

# SomnIA Briefing Paper 1

March 2009

## Introduction and Background to the SomnIA Project



### The People

#### Investigators (from left to right)

Professor Sara Arber, University of Surrey (Sociology), Principal Investigator

Professor Roger Orpwood, University of Bath (Engineering)

Professor Debra Skene, University of Surrey (Physiology)

Dr Ingrid Evers, University of Surrey (Health & Social Care)

Professor Kevin Morgan, Loughborough University (Psychology)

Professor David Armstrong, King's College London (Medicine)

#### Core Management

Susan Venn, University of Surrey

Dr Rebekah Luff, University of Surrey

#### Project Partners

Healthtalkonline (University of Oxford)

Help the Aged

Nottinghamshire Healthcare NHS Trust.

The Relatives & Residents Association

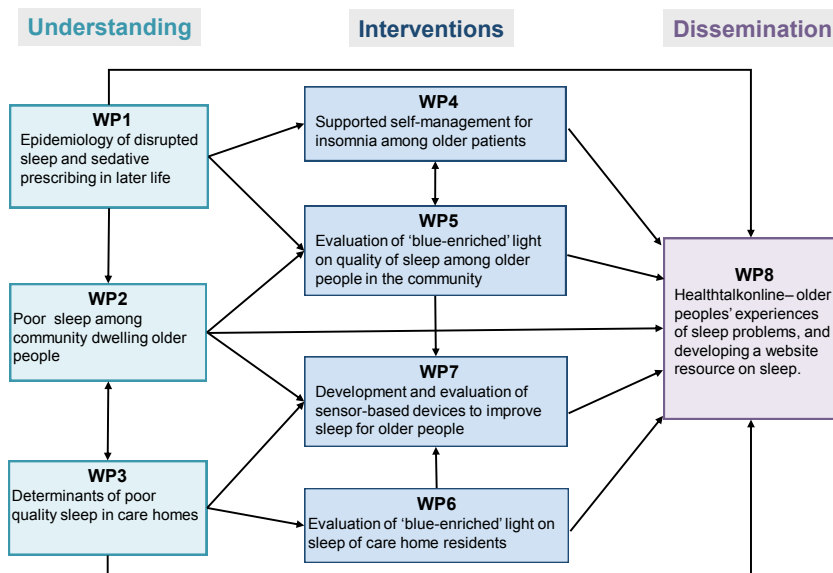
Philips Lighting

## Sleep & Ageing

Increasing age is associated with reduced quality sleep with older people being more likely to report poorer sleep. The specific causes of late-life sleep problems remain unclear. However, it is known that continued sleep disturbance negatively impacts on quality of life, inhibits recovery following illness and is an independent risk factor for

falls and depression. There are also concerns about the current treatment for poor sleep in older adults, with hypnotic drugs leading to increased confusion and falls. Effective non-pharmacological approaches to improve sleep both within the community and care homes are therefore being explored in the SomnIA project.

## SomnIA Workpackages



SomnIA is a 4 year research project which started in December 2006. The research involves 8 workpackages across 4 universities and 6 disciplines. SomnIA is funded by the New Dynamics of Ageing program\*.

## Methods

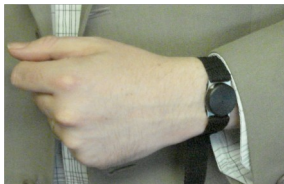
In order to meet the aims of the study, this multidisciplinary project involves a range of methods both in older people's own homes and within care homes including:

### PSQI

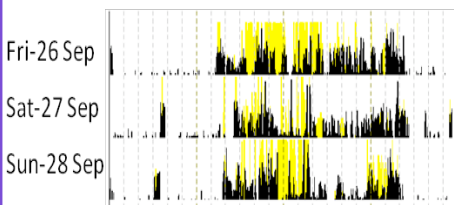
The Pittsburgh Sleep Quality Index (PSQI) is a self-report scale designed to assess poor sleep quality.

### Actigraphy

Small movement sensors (actiwatches) are worn on the wrist:



These show activity and rest patterns and light exposure over 24 hour periods:



### Interviews

To understand the issues surrounding sleep of older people both in care homes and in the community.



### 'Blue Enriched' light

The effectiveness of specially designed 'blue-enriched' lights are being tested.

\* The SomnIA Collaborative Research Project is funded by the Cross-Council New Dynamics of Ageing initiative, a multidisciplinary research programme supported by AHRC, BBSRC, EPSRC, ESRC and MRC. (Grant number RES-339-25-0009)

## Aims of SomnIA

- ⇒ To understand the meanings and determinants of poor quality sleep among older people in the community and in care homes - by assessing social, psychological and environmental factors, medication use and health status, and identifying potential solutions.
- ⇒ To develop a cost-effective approach to non-pharmacological self-management of insomnia among older people with chronic disease.
- ⇒ To develop and evaluate 'blue-enriched' light in improving sleep of older people in the community and in care homes.
- ⇒ To develop sensor-based products for frail older people at home and in care homes.
- ⇒ To disseminate to user groups including web-based, user-friendly, information and advice.

## Progress to Date

**W**orkpackage 2- To investigate poor sleep among community dwelling older people: Questionnaires have been distributed through ten GP practices across the Thames valley area. 1158 questionnaires were completed by older people and are currently being analysed.

61 older people with poor sleep participated in a 2 week study including an interview, completing 24 hour sleep and activity diaries and wearing an actiwatch (movement

sensor) to detect periods of rest and of activity.

**W**orkpackage 3- To understand the determinants of poor quality sleep in care homes: Data have been collected in 10 care homes in South East England.

140 residents fully participated by wearing actiwatches and researchers visited the residents for 14 days to complete daily sleep and activity diaries. A sample of 40 older people also took part in interviews. Observations covering the full 24 hours were undertaken as well as interviews with 30 care staff and home managers.

**D**ata collection is ongoing in the other SomnIA workpackages.

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