and practice community according to the interviewees.

The basis for all communities is a certain level of **trust and confidentiality** as already described in the strategic set-up. It builds the basis for any **communication and creates the context for a continuous dialogue**. Again, interviewees pointed out that classical conference formats focusing on the presentation of scientific abstracts do not serve this purpose but rather foster a one-way communication. A continuous dialogue between science, practice and policy must be ensured through **strategic two-way communication (formats)**. This goes together with building bridges and merging data across silos which further incentivizes **dialogue and collaborative interaction** on the next level. The already mentioned platform could serve this purpose well but must be maintained and moderated with great care.

To support this process, the **moderator** must help teams with the **abstraction of topics and terminology** so that they become relevant across projects and teams, thus connecting silos. This also facilitates understanding, as experts from different backgrounds frequently do not speak the same "**professional language**". This gains importance as project diversity and specialization increase.

Long-term community commitment is a reciprocal act – an individual's contribution is considered in conjunction with his or her benefit from the community and its reciprocal action. This community mechanism represents the top of the pyramid, underlining its importance in establishing and maintaining an integrated research and practice community. The order of the community mechanisms is hierarchical by purpose – **the top levels rely on the fulfilment of the lower levels**.

2.5 Stakeholder dialogue and next steps with interested parties

The stakeholder dialogue gave us the opportunity to discuss some of the findings and next steps with interested parties. Key insights and feedback are summarized in the following:

- To achieve a dynamic collaborative culture, it is essential that all parties be equally represented and heard.
- The philosophy of an alumni organization could be helpful in fostering long-term community commitment. This goes beyond the one-sided notion of an approach purely targeted at professional development. A real community is a "give-and-take". There must be a clear definition of what its members want to learn, receive, and contribute. This creates the basis for openness, transparency, and trust.
- A community is a specific way of organizing people and therefore requires a plan, objectives, resources, people, and their commitment to/fulfilment of different roles.
- The purpose/objectives of the community are essential to design its Gestalt – form follows function.
- The members of the community must be carefully selected and screened for fit. Similarly, the role of the moderator must be carefully defined and selected.
- There are always people/organizations who would like to contribute and others who are not interested. It makes most sense to start with the "willing" because willingness and commitment are critical.
- A clear objective is essential and should not be set too high, so that a quick take-off is possible – even if only a small number of members are initially committed. Small wins help to establish the reputation of the community and create an incentive for others to contribute.
- The human factor is essential and usually neglected: personal interest and motivation are key for the community. This can be driven by topics, people, or the genuine interest in exciting news or trends that create a learning experience.
- The format of meetings and get-togethers should be regular and possibly in the same location. They should not be over-engineered and not too directive: ample room for discussion and interactive

workgroups are key. The context should be fruitful for personal encounters (bilateral or in small groups).

- The culture of the community must be actively shaped – a learning culture seems to be conducive but not evident. People need to be open to criticism and adapt.
- The community should connect the dots between silos/research areas. To be successful scholars must not only excel in their field, but also employ tools such as project management, communication, public relations, marketing, and pitching.
- The next generation's perception that career pathways are cumbersome, often irrational, and driven by old structures should be tackled by the community.
- Community outcomes must target the needs and expectations of various stakeholders to ensure multi-party engagement and commitment (publications, reports, lay summaries, implementation advice etc.).
- The outcome can also be an engagement, an exchange, or analysis of a different kind. It is not always a publication (e.g., small projects at cantonal level).
- Defining “joint” deliverables for the target audiences of academia and practice will be challenging but important to strengthen the community and foster its dynamic culture.
- Not all young scholars stay in academia, so engaging and reaching out to industry and practice stakeholders is essential to make connections and create opportunities for jobs and projects.
- The challenges in healthcare are complex and must be tackled jointly – involving all stakeholders.
- The community should be visible and offer a platform for exchange of knowledge/data and opportunities.
- Trust as a foundation is essential for building the community.

2.6 Conclusion

We were commissioned to evaluate the interactive process of the projects and extract essential factors (“community mechanisms”) that contribute to the establishment and maintenance of an integrated research and practice community in health services research.

Besides the requested deliverables we learned **additional facts** during the interviews that relate to past experiences, challenges, and constructive ideas. We condensed the various factors mentioned by the interviews into **a strategic and an operational perspective** to provide a **comprehensive approach to a dynamic collaborative culture that is fuelled by the active management of the derived “community mechanisms” in a defined context** – the demands an integrated research and practice community must meet if it is supposed to be maintained in the long term.

