RIGSREVISIONEN

Extract from the report to the Public Accounts Committee on the problems connected with the development and implementation of the digitally based Shared Medication Record

September 2014

revision

revision

1. Introduction and conclusion

1.1. Purpose and conclusion

1. This report concerns the development and implementation of the digitally based *Shared Medication Record* (SMR). Often medication errors occur due to inadequate knowledge of patients' medication, particularly during the transition between the various sectors of the Danish healthcare system. With the SMR, data on the citizens' medication can be shared across hospitals, general practitioners (GPs), etc. and relevant health staff and the patients have direct digital access to updated medical data round the clock. If used correctly and to its full potential, the SMR can become an important instrument in ensuring better medical treatment and improved patient safety.

Technical implementation *means access to the SMR through a local system like, for instance, an EPR-system and* ***organisational implementation*** *means that the SMR is used as intended in connection with medical treatment of patients.*

The development and implementation of the SMR is delayed. Originally, the SMR should have been implemented across the Danish healthcare system by the end of 2011. A new deadline was set for the end of 2013, at which point all hospitals and GPs should be using the SMR fully. This deadline was, however, not met either. Mid-2014, neither hospitals nor GPs use the SMR fully. The latest deadline set for the municipalities is meant to ensure full technical implementation in the course of 2014 and full use mid-2015. No agreements have been made in respect to linking other sectors to the SMR through integrations into local systems.

The Danish National eHealth Authority (NHA) *is a government institution under the Ministry of Health. It has the responsibility for the SMR programme.*

2. The purpose of the examination is to assess whether the department of the Danish Ministry of Health, the Danish National eHealth Authority (NHA) and the five regions that are responsible for the hospitals have made an adequate effort to develop and implement the SMR. The report answers the following questions:

- Has the Ministry of Health and the NHA provided a sufficient framework for carrying through the SMR programme?
- Has the Ministry of Health and the NHA directed the SMR programme towards delivering within the agreed costs, time and quality parameters, and has the effort made by the ministry and the NHA in this respect been adequately underpinned by the regions?
- Have the regions ensured implementation of the SMR by the end of 2013, and has the NHA ensured an adequate level of IT security?
- Has the Ministry of Health informed the Finance Committee of the Danish Folketing (parliament) correctly on the development and implementation of the SMR system?

According to the Danish cross-governmental programme model, a ***programme*** *is a temporary organisation structure created to coordinate and manage a set of related projects and activities designed to create change. Programmes are largely managed like projects.*

MAIN CONCLUSION

Rigsrevisionen finds that the effort made by the Ministry of Health, the NSH and the regions to develop and implement the SMR has been inadequate in crucial respects. As a consequence hereof, the SMR programme has been considerably delayed and important issues remain unsolved. Measurements performed mid-2014 at hospitals and GPs indicate high use of the SMR, but Rigsrevisionen's analysis has shown that the measurements do not cover full use and that all planned sectors have not yet been linked to the SMR. Moreover, the cost of implementing the SMR is unknown.

Rigsrevisionen is of the opinion that considerable efforts will be required from the ministry, the NSH and the regions to achieve the objective of the SMR; the Ministry of Health and the NSH should therefore clarify how the SMR programme can achieve the target set in the original business case, which calls for linking all parts of the healthcare sector to the SMR and full usage thereof. To achieve this target, all dependencies of the programme must be clarified and information on the resources and activities required to achieve the objective must be procured. The Ministry of Health and the NSH should clarify this in collaboration with the other parties in the programme.

Several independent public and private parties are involved in the SMR programme, which increases the need for effective programme management. When the framework of the project was defined, however, neither the Ministry of Health nor the NSH adhered to the principles for good practice concerning anchoring of the programme in the top management. Moreover, the benefits and costs related to the programme have not been clarified and it has not been sufficiently clear what the parties were required to deliver and when. To this should be added significant weaknesses in the programme management performed by the Ministry of Health and the NSH, including inadequate follow up on programme risks, on the development in total costs, on the realization of benefits and on delays. Overall, the lack of managerial power, incentives and knowledge of the status of the programme has impeded progress.

