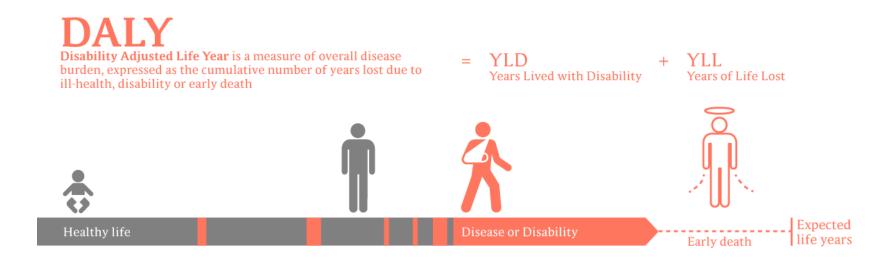
# Burden of skin disease and risk factors: where next?



Krister Jarbrink, BSc., MSc., PhD
Senior Research Fellow in Health Economics
Health Services and Outcomes Research Programme,
LKCMedicine, NTU

### Disability-adjusted life years (DALYs)



DALYs = The sum of the Years of Life Lost (YLL) + The Years Lost due to Disability (YLD)

#### where:

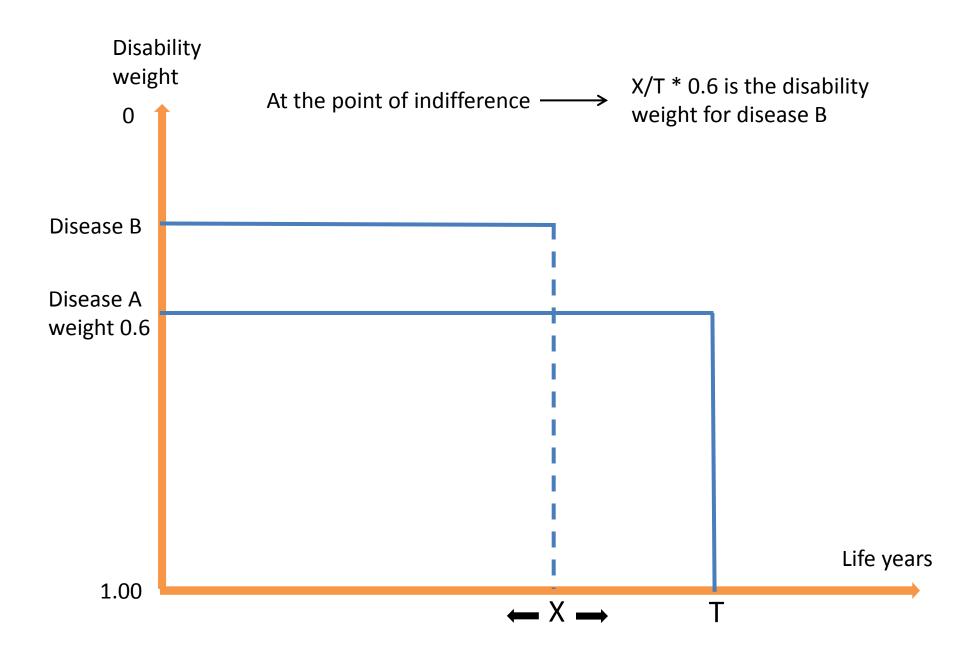
YLL = number of deaths x standard life expectancy at age of death in years and

YLD = number of prevalent cases x disability weight

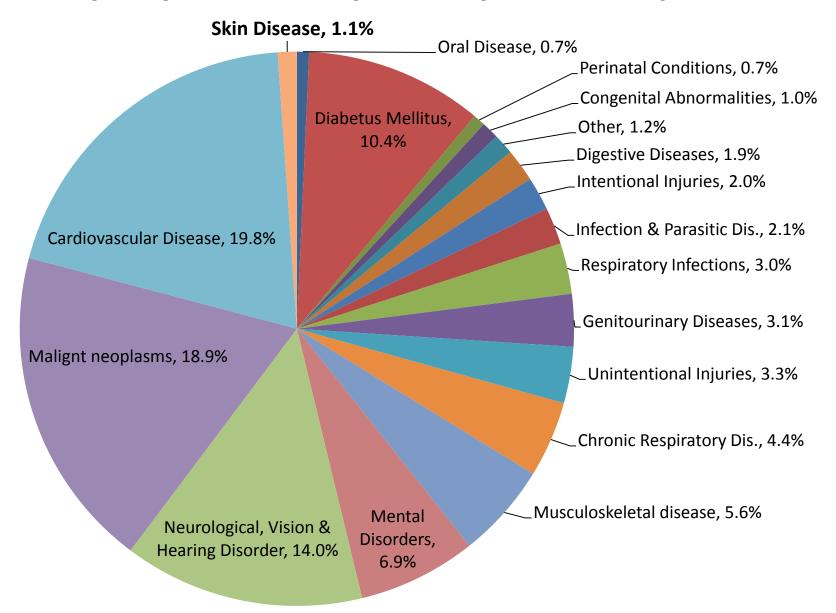
### **DALYs versus QALYs**

Disability weighting	Utility	Health state		
0	1.00	Perfect	DALYs	
0.33	0.67	Disease	QALYs	
1.00	0	Death		Life years

