



SILVER CHAIN

EVERY MINUTE. EVERY HOUR. EVERY DAY. WE CARE.

Is a Health and Wellness program  
based on Telehealth profitable in a  
workplace environment ?

A managerial approach

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- Telehealth
- Health and Wellness program
- Workplace environment
- Managerial approach

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- Silver Chain (biggest community healthcare provider in Western Australia ~2600 staff)
- Head office in Perth (~200 staff)
- Currently starting 2 research programs on Telehealth in Community
- Project for introducing the usage of Telehealth at the same time to own staff

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## Using Telehealth in a workplace environment for a Health and Wellness program

(adapted from Danna and Griffin, 1999)



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# Telehealth equipment



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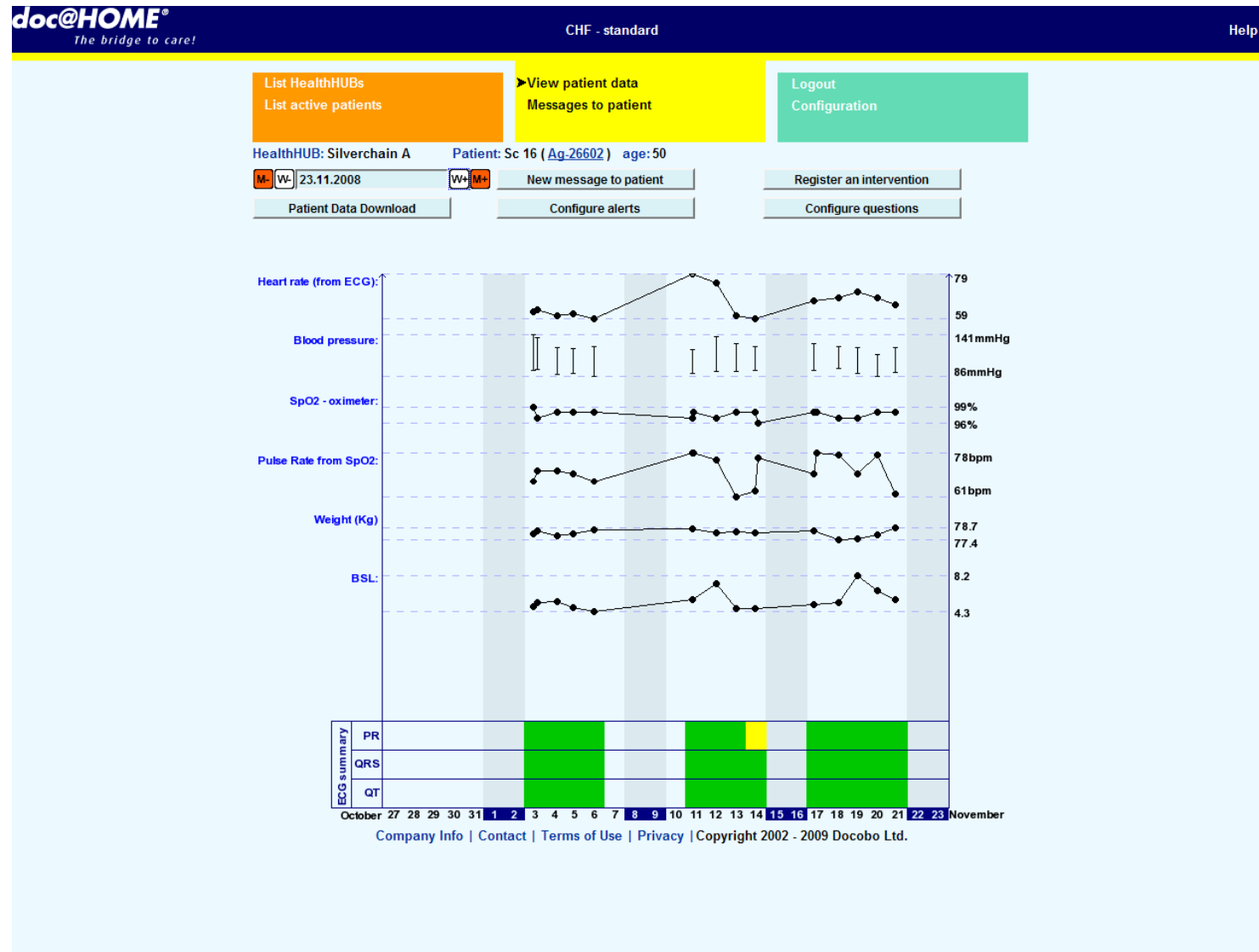
- Dedicated private room to record data on a “flextime” basis
  - ❖ ECG
  - ❖ Blood pressure
  - ❖ SpO2
  - ❖ Heart rate
  - ❖ Weight
  - ❖ Blood Sugar Level
- Secure access to private data
- First levels of advices from nurses

