

AAL Joint Programme



HOME-based ICT solutions FOR the independent living
of people with DEMentia and their caregivers

D2.3 – User Handbook

Project acronym:	Home4Dem		
Project name:	HOME-based ICT solutions FOR the independent living of people with DEMentia and their caregivers		
Call:	AAL call 7 2014		
Contract no.:	AAL JP reference: AAL 2014-1-041		
Project duration:	01-09-2015 28-02-208 (30months)		
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	9	AUTOMA Srl	AUTOMA

Project co-funded by



Project Partners



Home4Dem

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Due date of deliverable: 31.12.2016

Actual submission date: 03.03.2017

Start date of project: 01.09.2015

Duration: 30 months

Organisation name of lead partner for this deliverable: Eichenberger Szenografie

Dissemination level		
PU	Public	
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	X
CO	Confidential, only for members of the consortium (including the Commission Services)	

History chart				
Issue	Date	Changed page(s)	Cause of change	Implemented by
V1	7.2.2017		First draft	- Ralph Eichenberger (EIS)
V2	26.2.2017	Added chapters	Feedback INRCA	Ralph Eichenberger (EIS)
V3	27.2.2017	Adapted chapters	Feedback INRCA/Karde	Ralph Eichenberger (EIS)
V4	03.03.2017	Minor adjustments	Feedback Karde	Ralph Eichenberger (EIS)

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Acronyms

HCI	Human Computer Interaction
SW	Software

Executive summary

This document describes the user handbook for the formal and informal caregiver application in the Home4Dem project until the final implementation of the system before end user trials.

The user handbook is intended to enable formal and informal caregiver to understand and use the mobile application and serves as a reference book to answer questions that may occur.

Taking into account that some aspects of the user interface might change during the development of the project and as a result of the field trials and due to the User Centered Design approach we will revise this document if needed.

1. Introduction

1.1 Scope of this document

This document explains the purpose and the functionalities of the care giver mobile application and sets its focus on guiding users through the interaction design. The background knowledge regarding the interface design is described in the deliverable 2.1.

2. General information

2.1 Operating system

The Home4Dem mobile application is available for Android (Play Store) and iPhone (App Store).

2.2 Operating system

The application is intended to run best on Android. It is planned to make the application also available for iOS and Windows phones.

2.3 Subscription plan

The recommended minimal subscription should include 3G and 1 Gbyte per month.

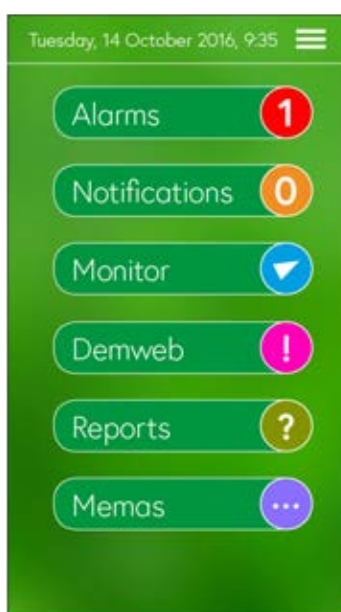
2.4 Versions

The Home4Dem mobile application is available in the following two versions:

1. IC version = informal care giver
2. FC version = formal care giver

2.5 Orientation

The Home4Dem mobile application is designed for portrait orientation only.



Portrait orientation



Landscape orientation

The functions «Demweb» and «Memas» open responsive websites, which are designed for portrait and landscape orientation.

