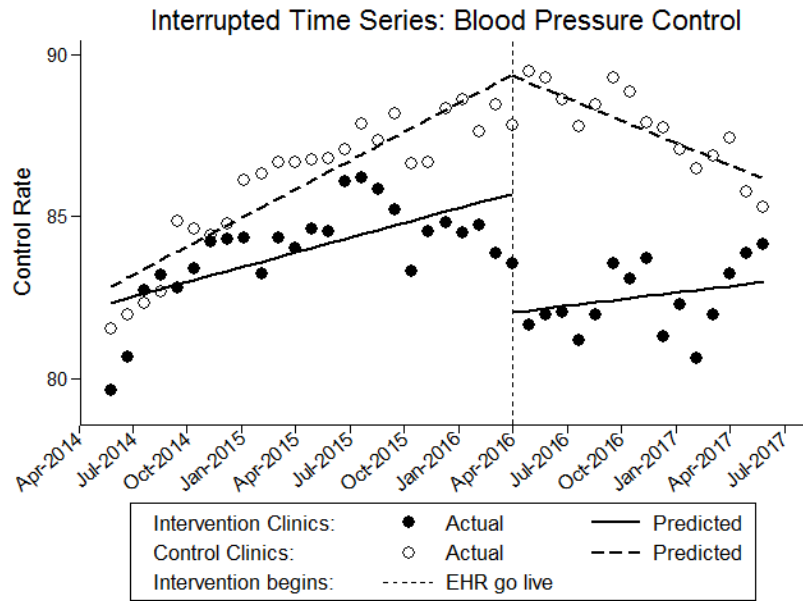


## Supplementary Content

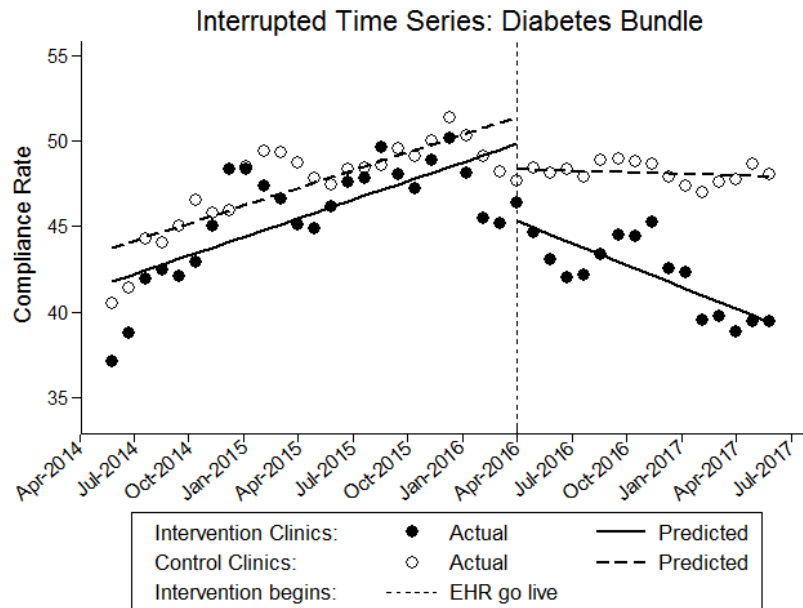
**Figure S1 to Figure S15 – Graphs of measures that detected a significant impact in our previous longitudinal evaluation**