The **stakeholder dialogue** confirmed most of our proposed strategy and added further insights on how to bring the community to “life”. Clear statements of interest from involved stakeholders were made and can be pursued further.

3. Synthesis conclusion and outlook

To conclude and to merge the findings and recommendations of the two parts, this synthesis report revealed several insights and recommendations.

First, the very positive evaluation of the NRP 74's EHCL programme concluded that the overarching objective of building a strong and stable community of young health services researchers has been successfully achieved over the course of the NRP 74. This is/was primarily due to its trust-building approach from the onset – facilitated by various meetings in which new knowledge and skills (individually and team-based) were acquired and exchanged, and close ties developed.

Satisfaction with the additional competencies acquired and applied was high among EHCL participants and acknowledged by principal investigators of the NRP 74 research projects. Therefore, it is deemed worthwhile to maintain and develop the EHCL community beyond the NRP 74 and contemplate a further application of the experiences gained with the EHCL community building and capacity building to other research areas not necessarily concerned with health care or the specifics of the NRP 74.

In particular, the evaluation of the existing EHCL programme of the NRP 74 resulted in the following recommendations:

- **Build on the existing foundation of the EHCL Community:** *The EHCL programme has created a vibrant community in health services research. This community should be sustained, its members should have a stake in its future, and its community-building experience should be used to integrate new members.*
- **Maintain the focus on skill- and competence-building:** *Maintain a continuous offer of skill courses and opportunities to acquire new competences relevant for the career of community members as an added value for joining the community.*
- **Establish the community within the Swiss health landscape:** *Institutionalize the existing community and connect it to other established networks in the Swiss health care sector (e.g., Swiss School of Public Health).*
- **Bolster the outreach of the community:** *Enlarge the collaboration with practice and politics, so that the community becomes better established and its outputs (projects, science communications) more useful.*

The focus study encompassed a broader range of perspectives on the EHCL programme and, in particular, on establishing and maintaining an integrated research **and practice** community. It provided answers to the classical "so-what" question that frequently arises when a successful initiative is to be institutionalized. Many perceptions of the EHCL programme evaluation were confirmed by the stakeholders, but some diverged.

First, the initial question of how to build and maintain an integrated research community had to be revised to include "and practice" as health services research is *ex definitione* a practice-based field of research and the involvement of stakeholders from practice is essential to secure input (cases, empirical studies etc.), the funding necessary for the upkeep of the community, and other key opportunities for young researchers. Second, the idea that the young researchers should act as the backbone of the community was reconsidered: interviewees agreed that established scholars should take on that role and an operational day-to-day professional management would be needed to secure commitment and exchange.

In general, it was pointed out that renowned scholars as well as other stakeholders (industry, political) need a clear "reason why" (motivation) they should contribute. Stakeholders asked for the practical relevance of research and stressed that health services research should not be "too" academic. Research also must be close to what is needed by policymakers. Most interviewees openly stated that they would

not be in favour of the establishment of “another” association or conferencing organization that solely serves the needs of either academia or practice.

Most importantly, interviewees were concerned about an equal distribution of academic and practice-related interests, pointing out that communities mostly driven by either one of the two perspectives were not successful in the long term. HSR is an applied/real-world field of research that can only be leveraged when equal commitment of stakeholders is ensured. To achieve this, a public-private partnership was favoured as a backbone for the integrated community (also to secure funding). All interviewees agreed that there exists a substantial need to bring all parties together and leverage mutual benefits, for example via a knowledge and project brokering platform that serves the needs of all parties involved. If possible, an independent entity should convene the founding fathers and mothers to launch the community and moderate the set-up. In the next step, a dedicated moderator and manager should lead the community.

We condensed our findings in a strategic and operational perspective to respond to the “how to”-question in a most applicable way. For the strategic set-up **representatives from all involved parties** must come together at **one table to define the framework and the commitment** (“deliverables”) to the community. **Individual interests/benefits and roles** must be defined clearly from the beginning. Community members should be selected based on their **fit, willingness to contribute and their perspective** (representation). The **“right” people** should be part of the community – not “the more the better”. The **goals** and the underlying **value system** of the community (mission statement, purpose, vision etc.) as well as the **terminology** must be clearly defined before the **management process** of the community that translates **funding/resources** into **deliverables and outcomes** is being agreed upon among contributing parties.