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# Example of staff data



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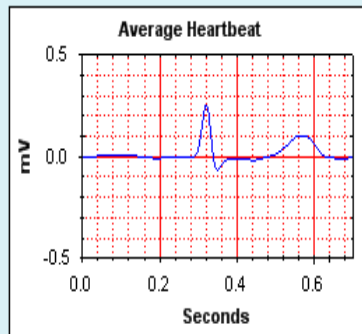
# Details of ECG



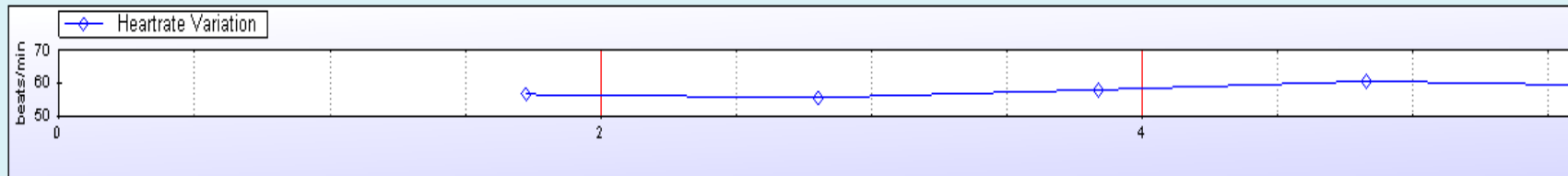
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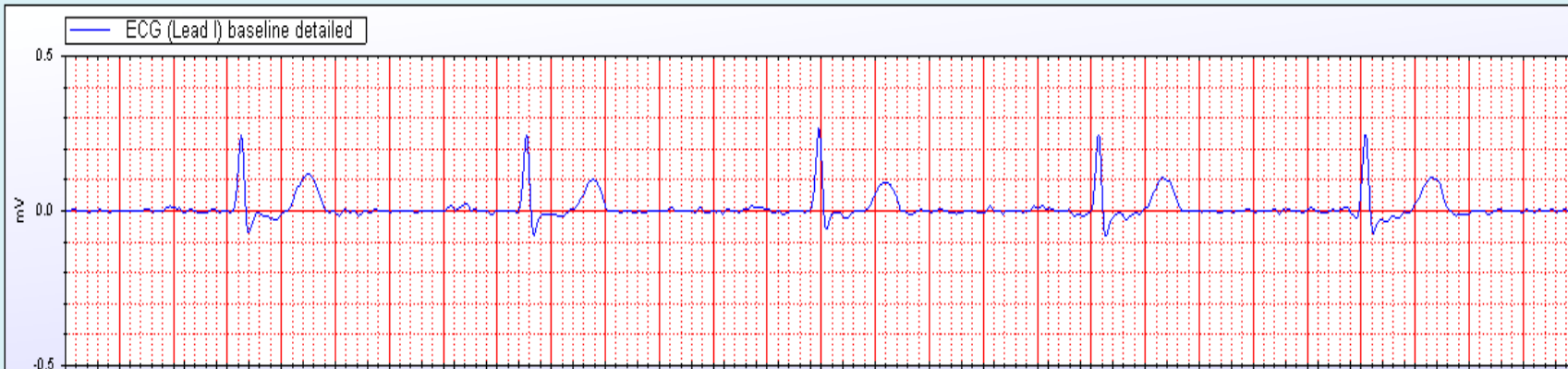
Recording time: 14.11.2008 10:40 (UTC+8)



|     |   |                 |            |   |   |             |
|-----|---|-----------------|------------|---|---|-------------|
| PR  | = | 0.2 seconds     | ( 5 mm )   | P | = | 10 $\mu$ V  |
| QRS | = | 0.08 seconds    | ( 2 mm )   | Q | = | 10 $\mu$ V  |
| QT  | = | 0.26 seconds    | ( 6.5 mm ) | R | = | 256 $\mu$ V |
| HR  | = | 59 beats/minute |            | S | = | -54 $\mu$ V |
|     |   |                 |            | T | = | 103 $\mu$ V |



