Public Health & Clinical Research Homework Template

**Public Health**

CDC flu surveillance

1. **Could this same approach be used for other conditions?**

**The weekly reporting of the influenza virus in the country is the strategy described on the site. The fifth-week pattern demonstrates the persistence of sporadic influenza activity across the country. Similar illnesses, such as viral or bacterial infections that afflict many people, can be addressed with this method.**

1. **What other conditions that are monitored as part of syndromic surveillance would be appropriate using this approach?**

**COVID-19 turns out to be a perfect example for matching the same approach as influenza. This viewpoint covers the entire situation, including subtype categorization and genetic composition. Details of the laboratory report, as well as statistics on the severity and accompanying disease, as well as the death rate, are shown, adding to its value. In addition, the user may see a graphical depiction of the complete data and trends, which makes it easier to interpret. In addition, vital information on vaccination status is provided.**

**When this method is used to COVID-19 data, the disease's patterns and severity may be examined, allowing for the required precautions and education to be taken. Apart from that, any infectious illness may report trends using the same method.**

**Reference:**

[**https://www.cdc.gov/nssp/covid-19-response.html**](https://www.cdc.gov/nssp/covid-19-response.html)

COVID-19 Dashboards

1. **Do they all report the same data?**

**No, they do not report the same data concerning COVID-19.**

**One of the main reasons for this might be the usage of different methods of data collection and infrequent updating of their websites with the latest information.**

**For instance, the total cases reported according to CDC site in the last 30 days is 77,516,009 and in COVID-19 worldometer dashboard is 79,293,924 which was updated 2 days ago.**

1. **Observe how it is presented.  Do the graphs accurately reflect the numbers or are they manipulated to appear better or worse?**

**All the data on the website is also shown graphically to provide a comprehensive overview. Because graphs employ a scale to depict values, I feel they do not show precise figures. Furthermore, predicting exact numbers from graphs is challenging. Graphs, in my perspective, are not modified to make them look better or worse; rather, they show all the data in a compact way.**

1. **Which one is easier to use?**

**Each website has certain features unique to them. For instance, the CDC site has vaccine finder attributes which makes it easy for the users. Additionally, this site provides enormous data regarding variants genetic data, pediatric and pregnancy data, and many more which aren’t available in the remaining two sites. So, if feel CDC COVID-19 dashboard contains all the information a user expects and incorporates all the features that make information accessibility easy for the user.**

Healthmap

1. **What countries have or had outbreaks of yellow fever in 2021?**

**Countries like Brazil, Venezuela, France, Africa, Ghana, Nigeria, Cameroon had outbreaks of yellow fever in 2021.**

**Map

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1. **Have there been any fatal human cases of rabies in the world in 2021?  If so, where?**

**There is only one fatal human case for rabies in Nelson Mandela Bay, Eastern Cape, South Africa in the year 2021.**

**A screenshot of a computer

Description automatically generated with medium confidence**

**Clinical Research**

RedCap vs Open Clinica

1. **Compare and contrast the two resources.**

OpenClinica and REDCap are two excellent electronic clinical research platforms. Both provide tools for extracting and integrating data from EHRs into their websites. REDCap has more features than OpenClinica, such as multi-site accessibility, completely customisable qualities, and regulatory compliance, but it lacks a clinical trial administration portion.

1. **How could these resources aid clinical research projects, or your student research projects?**

**Data collection is the first and most important phase in every research project. The research sample must be chosen based on the study's attribute of interest, which is another time-consuming operation. With the aid of these resources, all these tasks can be accomplished with the help of EHRs.**

Research Match or TrialX vs ClinicalTrials.gov

1. **Compare and contrast**

**Both resources assist in the selection of research subjects for clinical trials depending on their features.**

**TrialX is a private third-party website that helps researchers identify relevant study groups and existing studies by providing selection criteria. ClinicalTrials.gov, on the other hand, is a government-run website that includes a few features such as the research group's selection criteria and the study's availability of participants. When compared to ClinicalTrials.gov, TrialX provides a lot more tools to make the search easier.Graphical user interface, website

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CTSI at IU

1. **How could this resource be integrated with the EHR to recruit research participants?**

**When this resource is linked to an EHR, it becomes much easier to recruit research volunteers because the study population's data can be retrieved. It is also easier to pick the study group when needed if the patient's willingness for the clinical trial is mentioned in the EHRs. Once this source is connected with EHRs, the essential information may be obtained and stored ahead of time from consenting participants, cutting corners.**