

Nordic summary of the Interoperability guide- lines for EU Digital COVID Certificate



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Abstract

The Nordic Council of Ministers' eHealth group assigned the Nordic eHealth standardizations group with the task of developing a common Nordic description and/or approach to the basic interoperability elements of the eHealth Network (eHN) "guidelines on verifiable vaccination certificates - basic interoperability elements"¹.

The Nordic eHealth Standardization group worked as a group on this task in 2021. As most meetings were arranged as video-meetings at this time, so was the situation with this group as well. It was not arranged any physical meetings thorough this time-period because of national and global restrictions and recommendations.

The main areas covered was previous European co- operation, development of the European solution of Covid-19 certificate, terminology and codes from the EU Covid-19 certificate, common Nordic Covid-19 certificate guidelines and Nordic collaboration in EU Standardization work.

The key findings were that the Nordic countries participated in the development of the European solution for the Covid-19 certificate. The solution was successful, and no separate Nordic guideline was needed. Nordic collaboration and coordination in EU's standardization work is valuable both to jointly influence the decision making and to maximize the benefit for Nordic countries.

1. https://ec.europa.eu/health/sites/default/files/ehealth/docs/vaccination-proof_interoperability-guidelines_en.pdf



1. Introduction

The Nordic Council of Ministers (NCM) established **the Nordic Council of Ministers' eHealth group** in 2011 for ensuring knowledge transfer between the Nordic countries and help strengthen the global leadership position of the region in the eHealth area. The aim was to support Nordic cooperation on identifying common standards in eHealth – with a special emphasis on electronic health records (EHRs). The Nordic Council of Ministers' eHealth group established later a subgroup on standardization, **The Nordic e- health Standardization group**. The subgroup is gathering Nordic standardization experts from the Nordic countries in regular meetings and serves as a platform to enhance understanding and collaboration on specific standardization issues. The group is an important arena for preparing participation and position in the ongoing international work on standardization at the EU and global level.

The Nordic Council of Ministers' eHealth group have assigned the Nordic eHealth standardizations group with the task of developing a common Nordic description and/or approach to the basic interoperability elements of the eHealth Network (eHN) guidelines verifiable vaccination certificates - basic interoperability elements². The guidelines aim to support interoperability between vaccination certificates. They are meant to drive the design of interoperable solutions.

The Nordic e- health Standardization group made a questionnaire, among the Nordic countries, about the cooperation and the use of the Interoperability guidelines for EU Digital COVID Certificate.

2. https://ec.europa.eu/health/sites/default/files/ehealth/docs/vaccination-proof_interoperability-guidelines_en.pdf



2. Method

The purpose of the questionnaire was to know more about the interoperability work for the covid- 19 certificate the Nordic countries. Each Nordic countries answered the questions below and returned their answers. They prepared a short presentation as well to the Nordic eHealth standardization group meeting October 2021 where the members of the group discussed the common approach.





3. Questions

The questionnaire had the following questions:

1. Has previous European cooperation with ePrescription and/or Patient Summary been helpful with the development and introduction of the European COVID-19 certificate regarding
 - a. standards
 - b. infrastructure
 - c. contacts / collaboration experience in Europe

If yes, describe it more complementary:

2. How has the European solution of the COVID-19 certificate and the "eHealth Network Guidelines on verifiable vaccination certificates - basic interoperability elements" been used in the development of the national interoperability for the COVID-19 certificate- solution? Describe the use and the benefits.
3. Have terminology and codes from the EU COVID-19 certificate been used nationally? If yes, which ones?
4. Have you found any areas where the Nordic countries could collaborate more closely to influence the EU standardization work? Please list Your suggestions.
5. Should the Nordic countries have common guidelines for the COVID-19 certificates which is more detailed but based on the EU guidelines?



4. Summary

4.1 Previous European cooperation

In this context, the previous European cooperation is defined as using the following infrastructure and guidelines as

- eHDSI= The eHealth Digital Service Infrastructure, that is an infrastructure ensuring the continuity of care for European citizens while they are travelling abroad in the EU
- ePrescription= eHealth Network guidelines on ePrescription, that allows EU citizens to obtain their medication in a pharmacy located in another EU country of their electronic prescription from their country of residence where they are affiliated, to their country of travel
- Patient Summary = eHealth Network guidelines on Patient Summary that provide information on important health related aspects such as allergies, current medication, previous illness, surgeries, etc.

