



NETHERLANDS HEALTH INFORMATION SYSTEM REVIEW

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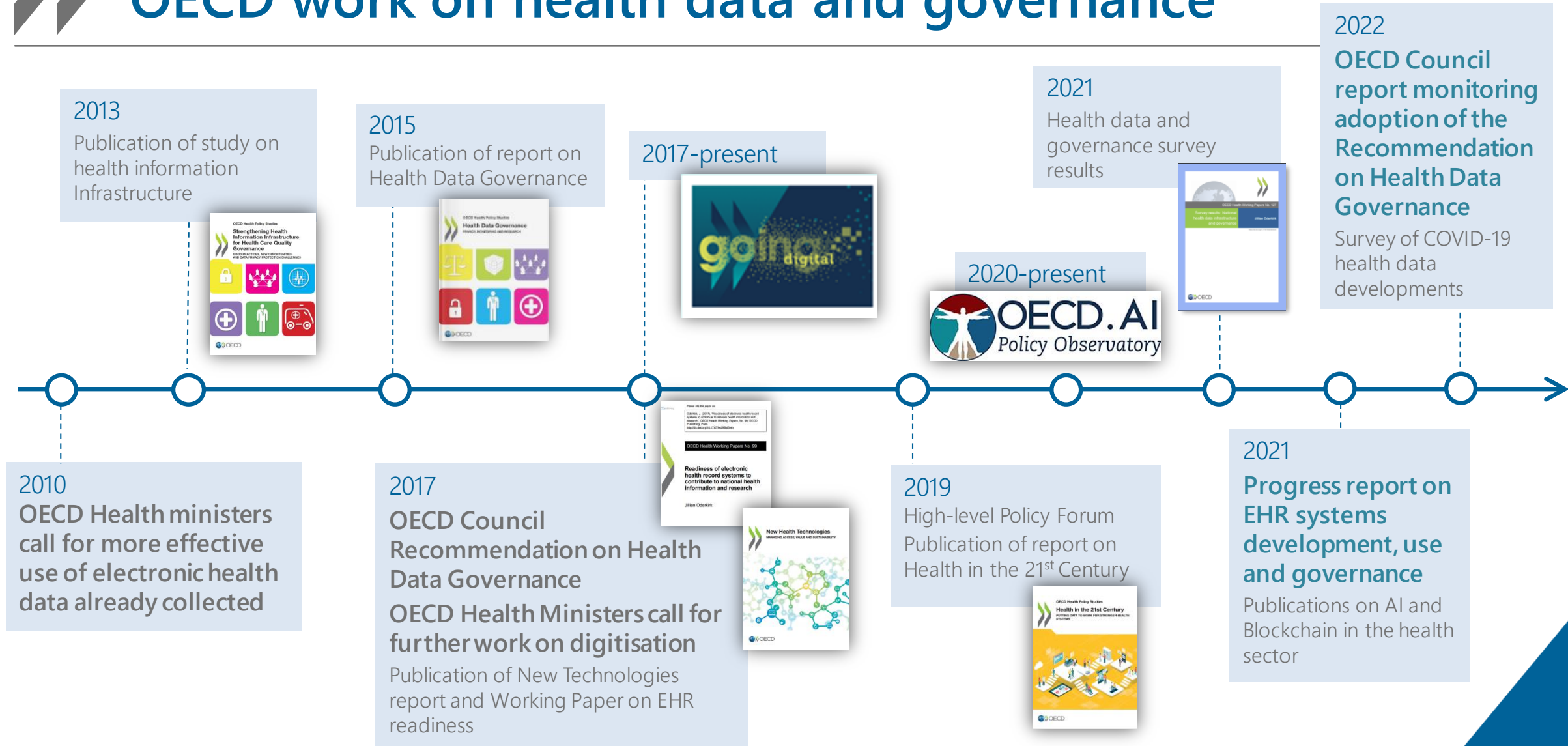


Review of the Health Information System: ND

- Commissioned by the MoHWS in January 2021
- Uncover **barriers and facilitators** to progress toward a 21st Century health information system
- Recommend **legal, policy and operational reforms** to create a national health information system that supports 4 policy goals:
 - integrated healthcare delivery
 - public health monitoring and management
 - capitalising on innovations within the past 12 months and
 - fostering research and innovation in technologies and treatments that improve health
- Interim recommendations: published
- Final report: December 2021 or January 2022