Once the set-up is complete the operational perspective describes the **“living system” of the community**. It is first and foremost based on certain ground rules or **“codes of conduct”** that derive from the strategic set-up described above. It has two dimensions: the **consortium** that is made up of the responsible parties and makes **strategic decisions** and the **operational management** that is carried out by a **manager and moderator** on a daily basis to accomplish the overarching objective of a **dynamic collaborative culture**. The **project and knowledge brokerage platform** represent the technical interaction infrastructure that facilitates the exchange. It offers opportunities to engage in small projects or respond to requests for insights on a permanent basis.

Most importantly, our analyses revealed the factors/constructs – we call them **“community mechanisms”** – that are essential to establish and maintain an integrated research and practice community according to the interviewees:

The basis for all communities is a certain level of **trust and confidentiality**. It builds the basis for any **communication and creates the context for a continuous dialogue**. This goes together with building bridges and merging data across silos which further incentivize **dialogue and collaborative interaction** on the next level.

Long-term commitment to the community is a reciprocal act – an individual’s contribution is considered in conjunction with his or her benefit from the community and its reciprocal action. This community mechanism represents the top of the pyramid, underlining its importance in establishing and maintaining an integrated research and practice community. The order of the community mechanisms is hierarchical on purpose – **the top levels rely on the fulfilment of the lower levels**.

The focus study revealed a possible **comprehensive approach to a dynamic collaborative culture that is fuelled by the active management of the derived “community mechanisms” in a defined context** and that could respond to the demand an integrated research and practice community must meet if it is to be maintained in the long term. The **stakeholder dialogue** confirmed most of our proposed strategy and added further insights how to bring the community to “life”.

The two perspectives reflected in this synthesis report can **serve policymakers and managers alike** when designing an integrated research and practice community. The challenge will be to **apply, implement, and nourish** the described community mechanisms within the already established EHCL community to **lift it to the next level or integrate it into a new community in which stakeholders play an equal role**. This will be essential to building up a sustainable and strong research and practice community in Swiss health services research.

Annex I

Detailed description of EHCL events in 2018-2021

In this section, we present a chronological overview of activities organised by the EHCL programme from 2018 to 2021, providing at the same time a comprehensive account of the evolution of the EHCL community.

Activities in 2018

The year 2018 was the first official year of the EHCL programme; it comprised the following activities

Table 2: Emerging Health Care Leaders Programme, Event calendar 2018

Date	*Location*	*Activity*	*Organizer*	*Duration (days)*
March 28, 2018	Berne	WS: Presentation skills/Science slams	Rolf Heusser	0.5
April 11, 2018	Berne	EHCL opening event - Workshop Career/Project grants - Workshop: Strategic Networking - Science Slam Competition - Networking with Wennberg guests	Rolf Heusser SNSF staff Emily Stone	1.0
April 12/13, 2018	Berne	Wennberg International Conference Incl. presentations “Best of EHCL’s”	Milo Puhan	1.5
June 21, 2018	Berne	Spark Session, Bern: Patient Centered Care Social event including life lesson talk	Luca Crivelli	0.75
Aug 31, 2018	Lausanne	Programme conference NFP 74 Knowledge Transfer Workshop	NFP 74	1.0
Sep 13/14, 2018	Berne	Workshop Scientific Writing	Emily Stone	2.0
Oct 4/5, 2018	Zürich	Retreat EHCL Programme -Workshop project management	Rolf Heusser Fieke Franken	1.5
Dec 13, 2018	Zürich	Spark Session From Evidence to politics	Gutzwilller Rickenbacher	1.0

The first activity was a skills training workshop focused on presentations skills and the development of competencies for presenting scientific results both in an academic context and to a wider public. The workshop was organised and led by Dr. Rolf Heusser, the main coordinator of the EHCL programme.

It was followed by a networking and skills training meeting that served as preparation for a broader event[30] organised the following day as part of the NRP 74 programme in cooperation with the Wennberg International Collaborative. 28 EHCL fellows participated in the meeting and then also joined the broader NRP 74 event, where they also assisted with moderation.

In June 2018 the first Spark Session was held in Bern. This included a networking and informal elements (networking lunch with all participating EHCL fellows and closing dinner with fellows and expert lecturers), a series of moderated interactions with Swiss health care experts (including Prof. Luca Crivelli) to improve fellows' knowledge from two main perspectives: 1) that of patients (e.g., data collection, patient rights, health literacy, target groups of projects); and 2) the systemic (e.g., political context, desired outcomes, possible impact on society). A total of 25 fellows participated.

