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Feeling the pressure – Initial results from a shopping centre/mall Pop-Up for screening intra-ocular pressure (IOP) across England

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Abstract

Purpose : Retail Pop-Ups in shopping centres/malls are increasingly commonplace. We report initial results from a “Feeling the Pressure” Pop-Up health check. We investigate the hypothesis that a Pop-Up combining an intra-ocular pressure (IOP) check with a general health check, such as blood pressure (BP), is more readily accepted by the general public than one offering an IOP check only. We also investigate public understanding of IOP compared to BP, and feasibility of using an Icare tonometer for measuring IOP in this setting.

Methods : We took the Pop-Up (Fig 1) to 8 regionally different shopping centres/malls across England. Each shopping centre visit comprised two consecutive testing days; we compared public engagement when an IOP check was offered in conjunction with BP measurement, compared to when only an IOP check was offered. IOP and BP were measured using the Icare IC100 tonometer (Mainline Instruments Ltd) and EW3106 blood pressure monitor (Panasonic) respectively. A sample of those examined reported on comfort and acceptability of Icare using a questionnaire with items recorded on a 5 point Likert scale.

Results : 768 participants were tested over 16 days. More participants attended the combined BP and IOP days (461; 60%; 95% confidence interval [CI] 56-64%) than IOP only days (307; 40%, 95% confidence interval [CI] 37-43%). We recorded IOP in 652 participants (116 declined IOP measurement) with a median (interquartile range) age of 54 (42, 68) years. Median (5th, 25th, 75th and 95th percentile) IOP was 13 (7, 11, 15, 19) mmHg. Of those asked (n= 858, includes 90 who declined to participate in the study), only 19% (95% CI 16-23%) reported knowledge of eye pressure in contrast to 71% (95% CI 66-75%) with knowledge of BP.

350 participants completed the Icare questionnaire, with 87% (95% CI 83-90%) rating the tonometer very comfortable or comfortable, and 85% (95% CI 81-88%) stating that the Icare caused little or no anxiety.

Conclusions : Examining IOP in large numbers of the public via a Pop-Up is feasible. Public engagement with the Pop-Up was greater when a BP check was offered alongside an IOP check. Reported public understanding of IOP was poor compared to their understanding of BP. Testing IOP with an Icare tonometer in a shopping centre Pop-Up was acceptable and comfortable in our population,

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Fig 1: Feeling the Pressure Pop-Up sited at a shopping centre/mall