**Table S1 – Interview script**



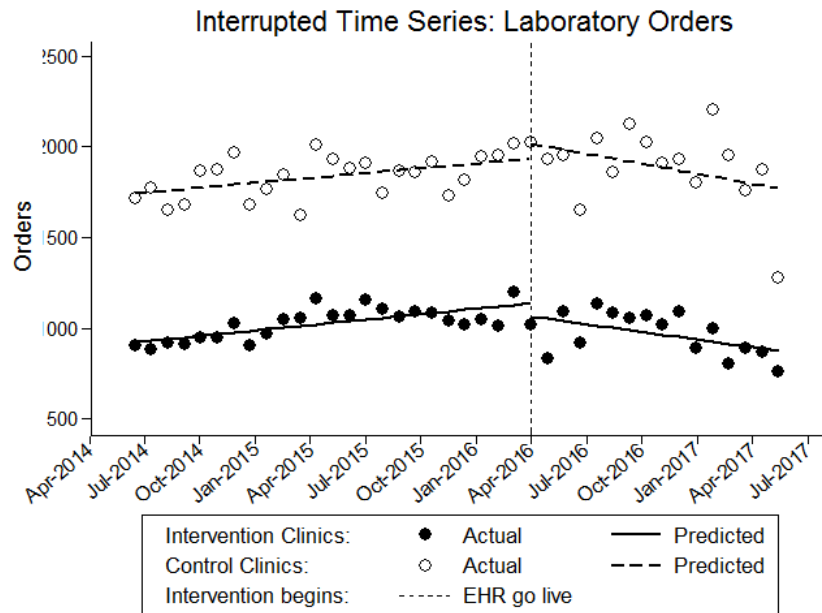
**Figure S1. Blood pressure control rate per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the proportion of diabetes patients with blood pressure in control over time with a significant decrease immediately after the go live followed by a significant increase over time in the intervention sites when compared to control sites.



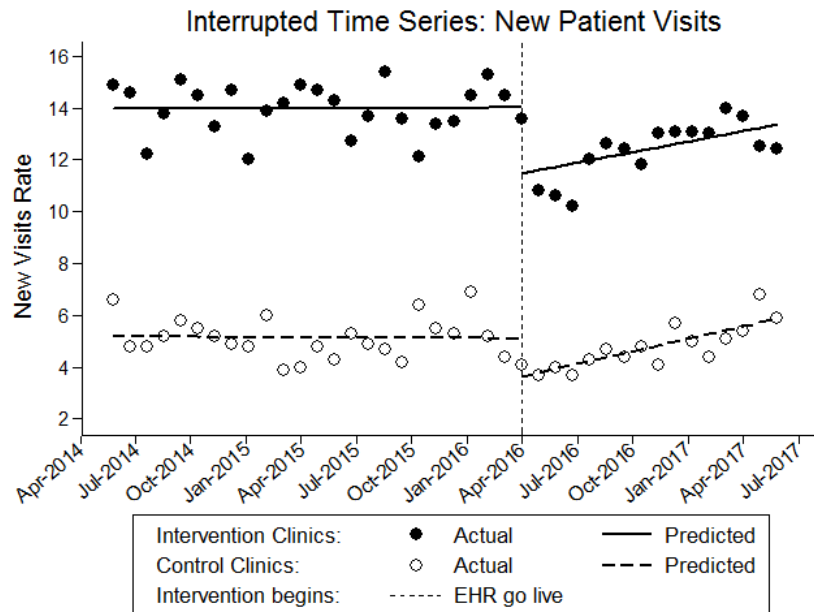
**Figure S2. Diabetes bundle compliance per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the proportion of diabetes patients in compliance with all bundle items over time with a significant decrease immediately after the go live and over time in the intervention sites when compared to control sites.



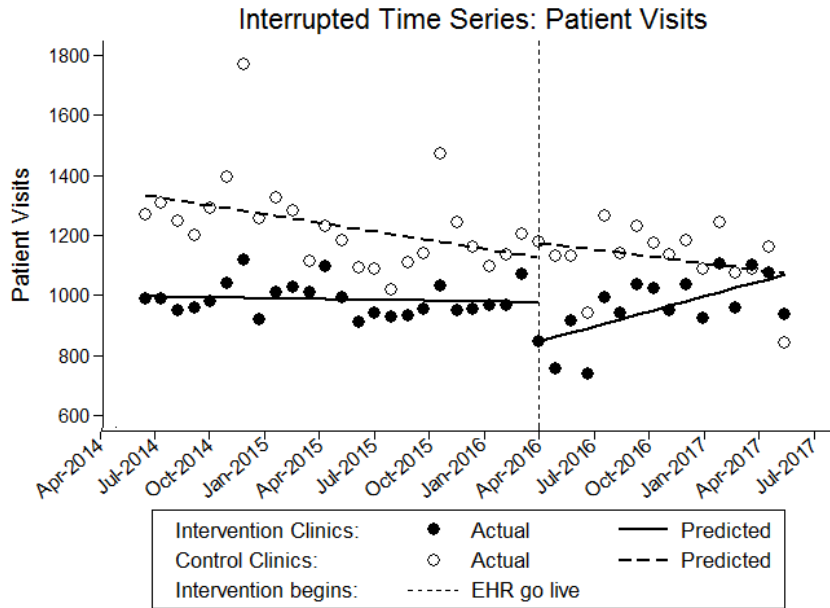
**Figure S3. Number of laboratory test orders per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the number of laboratory orders over time with a significant decrease immediately after the go live in the intervention sites when compared to control sites.