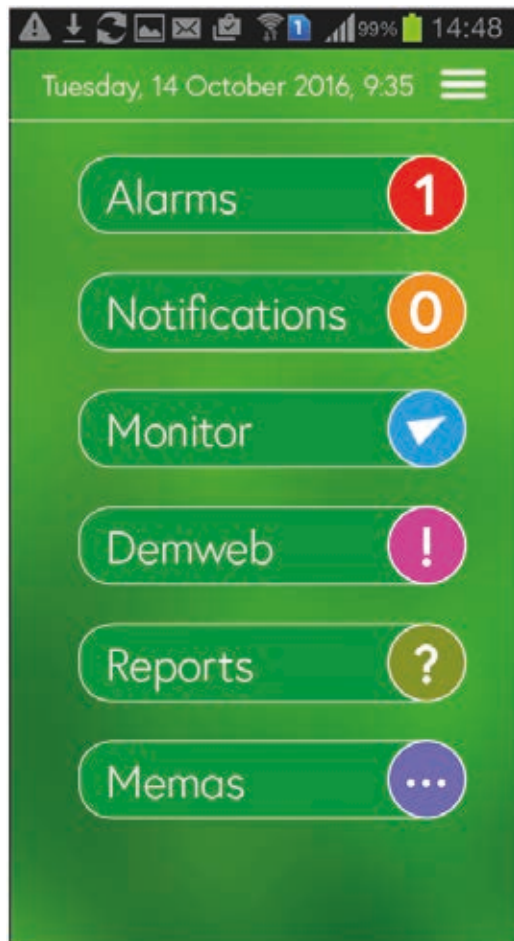
2.6 Interaction scheme

For easy access, in the Home4Dem mobile application on all screens «tap actions» only are implemented. The «back action» is implemented by:

Android: System back arrow

iPhone: Slide from left to right

2.7 Home screen



< Standard Top Bar

< Date, Time, Menu button (Hamburger)

< Alarm and Indicator number of alarms

< Notification and Indicator number of notifications

< Monitor and Indicator trend

< Demweb and Indicator News

< Reports and Indicator unanswered questionnaires

< Memas and Indicator trainings

3. Overview care giver application

3.1 Purpose

The application is specifically design for informal and formal care givers caring for People with Dementia. The implemented functionalities cover the following topics:

1. Safety, environmental and PwD state monitoring.
2. Entertainment, brain training, physical and leisure activities coaching.
3. Security from leaving the flat/apartement/house.
4. Opportunity of having clear information for understanding the disease and its management, thus improving the literacy related to Alzheimer dementia.
5. Monitoring disease evolution.

The mobile application is created to enabel the user groups to keep track of the current status of their care recipients (specific events and general development of the disease). Furthermore it allows the care givers to accept or reجت alarms and notifications, to monitor the progress of the disease, to retrieve important information about the disease, to answer regular questionnaires and to learn more about possible intervention and support actions.

Overall the mobile application is design to foster the reallationship between the care giver and the PwD they are responsible for. Due to the permanent update of information, the care givers should be able to stay at ease.

3.2 Functionalities

3.2.1 Menu

The menu offers the following three sections:

Installation

In this section care givers can be added, deleted and edited (e.g. name, sex, age, contact details, setting the message board).

Configuration

In this section the language is set, sensors can be activated and deactivated and the time span of standard nightly activities can be set.

Contact/Support

In this section the user can find the contact address for all support issues.

3.2.2 Alarms

The function allows to handle alarms and shows the alarm history.

3.2.3 Notifications

The function allows to handle notifications and shows the notification history.

3.2.4 Monitor

The function displays information to the history of the disease, sorted by date and/or by location.

3.2.5 Demweb

The function allows access to a dedicated website which provides extensive informations regarding dementia (e.g. facts about dementia, tips for daily life, memory trainings, community services, ethical aspects).

3.2.6 Reports

The function contains short questionnaires from the application provider regarding the usability of the system.

3.2.7 Memas

The function allows access to a dedicated website which offers a range of memory training sessions.

3.2.8 Patient selector (formal care givers only)

The function allows to switch between different patients within the application.