### Time-trade off



### Disability-adjusted life years by cause, S'pore 2010\*



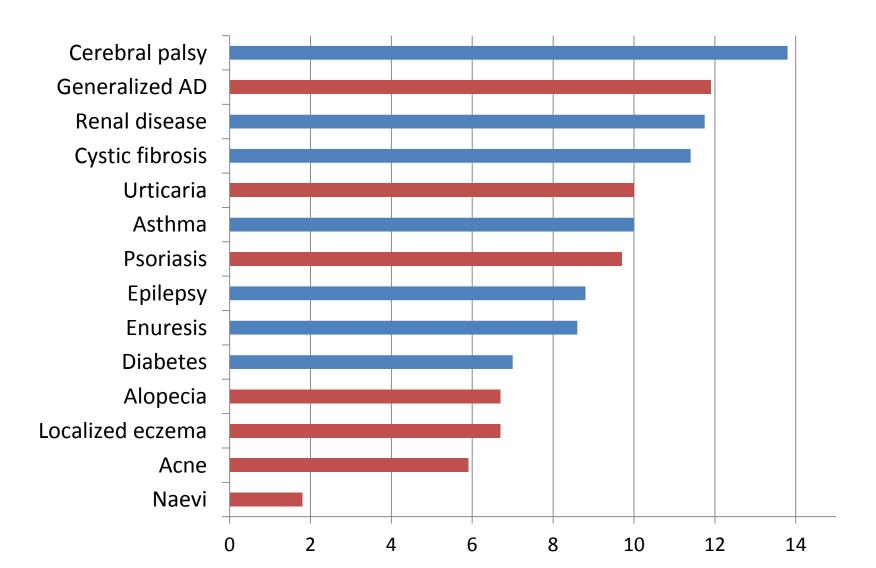
<sup>\*)</sup> Singapore Burden of Disease Study 2010, Epidemiology & Disease Control Division, Ministry of Health, Singapore

## What disability weights should capture – examples of PRO:s in studies on skin diseases

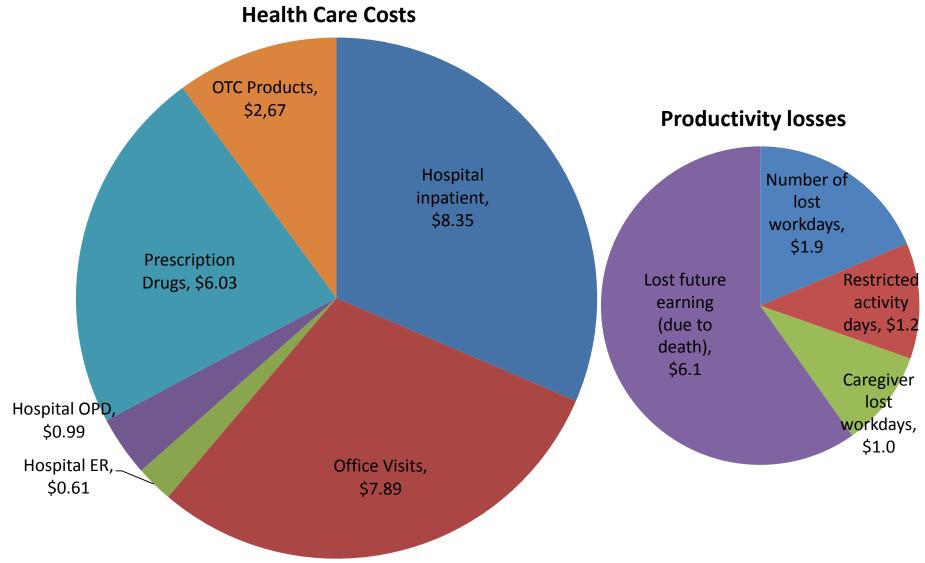


### Children's Life Quality Index (CLQI)

Scores for 379 with chronic skin disease and 161 with other chronic disease (Beattie & Lewis-Jones, 2006)



### Cost of Skin Disease, US 2004, \$ billions



The Burden of Skin Diseases 2005. Prepared for: The Society for Investigative Dermatology And The American Academy of Dermatology Association. Prepared by: The Lewin Group, Inc.

### Alternatives of describing a disease burden

Alt.	Costs	Outcomes measure	Advantage / Disadvantage
1.	_	DALY's	Different diseases can easily be compared / Tied to a certain preference
2.	Direct, indirect and intangible costs	-	Different diseases can easily be compared / Tied to a certain preference
3.	Direct and indirect costs	Impact on health-related quality of life	Transparent and not tied to a certain preference / Difficult to compare

**Preferred choice** 

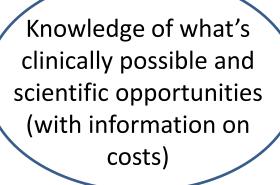
### Where next?

We would be able to make decisions on the choice of therapy from a more holistic perspective that include cost-consequences for a societal perspective and the quality of life of patients and their careers.

- Promote a patient-centered care and get more informed therapy decisions
- Support the development of guidelines
- A better optimization of resources from a broader perspective
- Useful tool prioritization and planning
- An economic framework for program evaluation



### Recipe for a happy marriage



Information on disease burden with the attached costs

