

**Personal Hygiene and Sanitation Education (PHASE) and the Factors Influencing School
Absenteeism among Pupils in Kibera Slum Nairobi, Kenya.**

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ABSTRACT

Children living in the slums are subjected to environments that deny them the opportunity to achieve effective education hence subjecting them to health hazard situations. Personal hygiene and sanitation education (PHASE) was initiated by GlaxoSmithKline (GSK) after identifying it as a neglected health education priority. It aims to improve the health of school going children by reducing hygiene and sanitation related illness and reduce absenteeism. The main aim of this study was to assess PHASE and the factors influencing school absenteeism among pupils of Kibera Slums, Kenya. A cross-sectional study whose study population comprised of pupils attending schools in Kibera was undertaken. A total of 317 pupils, from PHASE and non-PHASE schools, were recruited into the study using multistage sampling and personal interviews carried out using semi-structured questionnaires. Additional qualitative data was obtained using interviews with teachers, Focus Group Discussion (FGD) with parents, In-depth interviews (IDIs) with key informant and an observational checklist. Quantitative data were analyzed using SPSS statistical software version 12. Pearson chi-square was used to determine association of selected factors with absenteeism, multivariate logistic regression was used to control for confounders and effect modification whereas thematic analysis was used to analyze qualitative data. Mean number of pupils absent on the day of the interview was 13 ± 6.6 in PHASE schools and 23 ± 7.8 in non-PHASE schools. In the previous two weeks before the interview, 53% of pupils in PHASE and 84% in non-PHASE schools said they had missed school with a majority, 55% in PHASE and 52% in non-PHASE, being the male pupils. Gender had no significant relationship with absenteeism in both schools ($\chi^2=0.01$, d.f=1, $p = 0.914$). Ninety eight percent (98%) of pupils in PHASE and 100% in non-PHASE schools said that illness was the most probable reason why pupils in their class missed school. In the previous two weeks before the

interview, illness caused 71 % of pupils in non-PHASE and 45% in PHASE schools to miss school. Illness had a significant association with absenteeism in non-PHASE ($p < 0.0001$) and PHASE schools ($p = 0.043$). Ill pupils in PHASE schools had a significant decreased risk of absenteeism by 0.28 (C.I 0.19 – 0.42, $p < 0.0001$) compared to ill pupils attending a non-PHASE schools. Seventy five percent (75%) of latrines in PHASE schools were ventilated improved pit (V.I.P) latrines with a pupil toilet ratio (P.T.R) of 58:1 for boys and 53:1 for girls. In non-PHASE schools, 57 % of the toilets were ventilated improved latrines with a PTR of 134:1 for boys and 130:1 for girls. Seventy five percent (75%) of PHASE schools had piped water and hand washing facilities. Although all non-PHASE schools had water tanks, none had piped water. In conclusion, pupils' personal factors, socio-demographic factors of parents and school environmental factors had a significant relationship with absenteeism in both school groups. Conditions of latrines in PHASE schools were better than in non-PHASE and the pupil toilet ratio in PHASE schools was lower than in non-PHASE schools. The PHASE project should be scaled up in other schools in the slum so that they can benefit from the pillars of hygiene and sanitation.