

HealthAffairs

Health Crisis KOS: Facing the World Wide Health Crisis with
Vocabulary Control and Standards

*Managing Health Policy KOS during the COVID-19 Pandemic and
Beyond*

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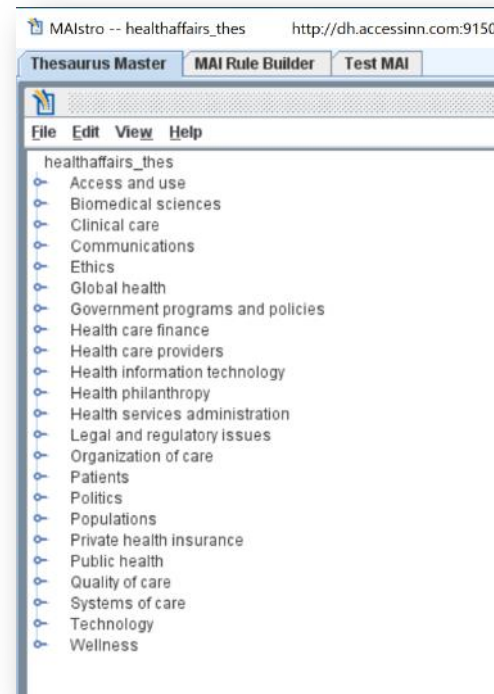
September 9, 2020

Health policy KOS considerations

- Faster research observations and outcomes
- The real-time news cycle
- Uncertainty in government policies
- COVID-19 Pandemic's impact on the visibility of social issues

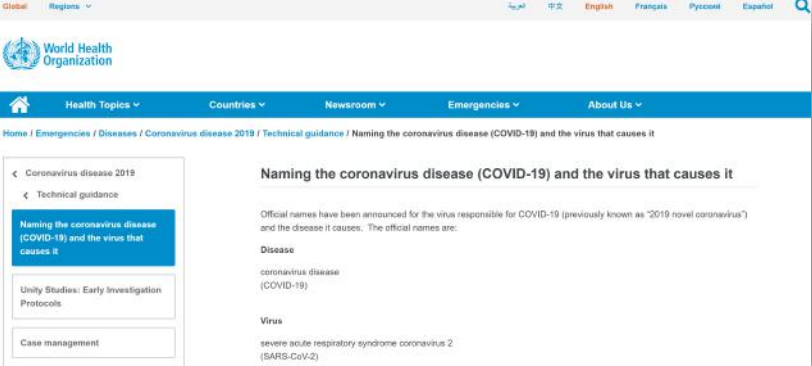
Building and maintaining a relevant vocabulary

- Health policy is a social science
 - Scope of vocabulary covers numerous areas
 - The top level of Health Affairs' health policy thesaurus:



Sources for vocabulary

- Examples of sources for maintaining and developing an accurate vocabulary:
 - World Health Organization
 - International Committee on Taxonomy of Viruses
 - DSM-5
 - Health Care Provider Taxonomy



The screenshot shows the WHO website page titled "Naming the coronavirus disease (COVID-19) and the virus that causes it". The page includes a navigation menu with "Health Topics", "Countries", "Newsroom", "Emergencies", and "About Us". The main content area is titled "Naming the coronavirus disease (COVID-19) and the virus that causes it" and contains the following text:

Official names have been announced for the virus responsible for COVID-19 (previously known as "2019 novel coronavirus") and the disease it causes. The official names are:

Disease
coronavirus disease (COVID-19)

Virus
severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

The screenshot also shows a portion of the International Committee on Taxonomy of Viruses (ICTV) website, which includes a search bar and a navigation menu. The page is titled "Naming the 2019 Coronavirus" and contains the following text:

The virus causing the current outbreak of coronavirus disease has been named "severe acute respiratory syndrome coronavirus 2" (SARS-CoV-2). The [manuscript](#) describing the name also reports the work of the ICTV *Coronaviridae* Study Group that determined the virus belongs to the existing species, *Severe acute respiratory syndrome-related coronavirus*.

