Introduction
There is high variability in dialysis service patterns between countries, concerning the share of hemodialysis (HD) or peritoneal dialysis (PD) for end-stage renal disease (ESRD) patients.
In Switzerland the share of PD is 7% and relatively low, compared to other developed countries.
Health Services Research may contribute to a better understanding of the current pattern of dialysis services in Switzerland combining up-to-date evidence of effectiveness with routine Swiss health economic data.

Methods and Results
We applied a stepwise approach:
First, we performed a review of current evidence of effectiveness for HD and PD (data sources: Medline, Cochrane Library, international registries; from 2000 to FEB 2013; included study designs: interventional and observational studies; outcome: mortality; quality of life).
Of 962 retrieved references, 52 were included for analysis. Two reviewers screened references and extracted data. Patient benefits showed to be similar for HD and PD with respect to general health related quality of life (Figure 1) and mortality. Some differences in disease specific quality of life, which might be of clinically relevant magnitude (more often in favour of PD and less often in favour of HD), showed no consistent pattern.

Second, we performed a cost comparison study based on routine claims data of a large Swiss health insurer.
The identification of ESRD-patients, treated in 2008 and 2009, was determined by data retrieved from a central data pool (SVK). Descriptive analyses and statistical models were applied to measure the effect of dialysis modalities on costs of 462 HD- and 38 PD-patients (about 14% of all Swiss dialysis patients).
We found significant cost differences between dialysis modalities (Figure 2). Annual total median costs of HD were nearly 18% higher than for PD-patients (HD: CHF 103’393; PD CHF 87’793). The estimated effect of the treatment method on total costs amounts to CHF 13’179 (p=0.03) less for PD-treated patients per year.

Conclusion
Our study shows, that PD is an attractive option compared to HD in Switzerland given lower total annual costs at similar patient benefits.
As a third step, economic incentives and barriers for PD in Switzerland should be discussed to create a supportive framework for Swiss dialysis services to be effective, appropriate and more efficient ("WZW").

Competing interests
The authors declare that they have no competing interests.
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