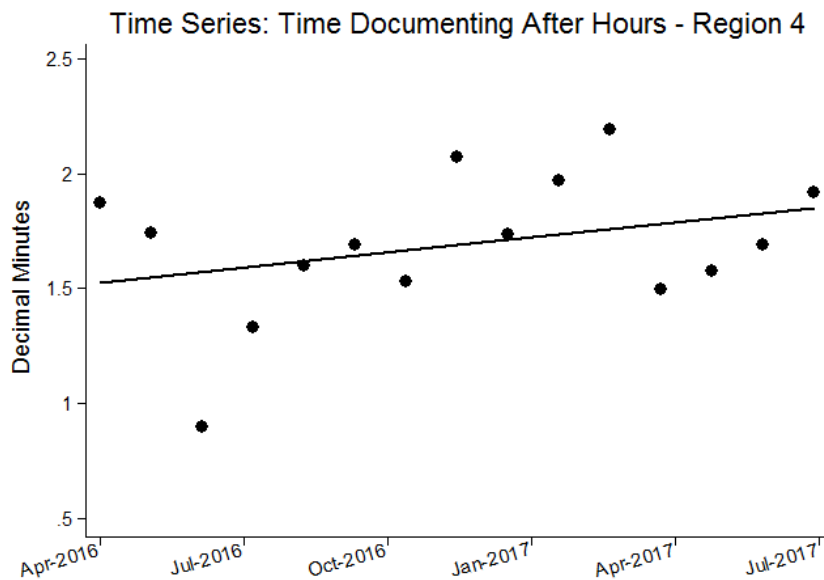
**Figure S4. Rate of new patient visits per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the proportion of diabetes patients with blood pressure in control over time with a significant decrease immediately after the go live in the intervention sites when compared to control sites.



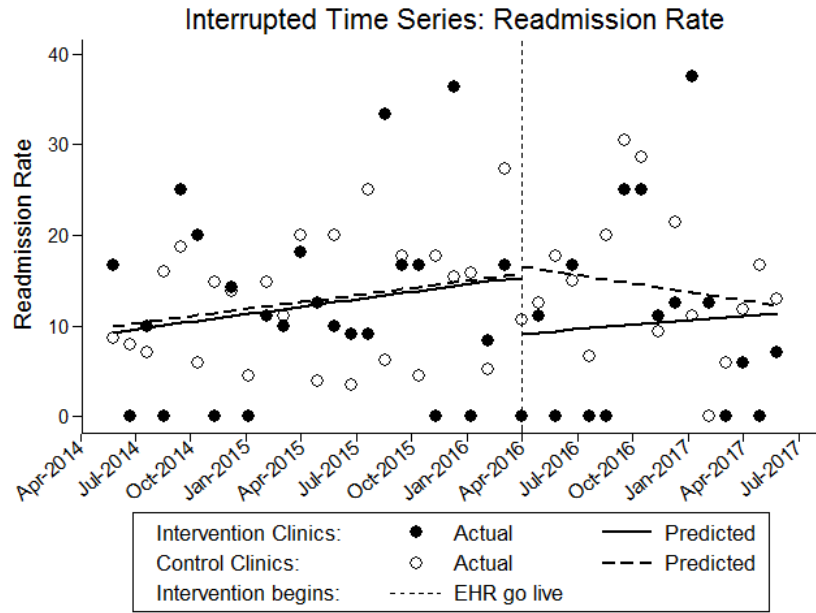
**Figure S5. Total patient visits per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the number of patient visits over time with a significant decrease immediately after the go live followed by a significant increase over time in the intervention sites when compared to control sites.