The International Committee on Taxonomy of Viruses (ICTV) is concerned with the designation and naming of virus taxa (i.e. species, genus, family, etc.) rather than the designation of virus common names or disease names. For an outbreak of a new viral disease, there are three names to be decided: the disease, the virus and the species. The World Health Organization (WHO) is responsible for the first, expert virologists for the second, the ICTV for the third.

Putting health policy KOS into practice

- 1200 term hierarchical thesaurus on all knowledge management platforms:
 - Manuscript management system
 - Website
 - Marketing and customer databases

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10.1377/hlthaff.2014.1376	Article	Personalized Medicine: Worth Its Cost?
10.1377/hlthaff.2011.1054	Article	'Personalized Medicine' To Identify Genetic Risks For Type 2 Diabetes And Focus Prevention: C
10.1377/hlthaff.2011.0962	Article	What Happens When The Bubble Bursts?
10.1377/hblog20100819.006638	Digital Object Pub	Conference: Comparative Effectiveness And Personalized Medicine
10.1377/hblog20130617.032168	Digital Object Pub	Collaborative Filtering: An Interim Approach To Identifying Clinical Doppelgängers
10.1377/hlthaff.2019.00027	Article	Errata
10.1377/hlthaff.2018.05268	Article	Cystic Fibrosis And Ivacaftor Use: The Authors Reply

Putting health policy KOS into practice (cont'd)

- Always evolving the main vocabulary
- Adding synonyms as needed
 - Analysis of search engine search terms
 - Analysis of user behavior
- Adjust machine reading rules for content scanning accuracy

The image shows a software interface for managing a knowledge organization system (KOS). On the left, a window titled "Non-Preferred Term" contains a list of terms: "Race discrimination", "Race inequality", "Racial discrimination", "Racial inequality", "Racial prejudice", and "Systemic racism". The "Race discrimination" term is highlighted. To the right of this window are three buttons: "+", "-", and "v". On the right side of the image, a hierarchical tree structure is displayed. The root node is "Social determinants of health", which is expanded to show several sub-terms: "Adverse childhood experiences", "Ethnic disparities", "Food", "Housing", "Integrating social services & health", "Racism", "Social exclusion", "Social gradients", "Social support networks", "Socioeconomic determinants of health", and "Unemployment". The "Racism" term is highlighted in blue.

Health policy KOS as part of the COVID- 19 content landscape

- Peer-reviewed studies published in a faster format:
 - Fast Track Ahead of Print
- Mixed content organized in topic oriented manner
 - COVID-19 resource center
<https://www.healthaffairs.org/covid-19-coronavirus-disease>
 - Content featuring NYC H+H
<https://www.healthaffairs.org/nyc>

COVID-19 Resource Center

A collection of COVID-19 (Coronavirus Disease) content from Health Affairs journal articles and additional resources provides timely commentary, expert analysis, and policy proposals.

COVID-19 BLOG ARTICLES Timely posts from leading experts on policy matters related to COVID-19 and Coronavirus Disease.

FAST TRACK COVID-19 JOURNAL ARTICLES Rapidly published peer-reviewed journal articles on COVID-19.

COVID-19 MULTIMEDIA Interviews, commentary, media citations, and more on COVID-19 and Coronavirus Disease.

RELATED JOURNAL ARTICLES Relevant articles from our journal archives on global health, health system preparedness, pandemics, and related topics.

MULTIMEDIA

Podcast: Protecting Access To Abortion During The COVID-19 Pandemic
August 3, 2020 | Mary G. Suckow

Podcast: An Understaffed Hospital Battles COVID-19
August 3, 2020 | David Sotles

ON THE BLOG

Engaging Primary Care In The Community Management Of COVID-19: Global Lessons From A Small Town In Alberta, Canada
August 26, 2020 | Saugata Chakravorty et al.

