编号：**YY006-20221226001**

标题：**Kidney Health Initiative ESKD Data Standards Project**

简介：The end-stage kidney disease (ESKD) Data Standards Project was launched by the Kidney Health Initiative (KHI) with the goal of standardizing dialysis-related measurements for research use. KHI is a public-private partnership between the American Society of Nephrology, US Food and Drug Administration, and organizations with an interest in kidney disease. KHI promotes safe and effective patient-centered therapies for people with kidney disease. In 2018, KHI established a workgroup with expertise in nephrology, nursing, quality management, ESKD data, organizational management, and clinical research. The workgroup identified 5 topic areas and 8 specific measures for the development of standards on the basis of the existing ESKD Measurement Specification Manual published by the Centers for Medicare & Medicaid Services. The topic areas were ultrafiltration rate, vascular access, dialysis small solute clearance (3 data standards), hospitalization (2 data standards), and mortality. The research standards were approved by the workgroup, reviewed by external reviewers, and opened to public comment. The data standards attempt to achieve balance between brevity and completeness in the face of knowledge gaps. The ESKD Data Standards are publicly available on the KHI website (https://khi.asn-online.org/projects/project.aspx?ID=78).

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108611

编号：**YY006-20221226002**

标题：**Harmonization after the GDPR? Divergences in the rules for genetic and health data sharing in four member states and ways to overcome them by EU measures: Insights from Germany, Greece, Latvia and Sweden**

简介：The EU member states' healthcare and health-related research sectors are both characterized by an emerging infrastructural coalescence on a national and European level. The culmination of this coalescence is the planned creation of a European Health Data Space, an EU-wide infrastructure for the processing of personal data for healthcare and for secondary uses such as scientific research. In contrast to growing technical interoperability, the legal framework for such integration is not yet defined in detail, particularly with regard to data protection law. Its development is accompanied by discussions about divergent member state implementations of the EU General Data Protection Regulation (GDPR) that affect data sharing between healthcare and scientific research actors and across various sectors driven by divergent processing purposes. The article presents four member states' main rules on data sharing based on the respective provision of the GDPR in six health-related contexts regarding data sharing across the healthcare and research sector and between the main actors of those sectors. The striking differences are then evaluated from the perspective of their factual effect on European data sharing depending on the legal characteristics of the GDPR provisions they rely on. Against this backdrop, the planned regulatory measures for the setup of the European Health Data Space are introduced and evaluated with regard to further harmonization between member states' laws and possibilities to overcome divergences in data protection rules relevant for European data sharing. The results of the analysis point to the conclusion that the destructive effect of divergent member state rules depends on the legal qualification of the EU provisions they rely on and that this qualification also determines which further EU regulatory measure would be the most effective to set the framework for the European Health Data Space.

编号：**YY006-20221226003**

标题：**Regional Inequalities and Influencing Factors of Residents' Health in China: Analysis from the Perspective of Opening-Up**

简介：While opening-up promotes regional economic development, its impact on the residents' health level cannot be ignored. Based on provincial data of China from 2009 to 2020, the Gini Coefficient and Theil Index are used to analyze the regional inequalities in residents' health in China. The Difference-in-Difference model is constructed to study the impact of China's opening-up policies and other factors on residents' health. The results show that, firstly, the health levels of Chinese residents have steadily improved and regional inequalities have been gradually narrowing. Secondly, the Belt and Road Initiative has significantly improved the residents' health along the route, while the Pilot Free Trade Zone, which is another important opening-up policy in China, has had an inhibitory effect on the health of residents. Thirdly, it is proven that the Belt and Road Initiative improves the health of residents in provinces along the route by increasing the degree of opening-up and improving the regional environmental quality. This study will support and advance the UN's Sustainable Development Goals (SDGs), especially SDG3 (Good Health and Well-being) and SDG10 (Reduced Inequalities).

全文链接： https://pan.ckcest.cn/rcservice//doc?doc_id=108616

编号：**YY006-20221226004**

标题：**Breaking away from labels: The promise of self-supervised machine learning in intelligent health**

简介：Medicine is undergoing an unprecedented digital transformation, as massive amounts of health data are being produced, gathered, and curated, ranging from in-hospital (e.g., intensive care unit [ICU]) to person-generated data (wearables). Annotating all these data for training purposes in order to feed to deep learning models for pattern recognition is impractical. Here, we discuss some exciting recent results of self-supervised learning (SSL) applications to high-resolution health signals. These examples leverage unlabeled data to learn meaningful representations that can generalize to situations where the ground truth is inadequate or simply infeasible to collect due to the high burden or associated costs. The most prominent bottleneck of deep learning today is access to labeled, carefully curated datasets, and self-supervision on health signals opens up new possibilities to eliminate data silos through general-purpose models that can transfer to low-resource environments and tasks.

全文链接： https://pan.ckcest.cn/rcservice//doc?doc_id=108614

编号：**YY006-20221226005**

标题：**Opening up safely: public health system requirements for ongoing COVID-19 management based on evaluation of Australia's surveillance system performance**

简介：Background: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) community transmission was eliminated in Australia from 1/11/2020 to 30/6/2021, allowing evaluation of surveillance system performance in detecting novel outbreaks, including against variants of concern (VoCs). This paper aims to define system requirements for coronavirus disease 2019 (COVID-19) surveillance under future transmission and response scenarios, based on surveillance

system performance to date. Methods: This study described and evaluated surveillance systems and epidemiological characteristics of novel outbreaks based on publicly available data, and assessed surveillance system sensitivity and timeliness in outbreak detection. These findings were integrated with analysis of other critical COVID-19 public health measures to establish future COVID-19 management requirements. Results: Twenty-five epidemiologically distinct outbreaks and five distinct clusters were identified in the study period, all linked through genomic sequencing to novel introductions from international travellers. Seventy percent (21/30) were detected through community testing of people with acute respiratory illness, and 30% (9/30) through quarantine screening. On average, 2.07% of the State population was tested in the week preceding detection for those identified through community surveillance. From 17/30 with publicly available data, the average time from seeding to detection was 4.9 days. One outbreak was preceded by unexpected positive wastewater results. Twenty of the 24 outbreaks in 2021 had publicly available sequencing data, all of which identified VoCs. A surveillance strategy for future VoCs similar to that used for detecting SARS-CoV-2 would require a 100-1000-fold increase in genomic sequencing capacity compared to the study period. Other essential requirements are maintaining outbreak response capacity and developing capacity to rapidly engineer, manufacture, and distribute variant vaccines at scale. Conclusions: Australia's surveillance systems performed well in detecting novel introduction of SARS-CoV-2 while community transmission was eliminated; introductions were infrequent and case numbers were low. Detection relied on quarantine screening and community surveillance in symptomatic members of the general population, supported by comprehensive genomic sequencing. Once vaccine coverage is maximised, future COVID-19 control should shift to detection of SARS-CoV-2 VoCs, requiring maintenance of surveillance systems and testing all international arrivals, alongside greatly increased genomic sequencing capacity. Effective government support of localised public health response mechanisms and engagement of all sectors of the community is crucial to current and future COVID-19 management.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108615