Case 2: Sleep Disordered Breathing

Approach

To explore currently federal funded projects and their publications associated with sleep disordered breathing, I used Research Portfolio Online Reporting Tools to find out:
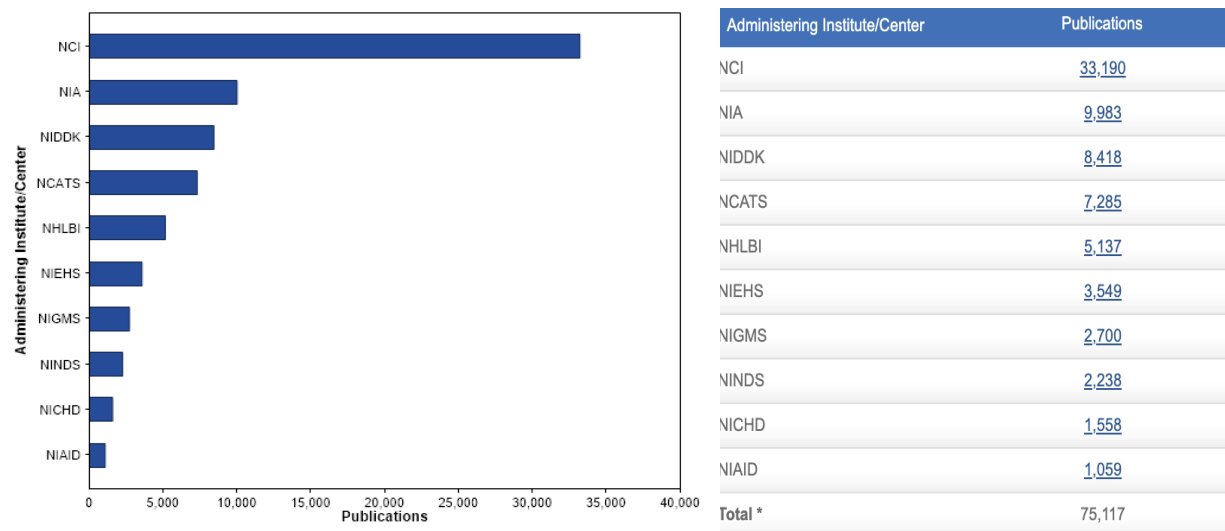
- From 2000 – 2019, which administering institute / organizations have the highest number of publications related to "sleep disordered breathing"?
- Within these publications, what topics are talked about most related to "sleep disordered breathing"?
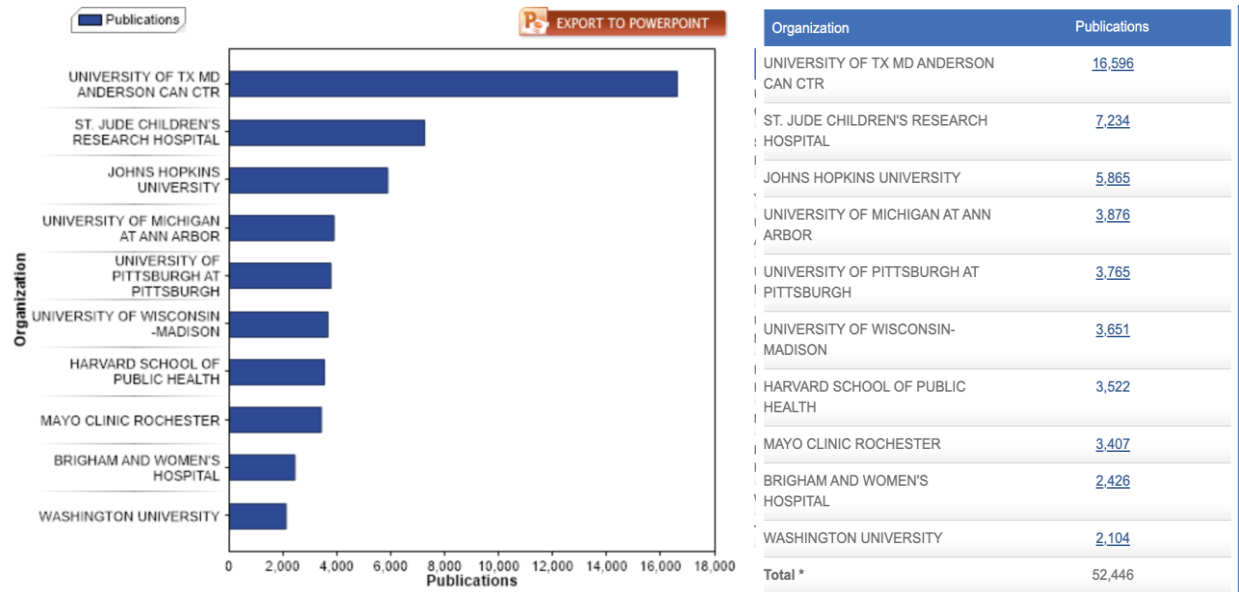
Tools

