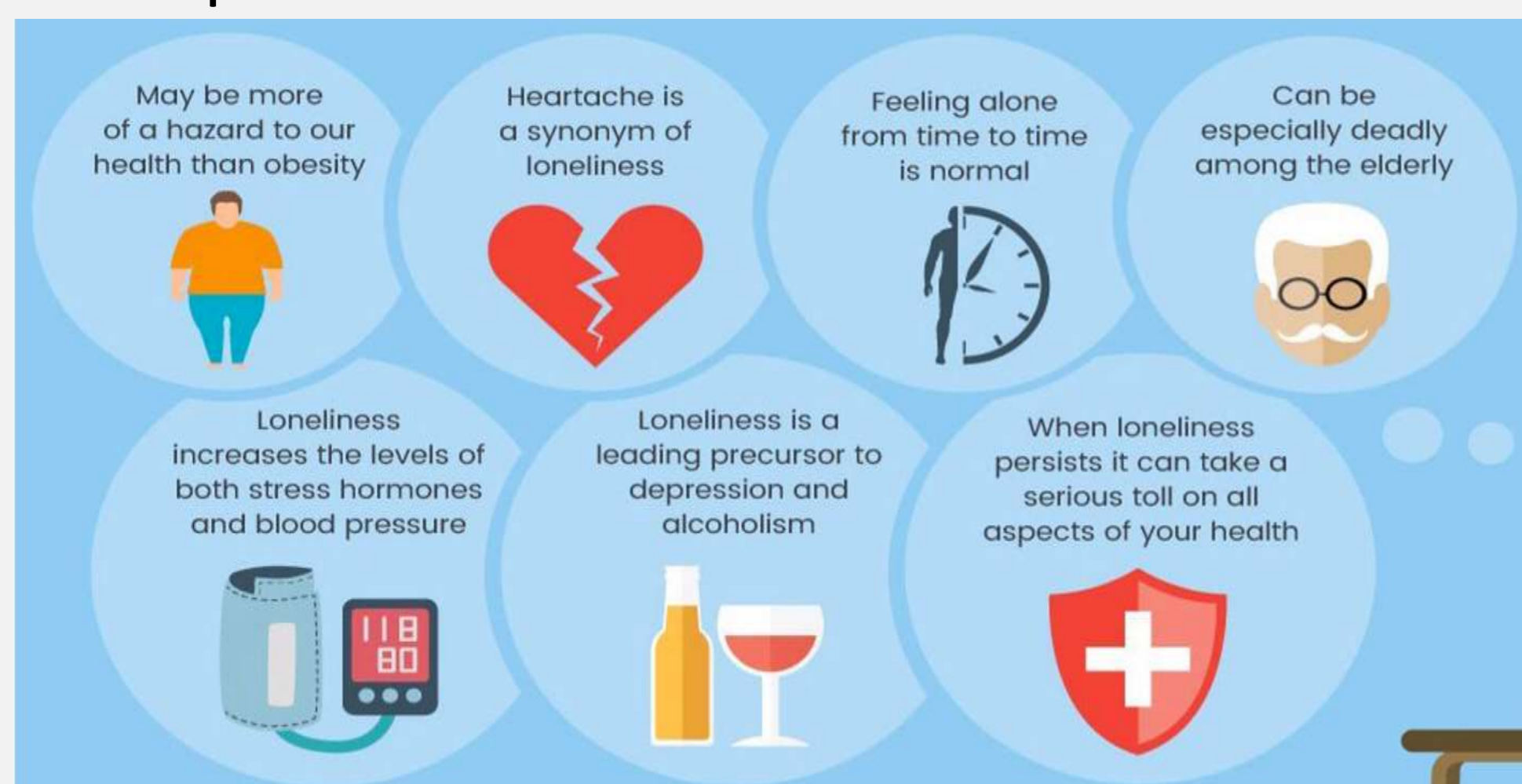




# LONELINESS DETECTION USING IoT

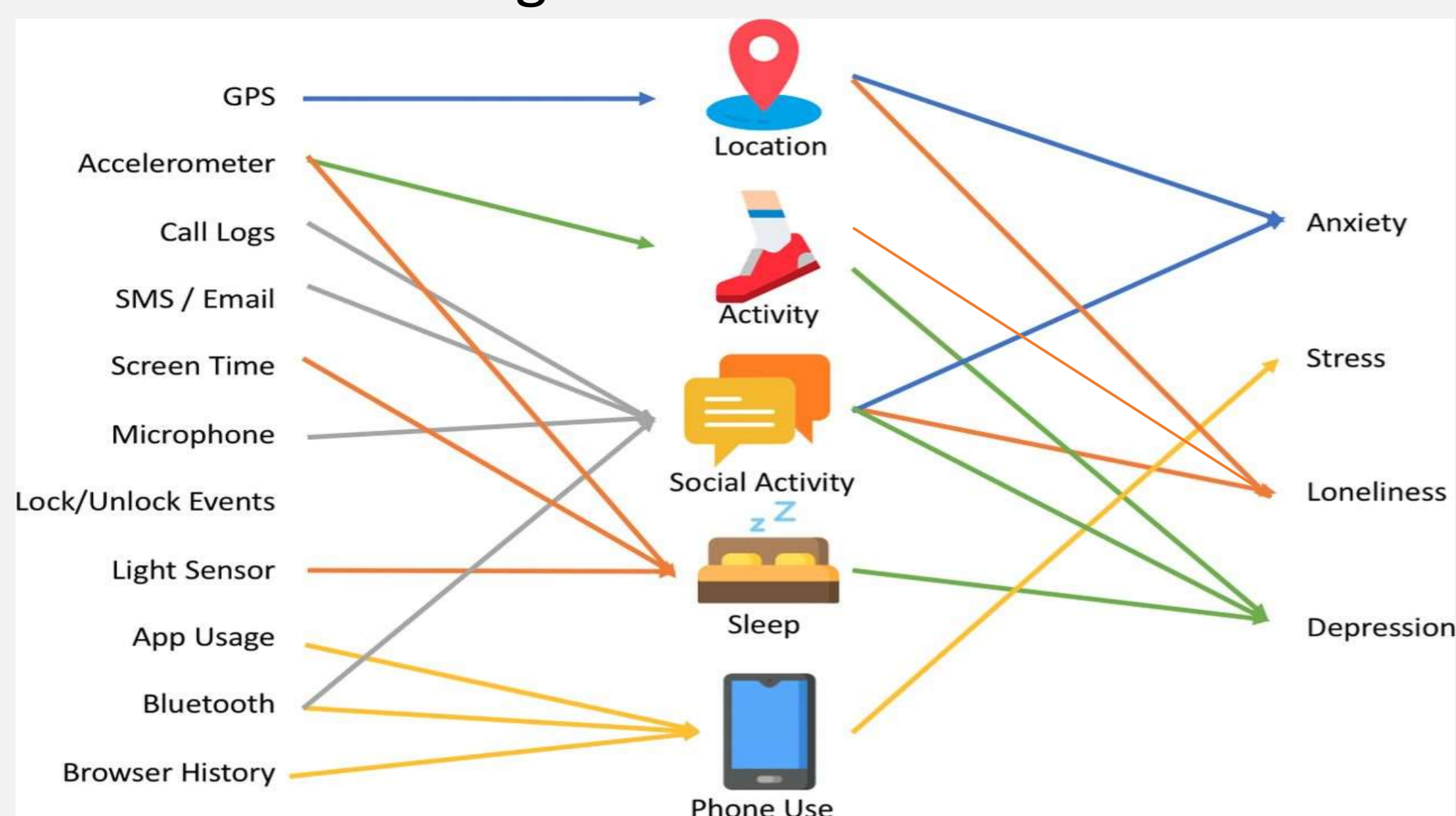
## MOTIVATION

"People of working age who live alone increase their risk of depression by up to 80% compared with people living in families", says a Finnish study. Loneliness has a wide range of negative effects on both physical and mental health, including stress and depression.