4. Handbook according to functionality

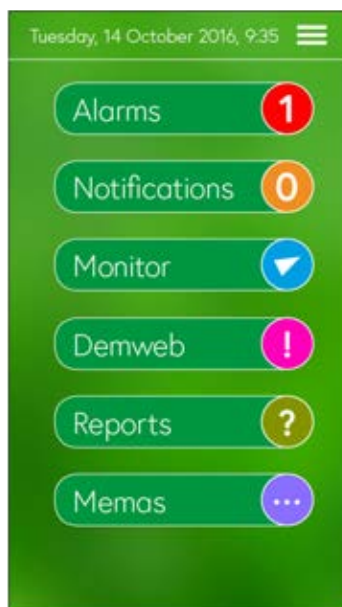
The Home4Dem caregiver's application displays useful information to the formal and informal caregiver from the Home4Dem sensor systems and offers indepth information about the disease. The app futhermore includes a report system and the memas application. The caregiver can use these data to decide upon necessary interventions, be it immediate help or just reminders to activate and entertain the person.

4.1 Start screens

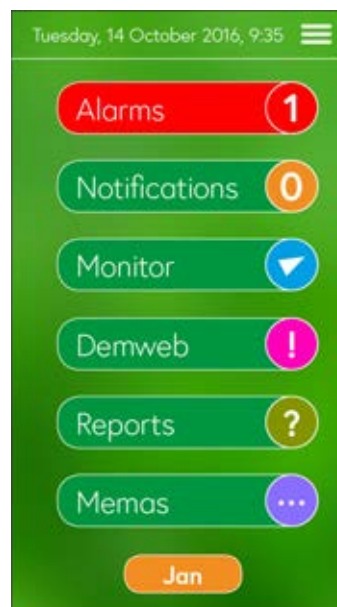
The applications is available in two versions:

1. For informal care givers
2. For formal care givers

The application for the formal care giver offers the option to handle multiple patients.



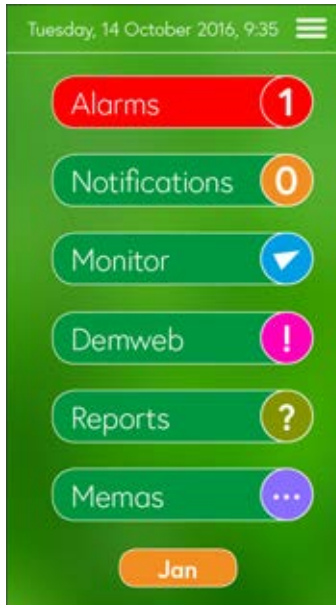
Start screen > infomal carer



Start screen > formal carer

4.2 Menu screens

The Caregiver can access all necessary parameters through the menu. In the menu, he also finds the contact and support address.



Home screen



Menu screen

4.2.1 Menu > Installation



Installation > Caregiver status

- > New Caregiver
- > Myself, status and edit option
- > Additional Caregivers



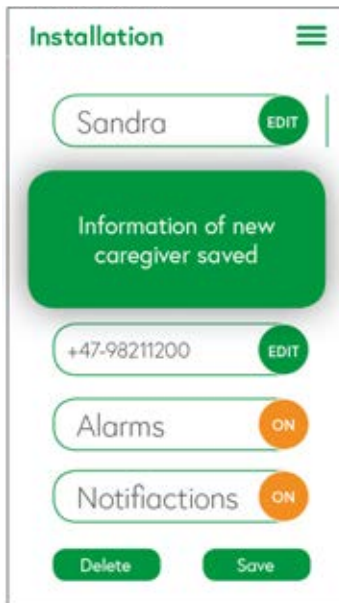
Setup Caregiver

- > Enter details Caregiver
- > Setting Alarm Messages
- > Setting Notifications Messages
- > Edit all inputs