Rigsrevisionen is of the opinion that the information on the progress of the municipalities' roll-out of the SMR, which the Ministry of Health provided to the Finance Committee under the Danish Folketing in legal document 92/23/3 2011, was incorrect. The Ministry of Health stated in the document that the municipalities expected to meet the 2011 deadline, despite the fact that the ministry – through its involvement in the management of the programme – was aware that the municipalities had announced that they expected to complete the implementation of the SMR late in 2012 or early in 2013. Rigsrevisionen also finds that the ministry should have reported more adequately on the outcome of the pilot in the legal document, including mentioning both the problems with the SMR integration that had been identified during the pilot and the fact that it had not been possible to test integration to the extent planned.

It is Rigsrevisionen's assessment that the NSH had neither mapped the work processes that the SMR was designed to underpin, nor tested the usability or the quality of the data sufficiently, before it was attempted to put local SMR integration into full operation at hospitals and GPs in 2011 and 2012. Prior to this, the steering committee had decided to maintain development and implementation of the system nationwide without carrying out further pilots, despite the fact that the pilot that had been carried out had failed to demonstrate that the SMR would work for daily operation for all relevant groups of health professionals.

As regards information security, Rigsrevisionen finds that – by the end of 2013 – the NSH had not adequately secured the central SMR system. Thus, the NSH had not established sufficient supervision of the regions' administration of access to sensitive personal data on the citizens' medication in the SMR. Moreover, the NSH is unable to document that the SMR can be scaled to handle the increase in usage that must be expected as the system is gradually being rolled out. The NSH has informed Rigsrevisionen that these weaknesses will be addressed.

__Information security__ is the protection of the confidentiality, integrity and accessibility of a company's systems and data. As regards the SMR, information security measures serve to protect the citizens' privacy and to ensure that the SMR functions correctly round the clock.

The regions have failed to establish essential preconditions for successful implementation of the SMR. For instance, the regions have failed to ensure that the medication records are "cleaned up" so that they can provide the healthcare professionals with correct information about the patients' medication. Nor have the regions taken appropriate steps to ensure that the users know how to use the SMR; the training of the users is inadequate and the user-friendliness of the local SMR integration has been tested by only one region.

The Ministry of Health has informed Rigsrevisionen that it recognised the need to change the way the SMR programme was managed, in the spring 2012. Rigsrevisionen's examination shows that changes have been implemented in the subsequent period. At the request of the board, the NSH has – since April 2013 – reported on their overall assessment of risks and the Ministry of Health has strengthened its engagement on management level in the steering committee of the programme. Rigsrevisionen welcomes these changes.

At the same time, however, Rigsrevisionen is of the opinion that the basic framework set for the SMR programme has remained unchanged; the programme is still inadequately anchored in the top management of the participating parties and the benefits and costs of the SMR to the parties remain unclear.

On the basis of the above findings, Rigsrevisionen has the following recommendations to future cross-cutting programmes in the healthcare sector:

- Based on the Danish cross-governmental programme model's recommendations concerning governance, the governance of a programme should include those parties that are paying for/contributing to and benefitting from the programme.
- The benefits and costs derived from participating in the programme should be clarified in order to establish incentives for achieving the common targets. The parties' responsibility for delivering individual elements of the programme should be defined and converted into measurable milestones with realistic time frames. The parties should commit to delivering on time and procedures should be in place to follow up on deliveries.
- Long-term programmes should – in compliance with the recommendations of the Danish cross-governmental programme model – be reviewed regularly, for instance every six months, to provide clarity of progress, use of programme funds, etc.
- Before digital solutions are rolled out for general usage, their usability should be confirmed through small-scale testing.
- Efforts should be made to ensure that the users know how to use important digital solutions correctly and with ease; for instance, the users could be required to pass a test, and the user-friendliness of the solutions could be tested before implementation.

According to the Danish cross-governmental programme model, the __governance of programmes__ includes three levels of management: programme board, steering committee and programme management.