Using Wastewater Surveillance to Understand Infectious Disease Trends

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ASCP STRONGERTOGETHER

Summary of Case Study Presented:

In this third session of the Building Bridges Across the Laboratory Community series, Amy Kirby, MPH PhD. presented on how wastewater surveillance has been used since the 1960s to identify communities with polio transmission. During the COVID-19 pandemic, this surveillance approach was modified to detect infection trends. Wastewater data is a leading indicator of increases and decreases in COVID-19 and is used to inform public health messaging, resource allocation and personal decisions, like masking and travel.

Lessons Learned/*Best Practices* Applied by Faculty:

1. **Not all laboratories are the same. Each lab partner brings with it unique capacities, strengths, and motivations.**
   In order to leverage potential laboratory partnerships, it is critical to keep up-to-date on current activities and progress in your field of interest in order to identify each potential partner's capacities, strengths, and motivations. If a laboratory partner has strengths, experience and flexibility in a particular area of interest, begin collaborative work there rather than starting from scratch.

2. **Successful partnerships rely on effective and transparent communication of each partner's strengths and limitations.**
   a. *For academic partners, consider discussing issues related to research data usage and rights, as well as intended publication plans upfront to clarify if/how data gathered from collaboration may be used by either partner.*
   b. *For commercial partners, clarify upfront (and as necessary) that collaboration is not an endorsement of commercial test/product, rather it is an independent evaluation of it, with no obligation to use it, should it no longer serve an intended need of the study.*
   c. *For public health partners, understand upfront what may be sustainable within the scale of existing testing operations. It is critical to come to this partner with an "ask" that is streamlined for their existing operations, capacity, and limitations, to make the additional collaborative work as easy as possible to support.*

3. **Prior to establishing a new clinical test for populations at scale, it is critical to clearly identify the intent of use of the test, privacy considerations, and establish clear guardrails around the data.**
   Clearly define public health use of new clinical testing and consider what clinical implications or actions will come from testing, particularly when testing could be potentially linked to law enforcement. Data set sharing should be considered within the context of population's privacy concerns and potential impacts on communities that are subject to stigmatization.

Visit our hub site to find additional resources for this Building Bridges Across the Laboratory session!

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