

# Patient involvement in a meta-analysis of inter-arm blood pressure difference (INTERPRESS-IPD):

## what's the point?



Kate Boddy, Kristin Liabo, John Goddard, Nigel Reed, Malcolm Turner, Christopher Clark.



### The INTERPRESS project

- Cardiovascular disease is the leading global cause of death. Since most events occur in those at low to medium cardiovascular risk, recognition of novel risk markers, to refine risk prediction and to stratify treatment priorities, is important.
- A difference in blood pressure between arms is one such risk marker. We have formed the INTERPRESS Collaboration to study this: we have combined data from 24 cohorts across Europe, the USA, Africa and Southeast Asia, totalling over 57,000 patient records.
- Our findings to date have confirmed the independent contribution of inter-arm blood pressure difference to improved prediction of cardiovascular and all-cause mortality; a difference of 5mmHg or more in systolic pressures represents the threshold for increased risk due to inter-arm difference.
- Emerging findings suggest that, by taking account of the inter-arm blood pressure difference, the Framingham Risk score can be refined to identify people with an inter-arm difference who could benefit from more intensive risk management, such as treatment to lower cholesterol or blood pressure
- The Collaboration continues to examine further associations of an inter-arm blood pressure difference with disease.



Blood pressure measured in both arms



Malcolm Turner, public advisor



Nigel Reed, public advisor



John Goddard, public advisor

### PPI = Patient & Public Involvement

Public involvement in research is research carried out *'with'* members of the public rather than *'to'*, *'about'* or *'for'* them.

### Approach to involvement

- A collaborative approach to PPI within INTERPRESS working with a 3 person public advisory group.
- Advisors and researchers co-produced terms of reference for the group and a role description.
- Routine inclusion of advisors on group e-mails.
- To ensure that PPI was an integral part of the research process, public advisors attended all of the project progress meetings.

### What enabled public advisors to contribute?

- Specific pre-meetings prepared advisors for the full research meetings by reviewing and discussing relevant documents. These meetings were highly valued by the public advisors.
- A PPI facilitator as co-applicant to co-ordinate involvement.
- Advisors praised the meetings' chair for creating an inclusive and equal meeting space: "...a chairman who could manage it all extremely well".

### What were some of the impacts of public involvement?

- Co-produced a plain language summary of the project to be included in the protocol document and project website.
- Revised collaborator invitation letters to emphasise data anonymisation and signposting to the protocol on PROSPERO.
- Suggested changes to the appraisal tool (QUIPS), subsequently endorsed by the project team. This was a significant impact for the project ensuring that the appraisal tool was fit for the purposes of the study.
- Ensured that a patient/end-user perspective is at the forefront of researchers' minds whilst conducting the research.

### Conclusions

We challenge the perceived view that there is little scope for PPI to be integrated within, and impact on technical research such as an individual patient data meta-analysis.