Count Native Hawaiian And Pacific Islanders In COVID-19 Data—It's An OMB Mandate
August 27, 2020 | Richard Calvin Chang et al.

Understanding The FDA's Controversial Convalescent Plasma Authorization
August 27, 2020 | Rachel Sachs

COVID-19 Underscores The Need For Digital Quality Measurement

RELATED JOURNAL ARTICLES

Global Health: A Pivotal Moment Of Opportunity And Peril
January 2017 | L. Gostin et al.

Americans' Conflicting Views About The Public Health System, And How To Share Up Support
November 2018 | R. Blendon et al.

FAST TRACK JOURNAL ARTICLES

Racial & Ethnic Disparities In Massachusetts
COVID-19
Fast Track

RESEARCH ARTICLE

Community-Level Factors Associated With Racial And Ethnic Disparities In COVID-19 Rates In Massachusetts
August 27, 2020 | J. Figueroa et al.

RESEARCH ARTICLE

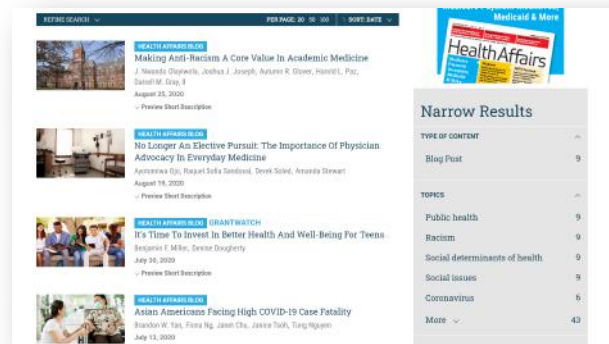
Severe Staffing And Personal

Relevant KOS
reflected in
historical
content as well
as current
content

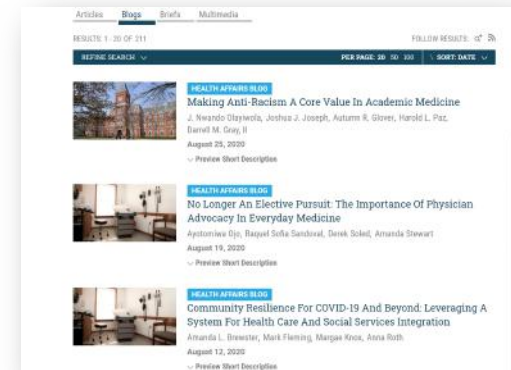
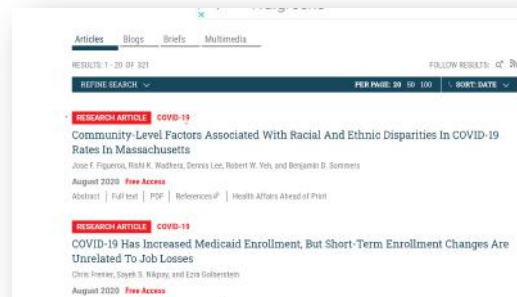
- Appropriate tag metadata drives historical content to relevance:
 - Stern, A.M., Cetron, M.S., Markel, H. "Closing the Schools: Lessons from the 1918-19 U.S. Influenza Pandemic." Health Affairs, 2009, 28(6): 1066-78.
<https://www.healthaffairs.org/doi/10.1377/hlthaff.28.6.w1066>
 - Stern, A.M., Markel, H. "The History Of Vaccines And Immunization: Familiar Patterns, New Challenges." Health Affairs, 2005, 24(3): 611-621.
<https://www.healthaffairs.org/doi/10.1377/hlthaff.24.3.611>

Relevant KOS reflected in historical content as well as current content (cont'd)

- Appropriate tag metadata highlights relevant current content:
 - COVID-19 and Racism



- COVID-19 and Social Determinants of Health



Looking to the future and beyond for Health Policy KOS

- Keeping vocabulary relevant
- Maintaining quality of metadata
- Open discussions about knowledge management within the context of the “real world”

- For questions or further discussion, contact:
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