

# Wood in hospital buildings

- do interior materials influence health and recovery?  
Testing hypothesis

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# Background:

several publications describing positive effects from natural materials

- **Psychology**
  - Large number of publications indicate that Northern people like wood
- **Psychiatry**
  - Shorter treatment times for patients with windows towards nature
    - \* (Ulrich 1984 and Ulrich et al. 1991)
- **Medical/ fysical**
  - No articles found in well known peer reviewed medical magazines
  - Lower heart rates with interior by Austrian pine. Medical experts involved (Med. Univ. Graz), but results not published. Why?

What kind of correlation do we see?

- between nature and health or between wood and health?
- cultural influence?



\*Ulrich, Roger. 'View through a Window May Influence Recovery'. Science 224.4647 (1984): 224–225. Print.

Ulrich, Roger S., Robert S. Simona, Barbara D. Losito, Evelyn Florito, Mark A. Miles, and Michael Zelson. 'Stress Recovery during Exposure to Natural and Urban Environments'. Journal of environmental psychology 11.3 (1991): 201–230. Print.

# Improved well- being

Wood2New: Final report spring 2017

”–It seems that we are positively affected by staying in environments with exposed wooden surfaces, among other things, several studies have shown that we experience less stress, which can thus have consequences for instance regarding building and arranging schools and workplaces.“ Tomas Nord, Linköping University.

# Key study by Nyrud et al:

## \*Do elements of nature have a healing effect? (2017)

The impact of wooden materials and landscape pictures in patient rooms

- Psychology study revealed positive effects on **FYSICAL** recovery
  - limited study of experienced pain and stress
  - wood interior showed shorter treatment times after orthopodic treatment
- Stunning and hard-to-understand results?
  - if confirmed could have great positive effects on reduced suffering and reduced healthcare costs
- Possibility that the results are affected by unknown factors
  - the study was not planned to study physical effects
  - researchers in medicine / orthopedics were not involved
- Results motivate a repeated study and hypothesss testing
  - to be made by medical expertise
  - larger scale; living lab / hospital wards
  - focus on both fysical and psychologivcal effects



\*6th Forum Wood Building Nordic Trondheim 17 Do elements of nature have a healing effect? The impact of wooden materials and landscape pictures in patient rooms| Anders Nyrud, Kristian Bysheim, Tina Bringslimark

# Hypothesis testing:

Do wood furnishings and traditionally coated interior surfaces in hospital wards lead to different response to medical treatment?

- Primary aims:
  - study influence of wooden furnishings and traditionally coated surfaces
  - register treatment, primarily knee- and hip- surgery
  - patients experiences of pain and stress
  - measure hemoglobin, pulse, blood pressure, etc.
  - register amount of pain killers and medicin used
  - register total treatment time and
- Study lead by Umeå University medical researchers
  - Lisbeth Jarvholm
  - Anna- Clara Rullander
- One orthopedic ward at Skellefteå lasarett to be renovated with half of the rooms made with wood and half painted
- Initial phase of study finaced by TräCentrum Norr (TCN) and Swedish Wood.



# Consortium

- Västerbottens läns landsting VLL
- Umeå University UMU
- Norges Biovitenskapelige Universitet NMBU
- Luleå Technical University LTU
  
- Swedish Wood
  
- Skellefteå Snickericentral
- Collage Arkitekter AB

# Expand consortium and project

- Additional funding from Region Västerbotten?
- Resume study at St. Olavs hospital?
- Coordinate and/or merge with proposed study on psychiatric ward in Borås, Västergötland?