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Subject: Existing water and sanitation infrastructure's impact on diarrhea incidents  
Posted by [pinny](#) on Fri, 06 Mar 2015 21:22:00 GMT

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Hi all,

I'm a graduate student, who is looking for a data to verify my model. I'm trying to find a detail data on existing water and sanitation infrastructure in a specific area (a municipality level) in developing countries, where there are a detail on infrastructure upgrade/improvement over time. Then, I would like to use this information to relate with how diarrhea incidents evolve over time in that area. How's water and sanitation infrastructure improvement impact the reduction of diarrhea incidents?

Could anyone please help to tell me about what area have the most detail on water and sanitation infrastructure and diarrhea incidents on the existing data? Or any suggestion on how to find these data would be greatly appreciated.

Thank you very much.

Best,  
Pinn

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Subject: Re: Existing water and sanitation infrastructure's impact on diarrhea incidents

Posted by [Reduced-For\(u\)m](#) on Sat, 07 Mar 2015 22:27:46 GMT

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Usually this is done by merging several datasets. Many DHS surveys (all?) ask where the household gets their water (piped, well, etc). Then, people often bring in external data from some country or region on expansion of water policies/investments, and use that information to instrument for water access by the households in the DHS data. The water availability roll-out data usually has to come from just shoe leather work: google, talks with government people, reading about programs in various countries, etc. But that information (plausibly exogenous roll out of water access) is just something you have to find on your own (otherwise someone probably would have already done it!).

So the basic idea is something like this, for estimating the causal effects of water access on diarrhea (or whatever outcome): external data for an instrument, water access data from the DHS is the first-stage dependent variable, and then diarrhea (or whatever) would be the final outcome in the second-stage.

That help?

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Subject: Re: Existing water and sanitation infrastructure's impact on diarrhea

incidents

Posted by [Liz-DHS](#) on Mon, 16 Mar 2015 22:45:45 GMT

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Thank you for your input Reduced-For(u)m.

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Subject: Re: Existing water and sanitation infrastructure's impact on diarrhea incidents

Posted by [kingx025](#) on Sun, 22 Apr 2018 00:19:04 GMT

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A complementary source that you might turn to for additional data on water and sanitation facilities is the international census data from the IPUMS-International project (at [international.ipums.org](http://international.ipums.org)), in particular, the WATSUP, SEWAGE, and TOILET variables. These samples are very large, normally 10 percent of enumerated households, and usually have geographic detail down to the second administrative level. There is no data on diarrheal disease collected in censuses, but for DHS samples with GPS point data on sample clusters, you can map the sample clusters onto the IPUMS-I regions, sum values for the region for variables of interest, attach those values to the DHS microdata, and see, for example, if children in regions with higher incidence of piped water and flush toilets have lower incidence of diarrheal disease. Let me know if you want further information about this approach.

Miriam King

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