Setup Alarm/Notification

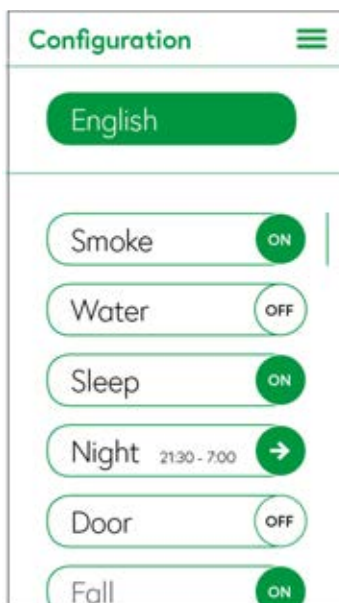
- > Enter email or mobile phone
- > Save or cancel inputs



Dialogue

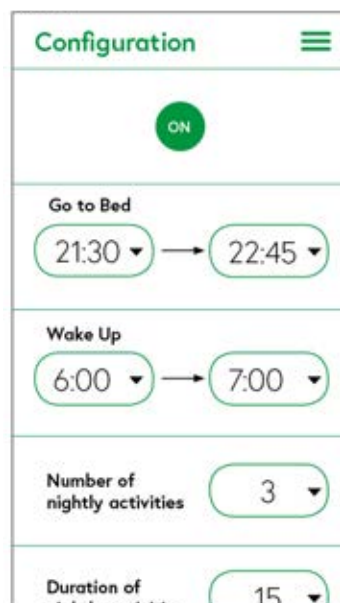
> Acknowledgement

4.2.2 Menu > Configuration



Configuration overview

- > Choose language
- > ON/OFF sensors
- > Set night activities

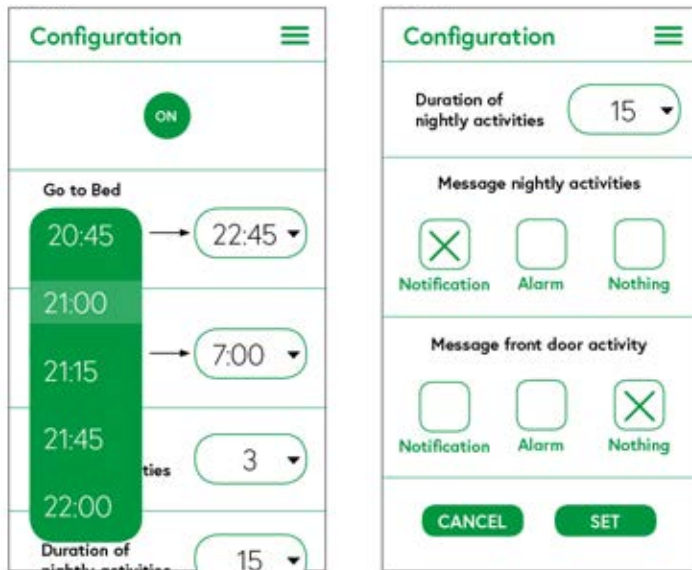


Set Night activities

- > General ON/OFF
- > Time GO TO BED
- > Time WAKE UP
- > Number of activity

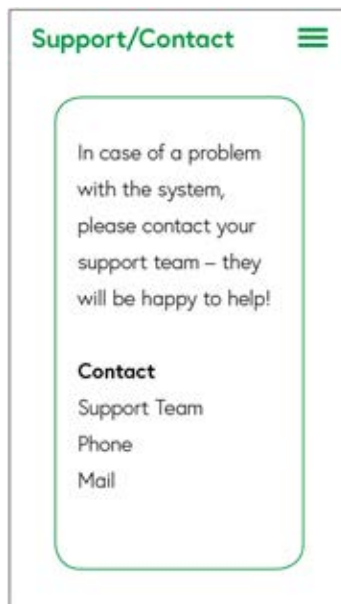


- > Average duration
- > Messages
- > Set and Cancel



Set nightly activities > set time GO TO BED

4.2.3 Menu > Support/Contact

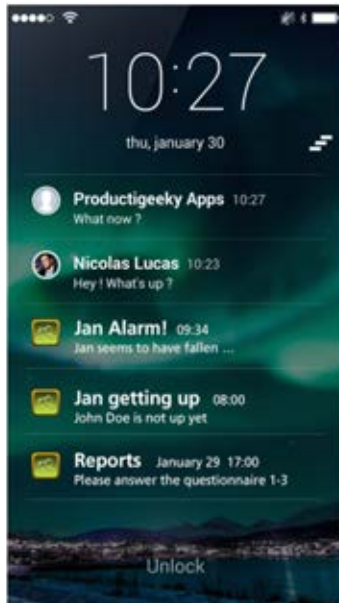


Support/Contact

> Address of contact and support person

4.3 Alarm screens

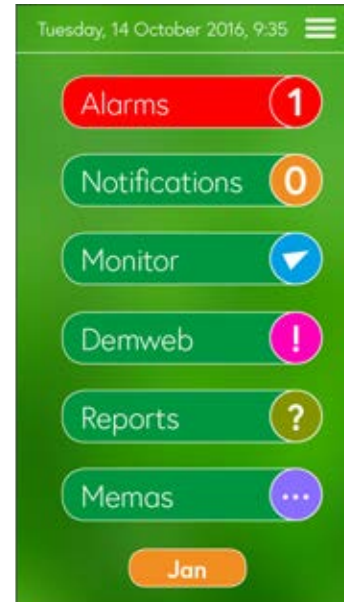