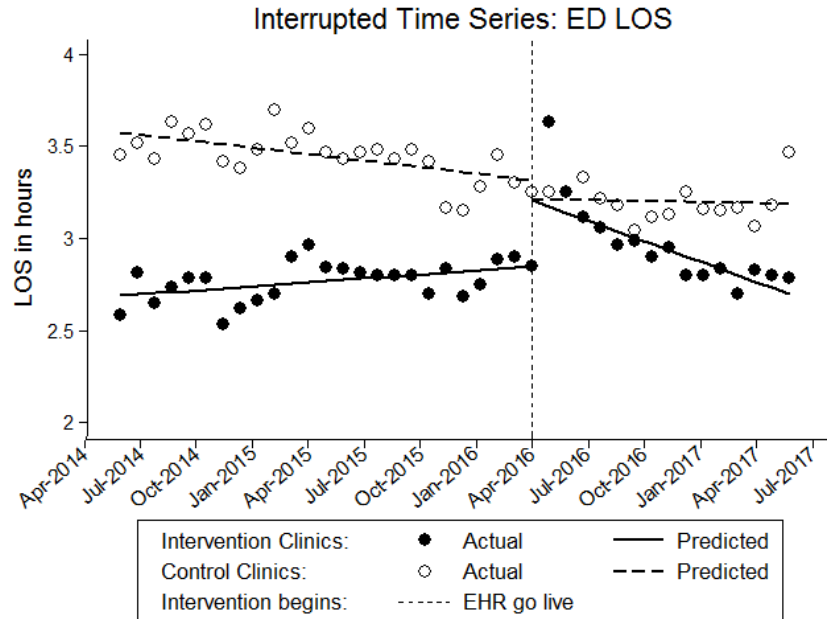


**Figure S6. Time documenting in the EHR after 6 p.m. per month**

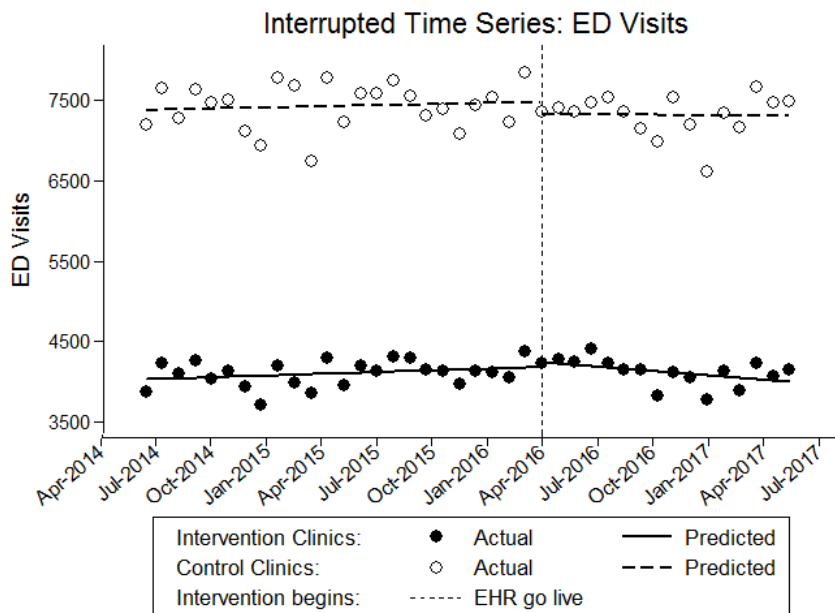
Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates average time documenting per provider per patient after 6 p.m. in the post-intervention period with a significant increase over time in the intervention sites. Data to calculate this measure were available only in the new EHR and were assessed in the intervention without a baseline and control.



**Figure S7. Rate of heart failure patients readmitted within 30 days per month**  
 Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates readmission rate over time with a significant decrease immediately after the go live in the intervention site when compared to the control site.