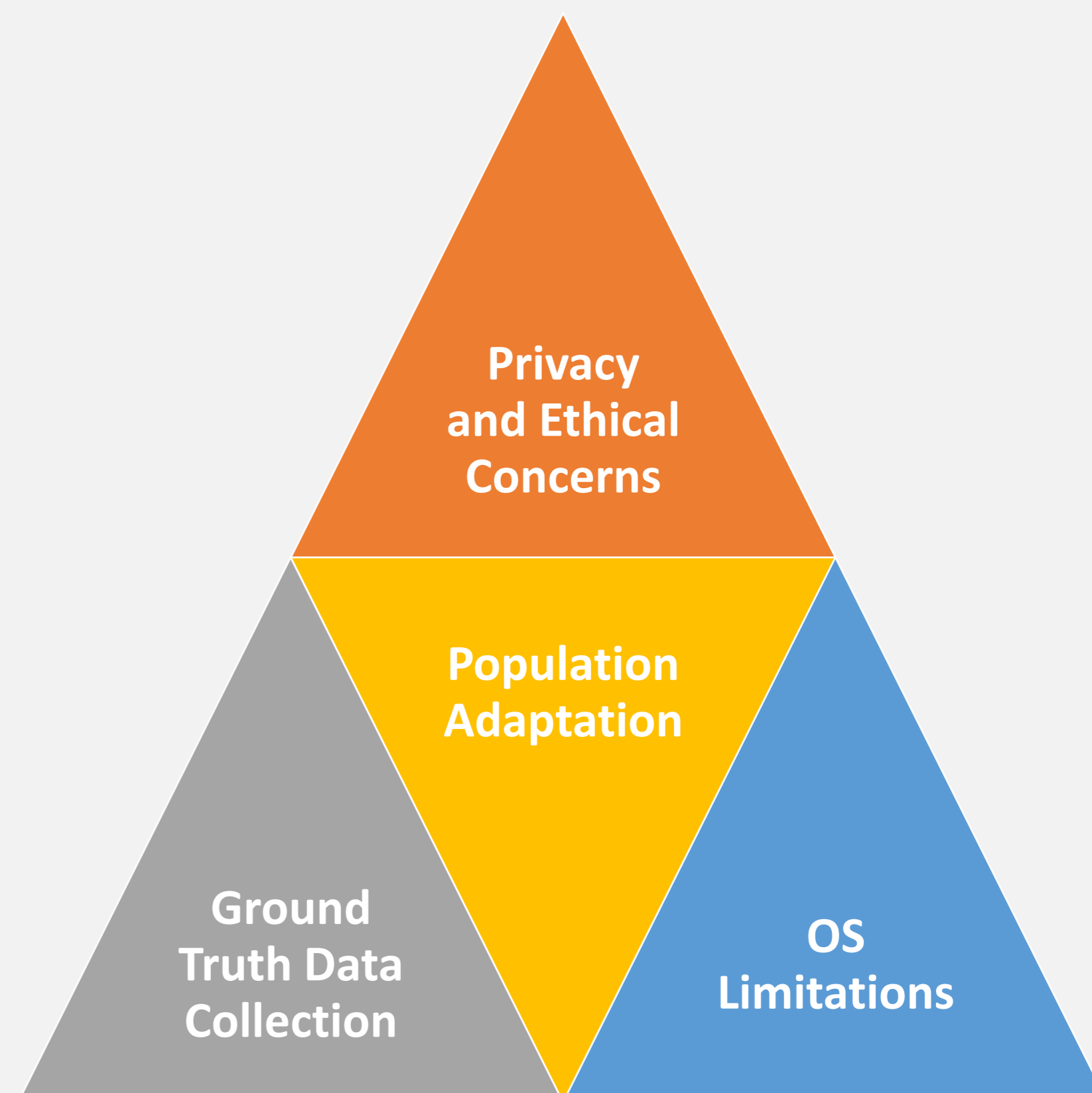
## METHOD

Technological advancements have expanded the role and capabilities of smartphones and wearable devices to monitor users activities and behaviours unobtrusively in real time. User behavioural patterns and contextual information collected through smartphones and wearables can be modelled into passive indicators or identification markers of user's health or wellbeing.



Jennifer Melcher et al. Evid Based Mental Health 2020;23:161-166

## CHALLENGES



## EXPECTED OUTCOMES

Loneliness detection system using passive data collection from mobile phones and wearable sensors.

Behavioural pattern identification associated with loneliness in a target age population.

Identification of behavioural features/indicators extracted through passively sensed data which are most correlated with loneliness.