

## 2022년 제 8회 통계세미나

고려대학교 통계연구소와 BK21 통계학교육연구팀이 다음과 같이 공동으로 세미나를 개최하오니 많은 참여 바랍니다.

일시 : 2022년 6월 22일(수) 오전 11시

장소 : 고려대학교 정경관 201 호

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### **Optimal Allocation of Water and Sanitation Facilities To Prevent Communicable Diarrheal Diseases in Senegal Under Partial Interference**

<Abstract>

For several decades, Senegal has faced inadequate water, sanitation, and hygiene (WASH) facilities in households, contributing to persistent, high levels of communicable diarrheal diseases. Unfortunately, the ideal WASH policy where every household in Senegal installs WASH facilities is impossible due to logistical and budgetary concerns. This work proposes to estimate an optimal allocation rule of WASH facilities in Senegal by combining recent advances in personalized medicine and partial interference in causal inference. Our allocation rule helps public health officials in Senegal decide what fraction of total households in a region should get WASH facilities based on block-level and household-level characteristics. We characterize the excess risk of the allocation rule and show that our rule outperforms other allocation policies in Senegal.

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