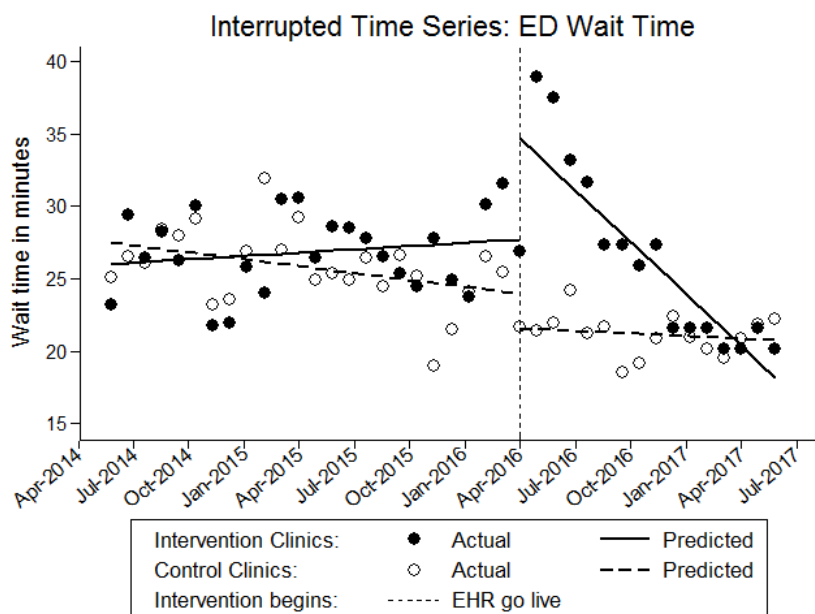


**Figure S8. Emergency department length of stay per month**  
 Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the median length of stay in hours in the Emergency Department (ED) over time with a significant increase immediately after the go live followed by a significant decrease over time in the intervention site when compared to the control site.



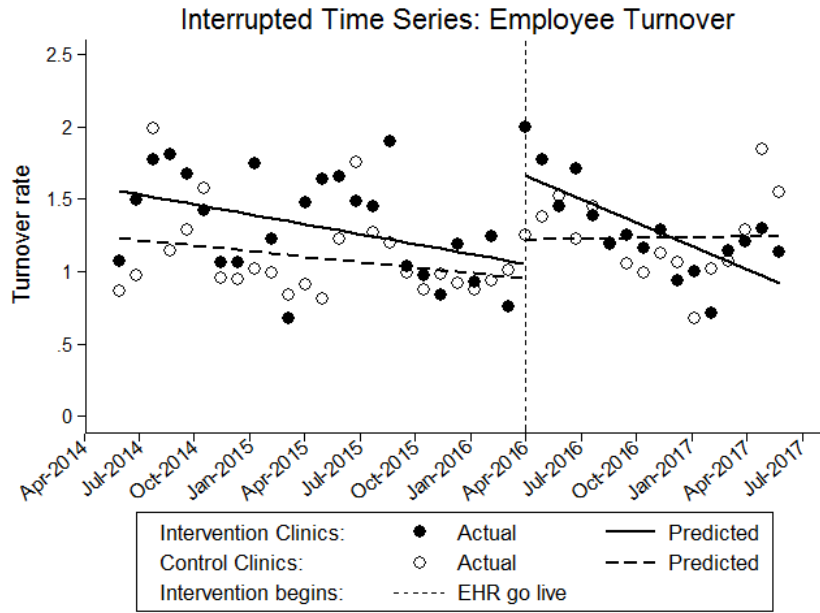
**Figure S9. Emergency department visits per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the number ED visits over time with a significant increase immediately after the go live in the intervention site when compared to the control site.



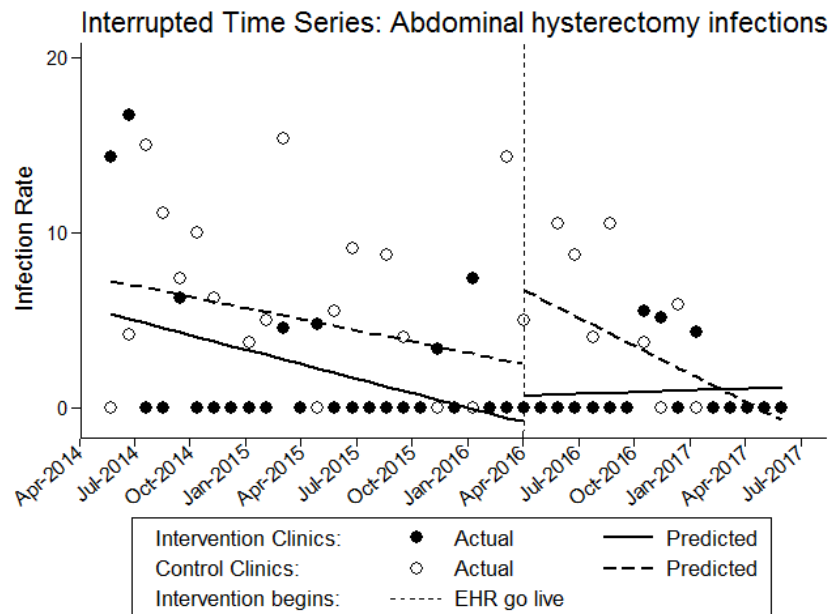
**Figure S10. Emergency department wait time per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the median time to be admitted in the ED over time with a significant increase immediately after the go live followed by a significant decrease over time in the intervention site when compared to the control site.