To solve the problems stressed in the approach, I used NIH Research Portfolio Online Reporting Tools, which an intuitive, easy-to-use tool for navigating and analyzing large-scale funding data published on National Institutes of Health (NIH) website.
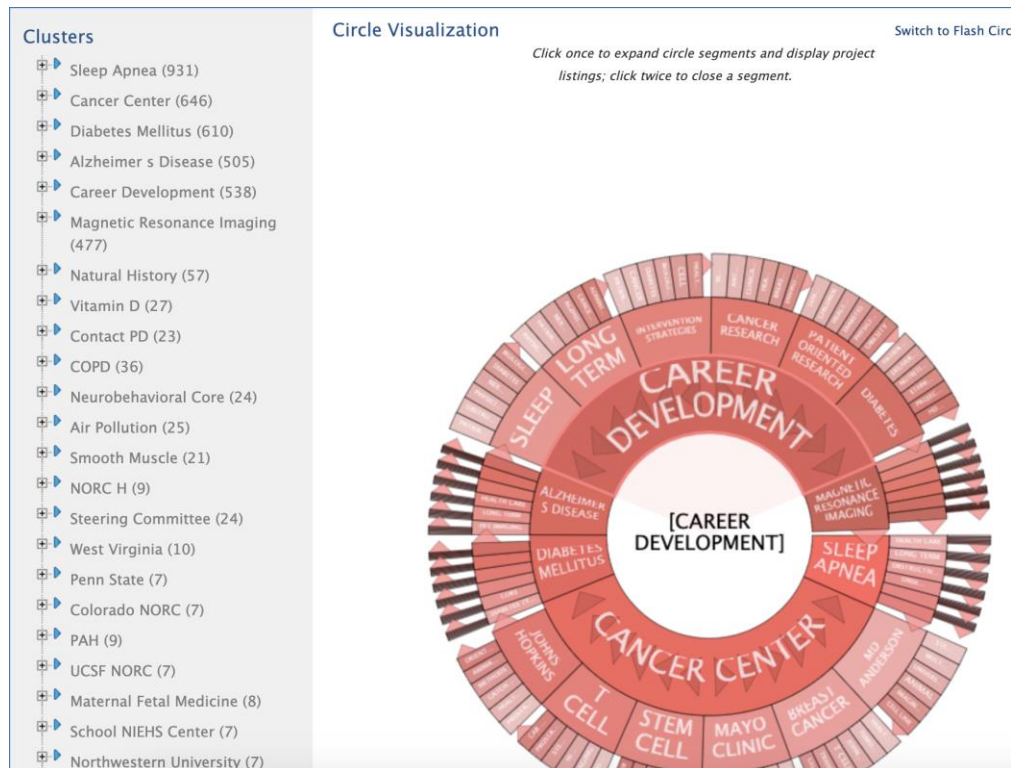
Results

From the chart below, we can see that NCI (National Cancer Institute) has the highest number of publications which is 33,190, followed by NIA (National Institute of Aging), NIDDK (National Institute of Diabetes & Digestive & Kidney Diseases, etc.

Administering Institute/Center	Publications
NCI	33,190
NIA	9,983
NIDDK	8,418
NCATS	7,285
NHLBI	5,137
NIEHS	3,549
NIGMS	2,700
NINDS	2,238
NICHD	1,558
NIAID	1,059
Total *	75,117

From perspective of universities research, we can see that The University of Texas MD Anderson Cancer Center has the greatest number of publications which is 16,596, followed by St. Jude Children's Research Hospital, Johns Hopkins University, University of Michigan At Ann Arbor, etc.

Organization	Publications
UNIVERSITY OF TX MD ANDERSON CAN CTR	16,596
ST. JUDE CHILDREN'S RESEARCH HOSPITAL	7,234
JOHNS HOPKINS UNIVERSITY	5,865
UNIVERSITY OF MICHIGAN AT ANN ARBOR	3,876
UNIVERSITY OF PITTSBURGH AT PITTSBURGH	3,765
UNIVERSITY OF WISCONSIN-MADISON	3,651
HARVARD SCHOOL OF PUBLIC HEALTH	3,522
MAYO CLINIC ROCHESTER	3,407
BRIGHAM AND WOMEN'S HOSPITAL	2,426
WASHINGTON UNIVERSITY	2,104
Total *	52,446

Within these publications, by implementing clustering technique, we can see some topics have been extensively discussed, such as Sleep Apnea, Diabetes Mellitus, Alzheimer Disease, Career Development, etc. These topics are worth to be explored.

To view the full detail of clustering result,   Clink link