

# Evaluating Effects of an Alcohol Hand Sanitizer Program on Employee Absenteeism: Pilot Results

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**Background:** It is well recognized that hands are the primary mode of transmission of many infectious diseases. Most workplace environments share key predisposing factors that contribute to infection transmission, such as close working environments, shared bathrooms, and break rooms for eating or cafeterias. Absenteeism caused by transmissible diseases is a major contributor to lost productivity in the workplace and to most companies. The objective of this pilot study was to examine the effectiveness of an alcohol-based hand sanitizer program on reducing employee absenteeism due to transmissible infections. Concurrently, the feasibility of executing a workplace study was also examined.

**Design:** 34-week prospective intervention study.

**Setting/Participants:** FedEx Custom Critical, in Green, OH. The study populations were created using two different floors in the same building, with approximately 250 employees on each floor. The sample populations were composed of similar “white-collar” jobs including customer service, sales/marketing, and operation managers. The employees in each group did not interact with each other on a regular basis.

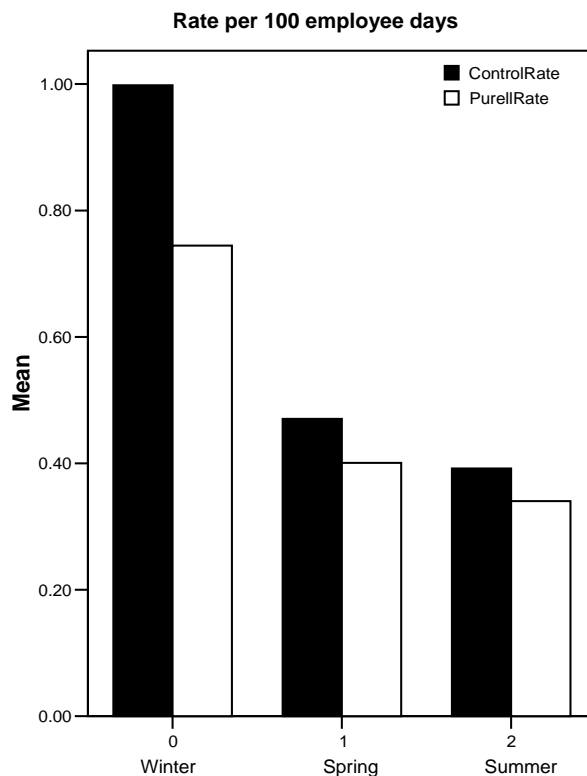
**Intervention:** Alcohol-based instant hand sanitizer (PURELL®) and educational program.

**Main outcome measures:** Absenteeism rates, measured via self report.

**Results:** The observed absenteeism rate for the test population was 0.494 per 100 employee days vs. 0.618 per 100 control employee days ( $p=0.097$ ). This suggested intervention with an alcohol hand sanitizer program results in lower absence rates due to illness.

This rate of illness reduction translated into a 21% increase in viable work days. Additionally, absenteeism rates by season were also calculated and compared (winter:  $p = 0.087$ ; spring:  $p = 0.288$ ; and summer:  $p = 0.271$ ).

**Conclusions:** This study demonstrates that using an alcohol-based instant hand sanitizer in conjunction with a simple educational program in a workplace setting could produce a positive effect on absenteeism. The absenteeism rate observed in the intervention population was 21% lower than the non-intervention population, indicating this addition to a workplace wellness program could gain an employer several employee work days per year. Additionally, it appears the program is most effective during winter months when transmissible diseases are most prevalent.



**FIGURE 1- Absenteeism rates during the weeks of winter (1/12-3/22) spring (3/29-6/21) and summer (6/28-8/30). ( $p = 0.087$ ;  $p = 0.288$ ;  $p = 0.271$ , respectively)**