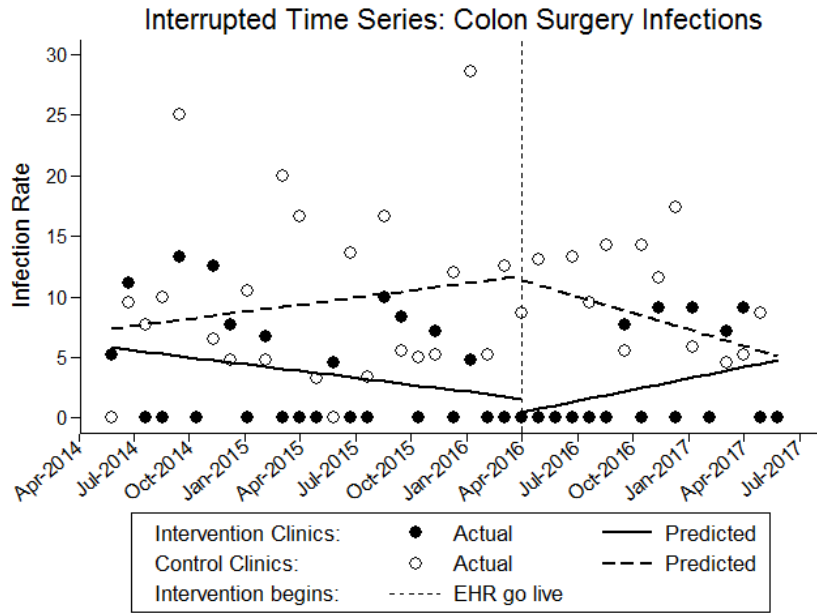
**Figure S11. Employee turnover rate per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the employee turnover rate over time with a significant increase immediately after the go live in the intervention site when compared to the control site.

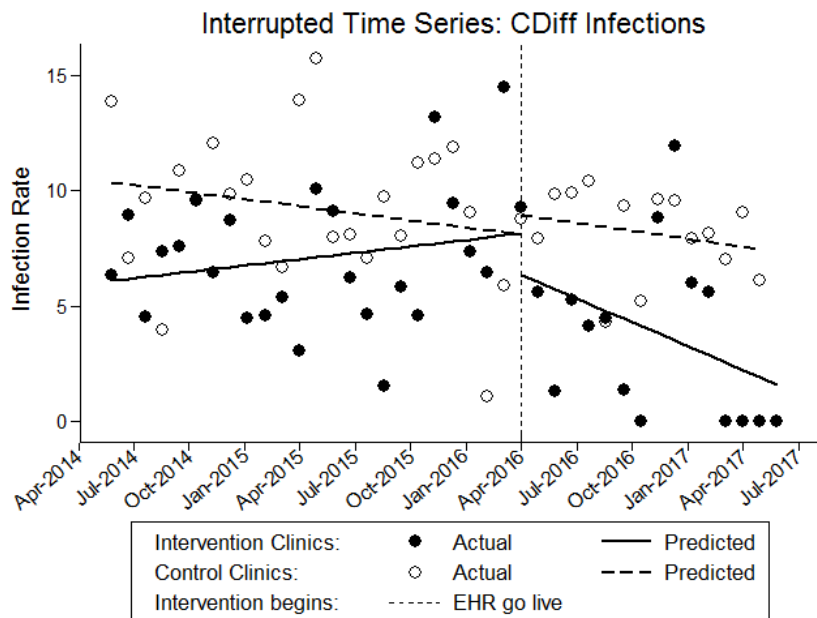


**Figure S12. Rate of hospital-acquired abdominal hysterectomy infections per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the rate of infections over time with a significant increase per month after the go live in the intervention site when compared to the control site.

