Background: Management of skin cancer entails a high burden on the health care system. Internationally, the incidence of both melanoma and non-melanoma skin cancer (MSC and NMSC) is increasing. MSC is associated with considerable morbidity and mortality. NMSC barely affects mortality, but brings about enormous costs for the health care system and thus is expected to exert a high impact on the health care budget. This study analysed the current and anticipated societal cost of MSC and NMSC in Belgium.

Methods: The societal burden of MSC and NMSC was calculated using a prevalence- as well as incidence-based bottom-up approach. Questionnaires about medical consumption and non-medical costs such as transport and absenteeism were addressed to Belgian skin cancer patients via their dermatologists, oncologists and general practitioners. Official unit costs of medical procedures were applied and costs were extrapolated based on national epidemiologic data (prevalence-based approach). To estimate the future burden, a Markov transitional model was developed simulating natural disease progression up to 2030 (incidence-based approach). Future trends were simulated based on changing incidence and mortality of skin cancer, as measured by published research in the Netherlands. These trends include aging of the population, increased sun exposure due to outdoor leisure activities and holidays, increased exposure to tanning beds and increased awareness of skin cancer. All calculations are performed age- and gender-specific and costs will be reported separately for the patient and the health care payer.

Results: In total, 300 patients were recruited. Univariate analyses are currently being performed to calculate the total direct cost for diagnosis and treatment, and for follow-up and the total indirect costs per type of skin cancer. Results will be expressed per skin cancer patient and for the total skin cancer population in Belgium.

Conclusions: The conclusion of our cost of illness study will include interpretation of the results and policy recommendations.
be challenging for policy makers, since the budget has to compete with other major health problems. Some studies have calculated the cost-effectiveness of prevention of MSC, nonetheless very few studies have been conducted concerning the cost-effectiveness of prevention of NMSC, although it has been shown that NMSC leads to higher health care costs than MSC due to the higher prevalence. Skin cancer can be prevented by means of sun-protective behaviour or it can be detected at an early stage by means of screening, thereby intervening in the course of natural progression. This study analysed the cost-effectiveness of primary and secondary prevention of skin cancer, in order to inform policy decision makers.

Methods
Two Markov models with a time horizon of 20 years were developed. The first model compares a primary prevention programme to no prevention, assuming an effect on the incidence of skin cancer, based on literature. The second model compares a situation with total body screening to a situation without screening. Over a period of 20 years, assuming a societal perspective, costs and quality-adjusted life-years (QALYs) with and without the primary prevention campaign or screening programme are calculated in order to determine the incremental cost-effectiveness ratio (ICER) of both types of prevention. The models contain input data from national registries and published, and intervention-related data. One-way and probabilistic sensitivity analyses will be performed to take into account uncertainty in the model parameters. Scenario analysis will estimate the effect of organising the interventions only once or once every 5 years.

Results
The primary outcome is the incremental cost-effectiveness ratio, calculated from the difference in costs and in quality-adjusted life-years (QALY) over a period of 20 years between prevention (primary or secondary) and no prevention. The secondary outcome is the reduction in skin cancer mortality over a period of 20 years, due to the interventions.

Conclusions
The conclusion will include interpretation of the results and recommendations for future research and policy decisions.