After a summer break, the next activity involving EHCL scholars was the internal conference organised by the NRP 74 at the end of August, where the 27 participating scholars were invited to actively participate in the knowledge transfer part of the conference[35].

In September, a writing skills workshop took place, in which 8 scholars participated. Over two days Dr. Jurgen Barth[2] trained fellows on the following topics: important steps in preparing a manuscript; how to increase the chances of publication; macro-editing and storytelling; tips and exercises for revising specific parts of a manuscript; cover letters, reviewer comments, post-acceptance publicity.

In addition, in September the Expert Visitor Grant programme was launched, consisting in a call for EHCL fellows to organise events of interest for the whole community featuring at least one international speaker/lecturer.

The first retreat was held in October 2018 and focused on project management; the keynote was held by Dörte Bräunche. The retreat also included community building and informal activities, as well as a lesson on career development by Prof. Milo Puhan, president of the NRP 74 steering committee. A total of 20 scholars participated.

In December 2018 the second Spark Session took place, where 20 EHCL fellows attended presentations by Prof. Felix Gutzwiller – former member of National Council and professor at the University of Zürich – and by Ivan Rickenbacher – politician and communications consultant – on how to influence health care policy.

In addition, between May and December 2018, Dr. Rolf Heusser organised site visits with members of the EHCL community, where they met at their workplaces and received individual coaching sessions on career planning and career portfolios.

Activities in 2019

In 2019, its second year, new scholars joined the EHCL programme, namely early career scientists from the additional projects funded under the NRP 74 in a second call for proposals[36]. It is noteworthy that this year saw a large increase in the number of activities co-organized by EHCL grantees, indicating an increased bottom-up approach to the shaping of community activities. This was also due to the launch of the EHCL advisory body, a small group of EHCL fellows assisting the programme coordinators in designing activities according to the needs and preferences of the community members.

The year 2019 started with a first event held in Geneva and Basel as part of the Expert Visitor Grant Programme launched the previous year. Organised by one of the EHCL community scientists, it was titled “Vaccine Hesitancy: Why it Matters in the Era of Fake News and Alternative Facts”, and the international guest lecturer was Eve Dubé, a medical anthropologist from the Quebec National Institute of Public Health. This event was open to both EHCL scholars and external researchers.

[2] http://www.juergen-barth.de/

In February 2019 a skills training workshop was held that focussed on the topic of early career funding. The course was organised in Bern and the speaker was Dr. Kelly Turner.[3] The event included both an information session presenting the funding opportunities available in Switzerland and abroad, and practical exercises on how to prepare documents to raise funds for your own projects. For practical reason, participation was limited to 12 people.

In March, the third Spark session was organised in conjunction with the second visit of an international lecturer under the Expert Visitor Grant program. The session focused on developing knowledge of health systems as a whole and how to develop practically actionable research within them. Speakers included Prof. Thomas Gächter, professor at the University of Zürich and member of the NRP 74 steering committee, Dr. Erik Jylling, Executive Vice President for health policy at the Danish regions, and Prof. Werner Brouwer, Erasmus University Rotterdam. 20 EHCL scholars participated. The event also provided an opportunity for informal exchanges with the guests.

[3] http://www.kellyturner.ch/

Table 3: Emerging Health Care Leaders Programme, Event calendar 2019

Date	*Location*	*Activity*	*Organizer*	*Duration (days)*
Jan 15/16, 2019	Geneva and Basel	Expert Visitor Grant Programme: "Vaccine Hesitancy"	Michael Deml	0.25
Feb 28, 2019	Berne	Early Career Funding Workshop,	Kelly Turner	1.0
March 18, 2019	Basel	Spark Session/Expert Visitor Grant "From Research Funding to Health Care Systems Reforms"	Andrea Martini and Lester Geneviève	1.0
May 16, 2019	Bern	Expert Visitor Grant Programme: "Frailty: From Concept to Practice"	Rahel Meier, Yael Rachamin, Damien Cateau, Katharina Jungo	0.5
June 19, 2019	Zurich	Workshop: "How to Deal with Media/Role of Social Media in Health Communication"	Urs Kern (SRG) Emily Stone	1.0
Aug 30, 2019	Lucerne	Expert visitor Grant Programme, "Trusted Evidence. Informed Decisions. Better Health. Cochrane Strategy to 2020"	Roxanne Maritz Jsabel Hodel	0.75
Sept 5/6, 2019	Montreux	Retreat EHCL Programme incl. Leadership Workshop	Rolf Heusser Fieke Franken	1.5
Nov 28, 2019	Berne	Spark session, Parliament visit	Felix Gutzwiller Rolf Heusser	1.0