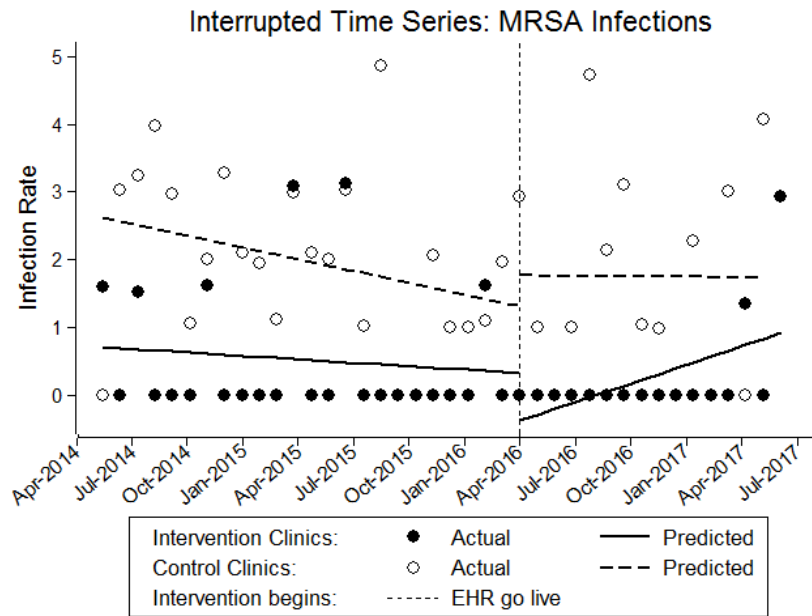


**Figure S13. Rate of hospital-acquired colon surgery infections per month**  
 Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the rate of infections over time with a significant increase per month after the go live in the intervention site when compared to the control site.



**Figure S14. Rate of hospital-acquired infections of Clostridium Difficile per month**  
 Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the rate of infections over time with a significant decrease per month after the go live in the intervention site when compared to the control site.





**Figure S15. Rate of hospital-acquired infections of Methicillin-resistant Staphylococcus aureus per month**

Source: Graph retrieved from our previous longitudinal evaluation[9]. Notes: The graph illustrates the rate of infections over time with a significant decrease immediately after the go live in the intervention site when compared to the control site.

**Table S1. Interview script**

Interview phase	Questions asked
<p>Questions about perceptions of the performance changes detected and identification of complementary factors that could have caused those changes</p>	<p>a. During the new EHR go live, did you notice the performance change(s) on the outcomes presented here?</p> <p>b. What other changes to processes, procedures, resources, and assets were introduced during the implementation of the new EHR?</p> <p>c. Do you believe these changes are associated with the outcome(s) here presented? If so, how did the change(s) impact the outcome and your work?</p>
<p>Questions about the time when these factors were introduced</p>	<p>a. Please describe how you were informed about and prepared for the changes previously discussed?</p> <p>b. When these changes were introduced (before, after go live)?</p> <p>c. Are they still impacting your work? How?</p>
<p>Questions to understand how these factors affected the study outcomes</p>	<p>a. Please tell me about any strategies implemented by the IH leadership to mitigate/maximize the impact introduced by the implementation or by the changes previously discussed?</p> <p>b. Were they effective?</p> <p>c. Do you believe that lack of training and/or go live support could have contributed to these changes and impacted the outcomes?</p>
<p>'What-if' queries: questions to identify confounders that could be measured with data available in electronic format in future evaluations to monitor the factors elicited by the interviews</p>	<p>a) Are there any other process or outcome with data available in electronic format that could be measured as a confounder (potential alternative explanation to the impact observed) for monitoring the changes previously discussed?</p> <p>b) Other what-if queries were identified during the interviews based on the complementary factors described by interviewee.</p>

Source: Interview script.