Raw ECG | Baseline Corrected ECG | Baseline Corrected ECG x 2.5







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| <i>Variable</i> | <i>Question</i>  | <i>AVG</i> | <i>SD</i> |
|-----------------|--|------------|-----------|
| V1              | <b>Using the equipment on a regular basis was easy</b>                                 | 4.5        | 0.5       |
| V2              | <b>I got used to all the equipment quickly</b>   | 4.5        | 0.6       |
| V3              | <b>I trusted the accuracy of the equipment</b>   | 4.2        | 0.4       |
| V4              | <b>The self-management of data was motivating</b>                                      | 4.3        | 0.6       |
| V5              | <b>My overall opinion on Telehealth is positive as a result of this trial</b>          | 4.6        | 0.5       |
| V6              | <b>The trial helped me to know more about my health</b>                                | 4.5        | 0.5       |
| V7              | <b>Knowing the results has lead me to modify my habits</b>                             | 3.6        | 0.8       |
| V8              | <b>It would be worth having the equipment accessible at Silver Chain for all staff</b> | 4.5        | 0.6       |
| V9              | <b>I would continue to use the equipment if it was accessible all year</b>             | 4.4        | 0.8       |
| V10             | <b>Additional equipment would be useful</b>  | 3.7        | 0.8       |
| V11             | <b>Additional questions on general wellness would be useful</b>                        | 3.9        | 0.8       |

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|     | <i>V1</i> ← <i>Ease of use</i> |               |               |           |                                      |               |           |                |           |            |            |  |
|-----|--------------------------------|---------------|---------------|-----------|--------------------------------------|---------------|-----------|----------------|-----------|------------|------------|--|
| V1  | 1.000                          | <i>V2</i>     |               |           | <i>overall opinion on Telehealth</i> |               |           |                |           |            |            |  |
| V2  | <b>0.507*</b>                  | 1.000         | <i>V3</i>     |           |                                      |               |           |                |           |            |            |  |
| V3  | 0.346                          | 0.293         | 1.000         | <i>V4</i> |                                      |               |           |                |           |            |            |  |
| V4  | 0.359                          | -0.152        | 0.311         | 1.000     | <i>V5</i>                            |               |           |                |           |            |            |  |
| V5  | <b>0.734**</b>                 | 0.266         | 0.182         | 0.395     | 1.000                                | <i>V6</i>     |           |                |           |            |            |  |
| V6  | <b>0.503*</b>                  | <b>0.425*</b> | 0.058         | 0.126     | <b>0.601**</b>                       | 1.000         | <i>V7</i> |                |           |            |            |  |
| V7  | -0.189                         | -0.053        | -0.036        | -0.215    | 0.073                                | 0.362         | 1.000     | <i>V8</i>      |           |            |            |  |
| V8  | <b>0.424*</b>                  | 0.215         | 0.049         | 0.259     | <b>0.685**</b>                       | <b>0.503*</b> | 0.198     | 1.000          | <i>V9</i> |            |            |  |
| V9  | 0.311                          | 0.158         | -0.036        | 0.145     | <b>0.541*</b>                        | <b>0.506*</b> | 0.247     | <b>0.954**</b> | 1.000     | <i>V10</i> |            |  |
| V10 | -0.181                         | -0.255        | -0.383        | 0.054     | 0.032                                | -0.030        | -0.057    | 0.077          | 0.094     | 1.000      | <i>V11</i> |  |
| V11 | 0.062                          | 0.263         | <b>0.466*</b> | -0.078    | 0.215                                | 0.318         | 0.129     | 0.163          | 0.189     | 0.056      | 1.000      |  |

(\*\*)  $p < 0.01$ , (\*)  $p < 0.05$

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- Efficient combination of Telehealth with a Health and Wellness program in workplaces is well founded
- Ease of use is crucial
- Overall opinion on Telehealth and better knowledge about personal health appear as playing a major role in the underlying model
- Number of participants and duration of the Telehealth usage are contributing positively to the success of the program

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**Testing a model measuring the potential impact of Telehealth in workplaces and the workers performance (according criteria that need to be defined)**

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