The next event was entirely dedicated to an international lecturer invited by EHCL fellows thanks to the Expert Visitor Grant programme. The event was entitled "Frailty: From Concept(s) to Practice". It revolved around the different definitions of frailty, how to measure it, and how to conduct research with frail patients and was led by Prof. Jacobijn Gussekloo and Dr. Rosalinde K.E. Poortvliet. A coaching session on women in academia and a networking lunch were added to the programme. 17 scholars attended.

In June there was a media training organised as part of the skills training. Two lecturers from different media (Kern and Nadine Hostettler) participated, and Gerald Tippelman, a journalist from SRF, gave an insight into his professional life. The event also gave EHCL the opportunity to strengthen the sense of community with an evening social program. A total of 20 participated.

Another event was held after the summer break, thanks to the Expert Visitor Grant programme. The topic was "Trusted evidence – Informed decisions – Better health – Cochrane Strategy to 2020" and the lecturers included the CEO of Cochrane (Mark Wilson) and the Director of Cochrane Switzerland (Erik von Elm). 10 EHCL fellows participated.

In September, the second retreat was organised in Montreux. The main topics were social skills in the work context (speaker was Prof. Birgit Watzke, professor at the University of Zürich and PI of an NRP

74 project) and leadership (speaker was Brida von Castelberg, president of the patient safety organization SPO, former chief of gynaecology and obstetrics, Triemlispital Zürich). In addition, there were community-building activities such as a short boat trip between Montreux and Vevey. A total of 24 fellows participated.

The 2019 activities concluded with the fourth Spark session, which constituted in a visit to the Swiss Federal Parliament and included assisting a parliamentary debate as well the opportunity to meet a member of parliament and discuss health care policy making and the role of research in this context. The event also included a networking lunch and an exchange with the NRP 74 steering committee president and the head of the NRP 74 knowledge transfer. 18 fellows participated.

Activities in 2020

The third year of the EHCL programme was arguably the most difficult, as the outbreak of the COVID-19 epidemic disrupted the original program of activities planned for this period. It became difficult to organize EHCL events in-person – which was especially regrettable for the trust- and community-building. The annual retreat had to be cancelled for public health reasons. Nevertheless, this year also demonstrated the progress the community had made, as a number of new online-events were set up by its members, in order to keep the programme going.

Table 4: Emerging Health Care Leaders Programme, Event calendar 2020

Date	*Location*	*Activity*	*Organizer*	*Duration (days)*
Jan 31–Feb 5, 2020	Arlesheim, ZH, BS, BE	Expert Visitor Grant Programme "Vaccine safety, vaccine education"	Michael Deml	0.5
May 28, 2020	online	Social Media Training part 1	Marcel Juen, Annette Fetscherin	0.75
June 10th, 2020	online	"Let's talk behind the screens" event: Digital chase at the virus	Andrea Martani, Agnė Ulytė,	0.3
Sept 7, 2020	online	Expert Visitor Grant Programme Participatory Health Research	Heidi Kaspar	1.0
Sept 11, 2020	online	"Let's talk behind the screens" event: Vaccine hesitancy in anticipation of COVID-19	Michael Deml	0.3
Sept 21, 2020	online	Leadership- introduction	Katharina Janus	0.5
Sept 22, 2020	online	Successful negotiations	Carl Emerson	0.5
May 28	online	Social Media Training part 2	Marcel Juen, Annette Fetscherin	0.75
Oct 21, 2020	online	Programme conference, NFP 74	NFP 74	1.0
Nov 13, 2020	online	Workshop: How to bring evidence to decision making processes	Benoit Gaillard Rolf Heusser	0.5

At the very beginning of 2020, another event was organised under the Expert Visitor Grant Programme was organised (in person, before the public health restrictions were imposed). The title was "Grundlagen für eine fundierte Impfberatung" and it featured two international and one national speakers (Barbara A. Pahud MD, Dr. med. Steffen Rabe and Prof. Philip Tarr).