The caregiver is notified on the lock and home screen. Handling an alarm will be managed within the alarm function of the application.



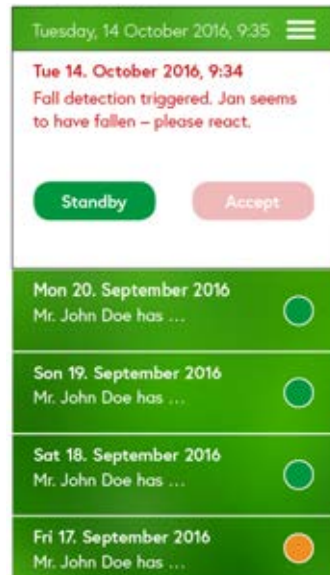
Notification on lock screen



Notification on home screen



App start screen (formal carer)



Alarms

- > Alarm accepted
- > List of old alarms
- > Indicator circle for accepted or rejected alarms



Alarms

- > Message from Thelma

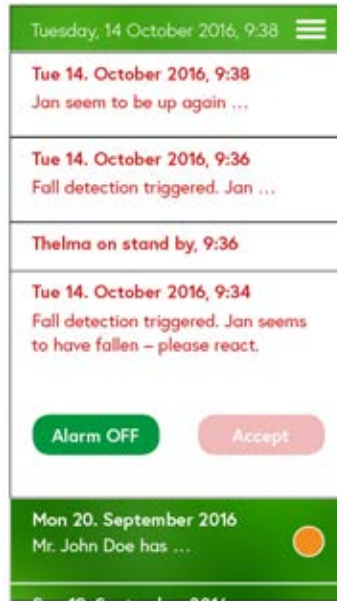


- > Message for Thelma from Doris, who has accepted the alarm.



Alarms

> Reminder message, if alarm has not been accepted



Alarms

> Message, if alarm has been canceled by the system



Alarms

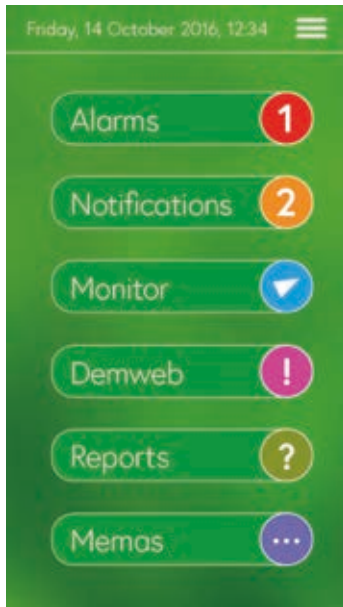
> Doris has quitted the alarm



> Thelma received message, after Doris quitted the alarm

4.4 Notification screens

The caregiver can access the notifications and open the notes for more details.