OECD work on health data and governance





Interviews and focus groups 2021

- Policy makers (MoHWS)
- Data custodians (CBS, research institutes, non-profit-organizations)
- Research institutes (Nivel, RIVM)
- Health research infrastructures (Odissei, Health RI, EU EHDEN)
- Legal experts (data privacy)
- Data analytics/IT providers (KPMG)
- Data standards and/or exchange organisations (Medmij, LSP, NICTIZ)
- Health care insurers (ZN, ZiN)
- Municipalities (VNG)
- Associations (Patients, hospitals, community care, professional groups)



An Integrated HIS for the 21st Century

privacy-by-design
data governance
public good
innovation
integration
access
common data model
transparency
interoperability
standards
progress



Four types of data in the Dutch HIS



Public health data:

- Births and Deaths
- Demographics
- Environment
- Genomics
- Vaccinations
- Behavioural factors
- Socio-economic factors



Health Care Data:

- Hospital care
- Primary care
- Emergency care
- Prescribed medicines
- Pathology & imaging
- Patient reported data



Long-term care data:

- Nursing home care
- Home care
- Allied health
- Prescribed medicines
- Pathology & imaging
- Patient reported data



Social Care Data:

- Support to live at home
- Transport services
- Home adaptations
- Equipment



OECD countries' success factors when developing an integrated HIS

Digital strategy with 3 key elements

Mature health information system with **key health data across the continuum of care** that are of high quality and can be linked with one another and with contextual and outcomes data

Standardised, coherent and accessible EHR systems that address fragmentation of data (silos) and allow views of health care trajectories and outcomes (one patient one record)

Comprehensive health data governance with legislation and policies that allow health data to be linked and accessed for uses in the public interest, including cross-border collaborations



MHWS to lead development and implementation of a national strategy to achieve an integrated HIS

- Build trust and support for the strategy among stakeholders and the public
- Draft the IT architecture/infrastructure for an integrated health information system
- Further develop and strengthen the national health data governance legislative framework
- Lead the legislative and policy reforms necessary to realise the strategy
- Develop the draft roadmaps for each strategic objective within the national strategy
- Develop analytics products and dashboards for ministerial policy making and reporting
- Coordinate planning and funding of health information projects within the ministry to align them with the strategy
- Oversee an agency who will implement the strategy



National agency to implement the integrated HIS

1. Standardisation: Agreeing (or developing) and maintaining consistent national standards and keeping standards for:

- Semantics (terminology)
- Electronic messaging (exchange)
- Analytics (common data model, code sharing/analytics pipeline)
- Data accessibility/sharing
- Harmonisation of data privacy and security policies and practices

2. Certification and verification of compliance with national standards

- Certifying vendors of IT solutions for compliance with national standards
- Certifying and verifying health care actors have achieved interoperability standards and are exchanging useable (quality) data (proof of interoperability)



National agency to implement the integrated HIS

3. Build a national platform for data exchange, acting as a hub through which the data flows to:

- Enable secure processing of personal health data including data integration/linkage
- Foster adoption of a common health data model (CDM)
- Manage approval process for data integration/access involving multiple organisations
- Enable secure mechanisms for access to personal health data for approved purposes
- Improve data quality, including conducting data quality auditing
- Reduce overlapping and duplicative administrative and data processing activities

4. Develop support for the implementation of the national strategy through:

- Stakeholder and public consultation about the national strategy and its implementation
- Public transparency about data development, exchange and privacy protections



Informatieberaad Zorg as an advisory body to the national agency

- **Advise** on the development and implementation of the national strategy for an integrated HIS
- Act as **ambassadors** and spokespersons for the national strategy
- Requires a **formal mandate** that should be developed in consideration of the governance of the National Agency and achieving a **win-win** for stakeholders participating in governance
- **Membership should expand** to include:
 - Organisations with responsibility for national health information
 - National health care quality registries
 - National health research infrastructures
 - Organisations providing national health data access, linkage and governance
 - Businesses who contribute to and depend upon the HIS