According to the Nordic countries, previous European collaboration for cross border exchange has been helpful with in the development of European "Digital COVID Certificate" (DCC). It has been an instrumental in discussing the contents, value sets and interoperability of COVID-19 certificates, even though the readily made international infrastructure has not been used in the information exchange.

Regarding **the standards** the international / European Patient Summary specifications for immunization were used only as one basis for interoperable content in COVID certificates, but the information contents were also minimized and modified to reflect the privacy and data minimization concerns. The technical format is based on visual codes and does not follow the healthcare interoperability standards. The actual ePrescription (eP) and / or Patient summary (PS) has not been much reused since the information in the EU DCC is not identical to the previous PS/current eP guidelines. However, the PS/ eP guidelines have, or will, be updated to harmonize with the EU DCC whenever possible.

Regarding **the infrastructure** the European COVID-19 certificate architecture, and infrastructure for security certificates is not based on eHDSI, but previous infrastructure for COVID-19 tracing apps interoperability. The architecture is not based on eHDSI information sharing, but on the information carried by individuals and the certificate-sharing.

Regarding **the contacts and collaboration**, the workgroups, under the eHealth network, have been proven to be useful to produce a specification for implementation in a short time. The eHealth network groups have also been instrumental in discussing the contents, value sets, and the interoperability of COVID-19 certificates, even though the readily-made international infrastructure has not been used in the information exchange. The key seems to be to assemble experts from European countries, have regular meetings, and work using agile methods. This is important because the goal is often a moving target.

4.2 European solution of the COVID-19 certificates

Some of the Nordic countries participated in the development of the European technical solution of the COVID-19 certificate.

The guideline "eHealth Network Guidelines on verifiable vaccination certificates - basic interoperability elements" has been followed closely when developing and implementing solutions on a national level in all Nordic countries. In Norway the national solution is no longer used, but only the DCC.

Concerning COVID-19, both Norway and Iceland, which are not directly involved in the EU, have been among first countries who have joined EU Digital COVID Certificate system. This demonstrates that also Nordic countries which are not directly involved in EU, can participate in collaboration and achieve concrete results together with Nordic countries which are directly involved through EU membership and increases possibilities for Nordic collaboration within European initiatives.

4.3 Terminology and codes from the EU COVID-19 certificate

The terminology and the codes from the EU COVID-19 certificate have been used in all the Nordic countries, except in Norway where the implemented codes are from NLK (Norwegian laboratory coding system).

There is already some good collaboration work concerning terminology and coding standards, such as contacts between SNOMED CT national release centers and collaboration through NordClass (WHO FIC). There is increased activity in the Nordic FHIR community. In addition, EU support for semantic interoperability, including support for SNOMED CT is a good direction.

4.4 Common Nordic COVID-19 certificate guidelines

The European COVID-19 specification has been a major achievement and it is gaining momentum and support. The cooperation of the Nordic countries is highly relevant regarding functionality and applicability of the certificates, as one of the key elements in COVID-19 pandemic controls.

4.5 Nordic Collaboration in EU standardization work

The Nordic countries could collaborate more closely to influence the EU standardization work in general. For example, by reviewing the upcoming EU and the international standardization projects together before and after international meetings to coordinate inputs and efforts into the ongoing work. Sectoral cooperation would be beneficial, both to jointly influence the decision making and to maximize the benefit for our Nordic cooperation. For vaccination certificates, alignment of applications (for smartphones, in particular) regarding functionality and applicability (for both border control and domestic restrictions in each country) would have been useful.

Common Nordic guidelines would be relevant concerning information sharing topics such as patient summaries, ePrescriptions and new use cases for eHDSI. It could be possible to use the patient summary information for vaccination certificates in general, not only COVID-19. If plans for such guidelines are realized through WHO or European level collaboration, the Nordics should not have an incompatible approach.

Common policies and practices for issuing certificates for other Nordic citizens in the country of vaccination would be needed. For example, provision of certificates according to EU specifications for citizens, who were vaccinated in other Nordic country, has been difficult.

There are other areas where Nordic collaboration could be beneficial: TEHDAS, X-eHealth, ISO/CEN, HL7 (FHIR), OpenEHR, IPS, Nordic Commons, Nordic Interoperability project and Health data app certification- work.

About this publication

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