Notifications

> Indicator on home screen



Notifications

> Unread messages open

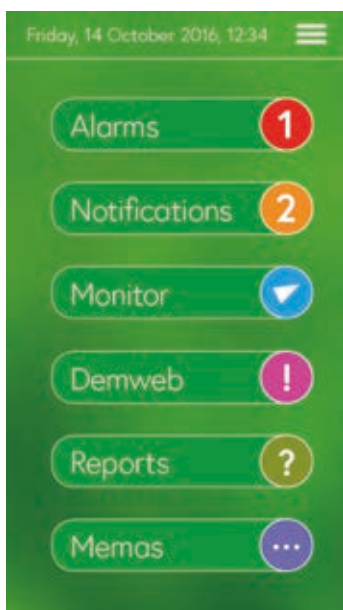


Notifications

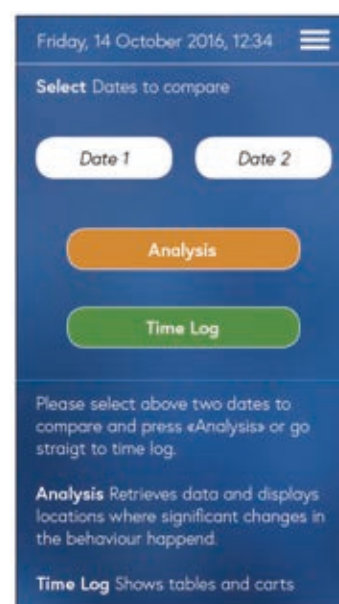
> Tap to see more details

4.5 Monitor screens

The caregiver can access the detailed sensor data

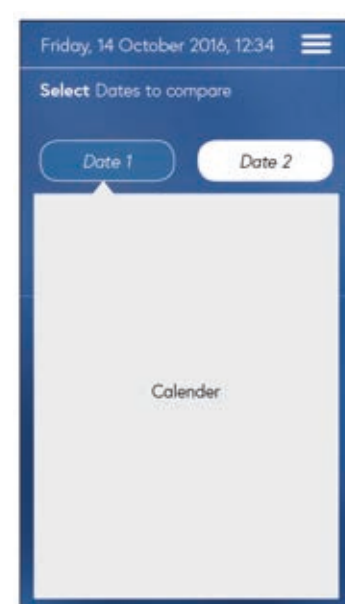


Monitor



Monitor

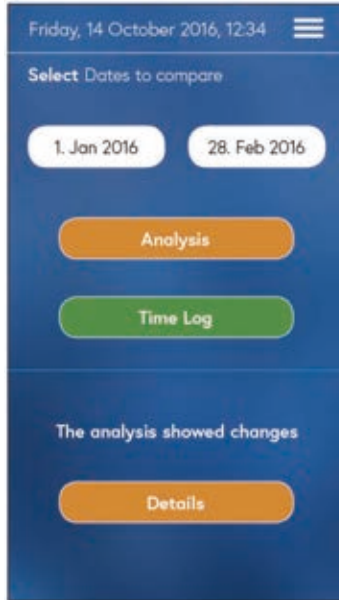
> Choose dates



Monitor

> Choose date

> Tap analysis or
go straight to sensor data



Monitor

> Tap Details



Monitor

> Comparison of two
time slots in all monitored
rooms



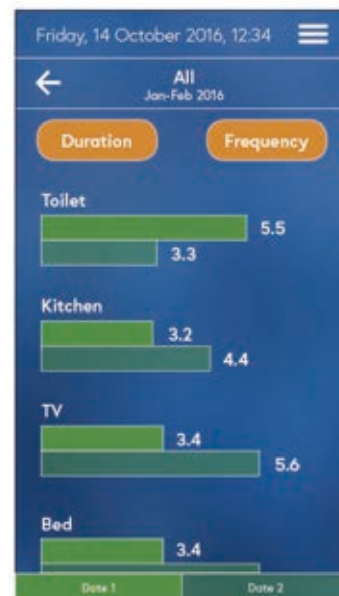