On May 28, an online skills training on the use of social media in science was held with speaker Annette Fetscherin, trainer at Marcel GmbH[4] and journalist at SRF sport. The objective of the seminar was to teach the basics of social media and to use them in practice in a targeted and addressee-oriented way. Participation was limited to 5 EHCL fellows to facilitate the training.

In June the new event series "EHCL – Behind the screens" started with a workshop entitled "Digital Chase After the Virus" (speaker Dr. Marcello Ienca, ETH Zürich). The topic was to discuss pressing

[4] https://socialmedia.marceljuen.ch/en/social-2/

ethical issues raised by the use of digital tools in public health surveillance, with a particular focus on contact-tracing apps being developed to help with the COVID-19 situation.

In September, the second event of the "EHCL – Behind the screens" series was held online, this time with Dr. Jeremy Ward (CNRS – Centre national de la recherche scientifique). The topic was "Understanding vaccine hesitancy in anticipation of COVID-19 vaccine: perspectives from France" and the format was an open debate with the expert on some the factors explaining hesitancy toward a future COVID-19 vaccine, using survey data collected in France in the first months of the epidemic by him and his research team.

Three events were held in September 2020. The first was a hybrid event held in Zurich as part of the Expert Visitor Grant program and was titled "Participatory Health Research." The guest trainer was Prof. Jarg Bergold, and the theme was how to design and conduct participatory health research, including both inputs from the expert and training in working groups. 10 EHCL fellows participated. The second and third events in Septembers were part of the skills training programme and consisted of two online workshops on leadership and negotiation in the health care domains, led by Carl Emerson[5] and Katharina Janus[6], and attended by 12 and 13 scholars, respectively.

In October and November, 33 and 10 scholars, respectively, participated in EHCL activities as part of the NRP 74 programme conferences and in a skills training how to move from evidence to policy change in health care.

Activities in 2021

2021 was the final year of EHCL activities. It included new activities to help reflect the overall experience of the EHCL programme and to think about its future development after the end of the NRP 74 programme in which it is embedded (i.e. 2022).

Table 5: Emerging Health Care Leaders Programme, Event calendar 2021

Date	*Location*	*Activity*	*Organizer*	*Duration (days)*
April 9, 2021	online	Project Management in action – expert tips & tricks how to organize, manage, and lead	Katharina Janus Emily Stone	0.5
May 26, 2021	online	Expert Visitor Grant Programme "Translating research into policy change"	Roxanne Maritz, Jsabel Hodel	0.5
June 11, 2021	online	Video conferencing and rhetoric	Annette Fetscherin	1.0
June 22, 2021	online	Conference NRP 74 with oncologists "HSR in Switzerland- the way forward"	Rolf Heusser Various HCLs	0.6
October 8, 2021	online	"Science, Campaigning, Politics", Workshop	Benoit Gaillard Fieke Franken	1.0

[5] https://insideoutsolutions.ch/about/
[6] https://katharinajanus.com/

Date	*Location*	*Activity*	*Organizer*	*Duration (days)*
Oct 15/16, 2021	Mag-glingen	Retreat EHCL Programme Innovation in leadership management (De-sign thinking)	Lize Duminy Rolf Heusser	1.0
Nov 4, 2021	online	Webinar “Conflict management”	Carl Emerson Emily Stone	0.5
Nov 4, 2021	online	”How to lead and build a successful work environment", Webinar	Carl Emerson Emily Stone	0.5
Nov 15, 2021	online	Programme Conference NRP 74	NRP 74	1.0

The first activity was an online skills training workshop on project management in the health care context. The workshop took place in April 2021 and was led by Prof. Katharina Janus. Training during the activity was based on real-life examples provided by the instructor, who taught how to design and challenge individual approaches to managing projects during the evolving career of researchers. A total of 15 scholars participated.

In May, another online event was held as part of the “Let’s talk behind the screens” series, in which a national (Dr. Julia Spoendlin) and an international (Prof. Anton Pottegard) expert talked about how to conduct epidemiological research that informs health care policy. The online webinar was titled “Pharmacoepidemiological research in Denmark and Switzerland during a pandemic”.

Another online soft skills training was held in June. The webinar was led by Annette Fetscherin and the Marcel Juen Kommunikation GmbH. The topic was training video conferencing skills and rhetorical skills in online communication.

Also in June, EHCL fellows participated in the moderation and the organisation of the conference “HSR in Switzerland: What is the way forward?”, which was held online and in collaboration with the broader NRP 74 network. 13 scholars attended this event.