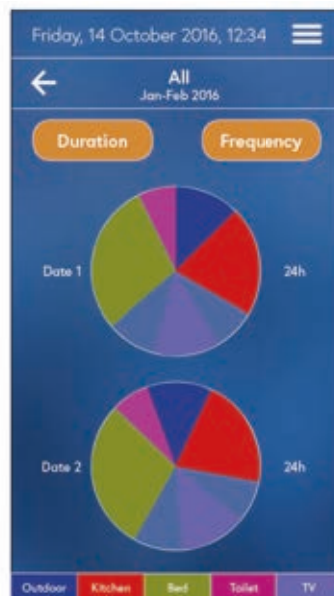
Monitor

> Comparison of two
time slots in all monitored
rooms by date

Location	Date 1		Date 2	
	Frequency (Number)	Duration (Hrs)	Frequency (Number)	Duration (Hrs)
Kitchen	5.2	60	4.0	225
Toilet	8.2	23	4.2	75
Bed	3.1	480	2.4	300
Outdoor	4.2	4800	1.9	600
TV	3.8	397	4.1	200

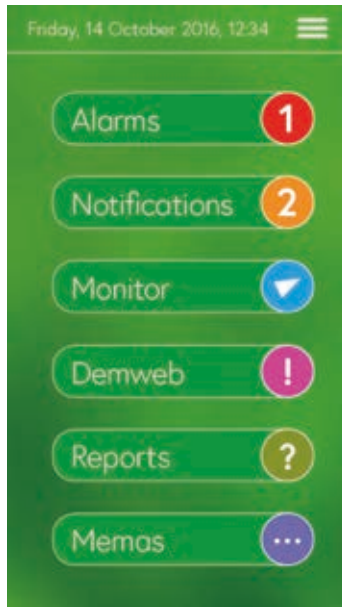
Monitor

> Three screens with possible display of table and chart of durations and frequencies



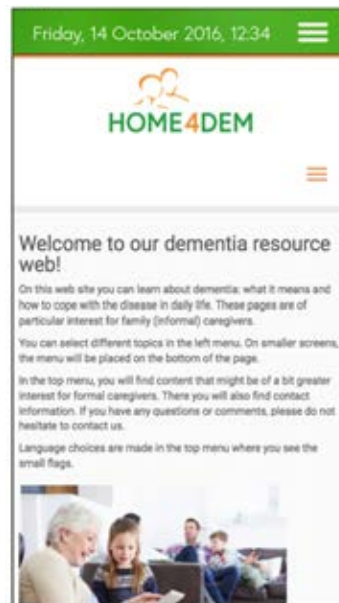
4.6 Demweb screens

The caregiver can access a dedicated website with information to the disease.