In October, the last retreat was held after a one-year break in Magglingen. The topic was the application of design thinking in the context of health research, and the speakers included (Prof. Dean Harder and Dr. Nadine Martin). As usual, social activities were also organized to promote community building. EHCL fellows were invited to work in small groups to develop new ideas for innovative research projects that would later be evaluated by the NRP-74 Steering Group and possibly receive seed funding for implementation. A total of 14 EHCL fellows participated.

Three additional ECHL training workshops and one NRP 74 conference were held between October and November, with EHCLs serving as facilitators

Annex II

Questionnaire

Question	Comment on responses
Emerging Health Care Leaders (EHCL) feedback questionnaire In order to reflect on the effects, value, and opportunities for growth for EHCL program, we would appreciate your feedback. The responses will be used in the NRP74 synthesis report on the EHCL program in an anonymized form.	
During your work at an NRP74 project, you were (primarily):	{choose one} PhD Postdoc PhD and then Postdoc Other [free text]
How many EHCL events (retreats, spark sessions, trainings, talks, coaching, etc.) have you attended?	{choose one} 0-2 3-5 6-10 10 or more
EHCL collaborations Please provide a **brief** description of collaborations you had with other EHCLs (e.g., outline the activity, contributions of other EHCLs, added value to your professional development, title or link to the article, etc.)	
Have you **collaborated on producing scientific output** (e.g., articles, posters, initiated a research project, special issue in a journal) together with EHCLs? Please describe.	Free text field
Have you **organized scientific activities** (e.g., conferences, talks, courses, other events) together with EHCLs or thanks to EHCL program? Please describe.	…
Have you **organized knowledge transfer activities** (e.g., media contributions, events for lay persons) with EHCLs? Please describe.	…
Did you have any **informal or other collaborations with EHCLs** (e.g., networking opportunities, consultations on methodological issues, research career advice, etc.)? Please describe.	…

EHCL and professional development We would also like to learn if and how the EHCL program and network have contributed to your career development.	
Do you **mention being a member of EHCL** (or broader NRP74 network) in your CV, during work interviews, or acknowledge being part of EHCL (or broader NRP74) network in another way (e.g., social media, at work, conferences, etc.)?	Free text field
Has EHCL network and program **impacted your career choices and progress** in any way? E.g., an open position (or a candidate for an open position linked to your work) that you found via EHCL or NRP74 network.	…
Did EHCL program help to **expand your professional network?** In which ways – and what impact this network had on you?	
What **skills or knowledge** you acquired or improved as part of the EHCL program or via EHCL network? How do you use them in your professional life?	
EHCL network and program might have given you opportunities to connect with peers, meet friends, and find support during your PhD or postdoc. We would appreciate to hear the **impact that EHCL might have had on you besides or beyond professional life.**	Free text field
EHCL program overall evaluation We would be grateful to hear your overall impression and feedback on the EHCL program.	Free text field
Reflecting on the events, resources and network that was offered by EHCL program: What were the **major strengths** of EHCL program?	…
What were the **major weaknesses** of EHCL program?	…
What **critical insights and suggestions** you would like to share for potential future EHCL program(s)?	…
How strongly would you **recommend** to introduce specific promotion programs for young researchers (comparable to EHCL program) in subsequent National Research Programs (NRPs)? 0 – strongly not recommend at all; 5 – neither recommend nor not-recommend; 10 – strongly recommend	Likert scale: 0 - 10
Anything else you would like to share as feedback about EHCL program?	

Career and professional plans We would like to find out what are the future career-related plans of EHCLs. The information will be kept confidentially.	
Please describe your **short-term (a few next years) career plans** after your PhD or postdoc as an EHCL. Perhaps you have already started or plan a new position or work soon.	Free text field
Please describe your **longer-term career goals** (e.g., do you intend to continue research and/or healthcare related work).	…
In case you would be interested in **staying connected with EHCLs community, as an alumnus**, please provide your (permanent or private) **email address**. We will keep you informed about details and plans via this email.	[email field]

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Abbreviations and acronyms

EHCL – Emerging Health Care Leaders

EHCL+ – Emerging Health Care Leaders Community

ELAM – Executive Leadership in Academic Medicine

HSR – Health Services Research

NRP – National Research Programme

PI – Principal Investigator

SNSF – Swiss National Science Foundation

SSPH+ – Swiss School of Public Health