Demweb

> Tap demweb to access responsive website

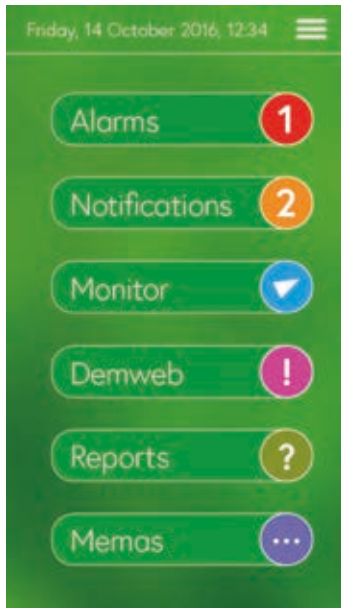


Demweb

> Navigate through website
> Return to app with system back

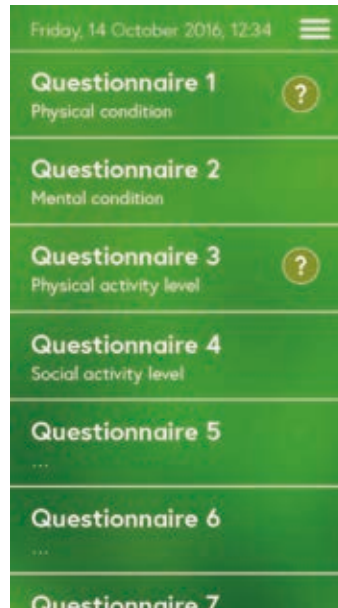
4.7 Reports screens

The caregiver can access questionnaires.



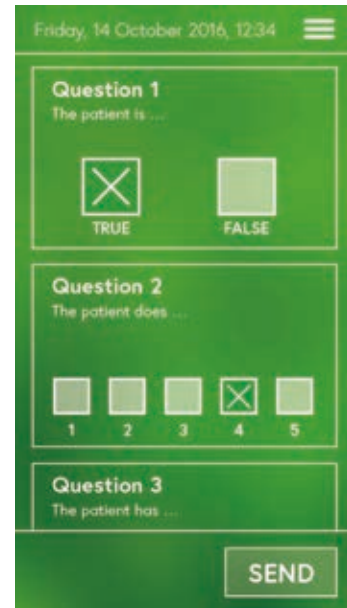
Reports

> Tap reports to access questionnaire



Reports

> Choose questionnaire
> Circel with question mark indicates not answered questionnaires

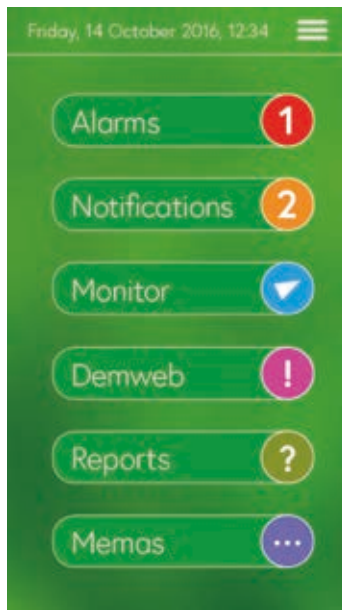


Reports

> Questionnaire

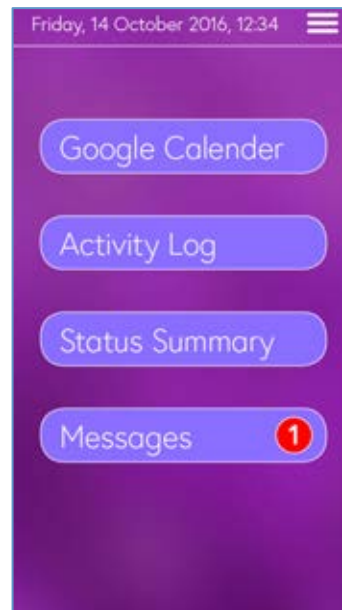
4.8 Memas screens

The caregiver can access memas.



Memas

> Tap Memas to access different options



Memas

- > Tap calender to access google calender
- > Tap activity log to access log data
- > Tap status summary to access summary of memas activities
- > Tap messages to access messages from Memas

5. Concluding remarks

The interaction design that has been presented in this document is subject to rapid user testing in all participating countries in January 2017. Based on the results of these tests, the design may be modified before the implementation of the final app for the field trials in 2017.

Taking into account that some aspects of the user interface might change during the development of the project and as a result of the field trials and due to the User Centered Design approach we will revise this document if needed.