

Background

Insufficient nursing staff levels have been shown to have a negative impact on the quality of care, increasing patient morbidity and mortality. In order to address the issue of how Switzerland can avail itself of sufficient nursing staff in the medium-term and despite ageing of the population, it is necessary to have information on certain key factors.

How many people with training in nursing stay in the health sector throughout their working life and why do other nursing staff leave their original career field? The nurses at work study aimed to discover the reasons why nursing staff remain in or leave their profession or more specifically, the health sector. Its goal is to find ways of retaining more nursing staff in the profession.

Despite tremendous efforts, it proved extremely difficult to get in touch with men and women who had left the healthcare system: today we can only conclude that this group is under-represented in the study. This conclusion is backed up by data from the Federal Statistical Office's Structural Survey).

Nevertheless, the findings of nurses at work are very useful as qualitative research and should be made available to the public and in particular to authorities in charge of staff planning. The results pinpoint which aspects of the nursing profession should be taken into account when making endeavours to retain as many nurses as possible in the health sector.

Monika Diebold
Head of Obsan

The “nurses at work” study: Investigating nurses’ career paths over the last 40 years in Switzerland

Highlights

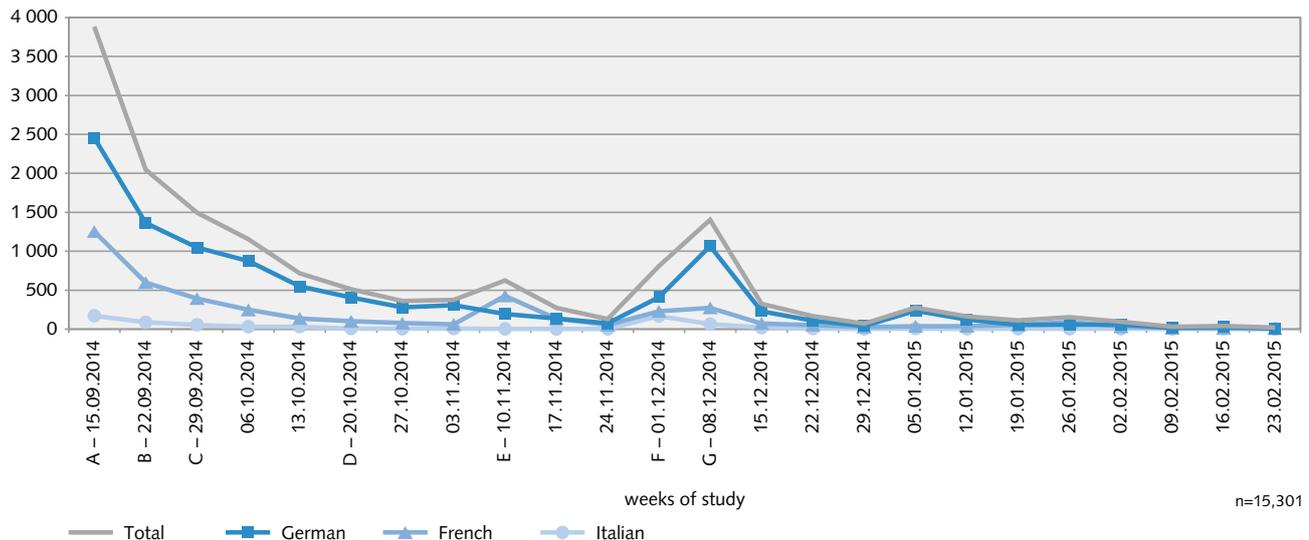
- 15,301 nurses participated in the nurses at work study, making it the largest national study to date on nursing career paths.
- 11,644 of them held a Swiss nursing diploma, representing 12% of the total Swiss nursing population registered since 1970.
- At the time of the study, most participants (94%) were working in the health sector, 3% in another sector and 3.3% did not have paid work.
- 88% of nurses working in the health sector were globally satisfied with their current job, although work-family conflict, salary, burnout, workload and participation in decisions caused problems.
- The strongest reasons for leaving the health sector were “too little identification with the profession”, “wanted more time for personal life”, “eager to discover a new profession”, “lack of support from hierarchy” and “to start a new course of education”.
- Overall, participants spent 70% of their potential career time in the health sector, which offers some margin for improving retention.

A context of enduring nursing shortage

The current worldwide nursing shortage is recognised by all stakeholders. Major determinants for the number of nurses available in the health system are training, recruitment, and retention. While 2500 nursing diplomas are delivered in Swiss nursing schools every year, this only covers half of the needs at national level. As a result, Switzerland relies heavily on foreign personnel despite having adhered to the WHO Global Code of Practice on the International Recruitment of Health Personnel. The scarcity of data – particularly about retention of the workforce – makes it difficult to manage nursing resources adequately. *The nurses at work study* was launched in 2013 to inform Swiss policy- and decision-makers in the fields of Public Health and nursing on the reasons why some nurses working in our country leave nursing before reaching retirement age.

nurses at work

einmal Pflege, immer Pflege?
infirmière un jour, infirmière toujours?
infermiera... per tutta la vita?



- A: Press conference followed by mailings to 26 cantonal Public Health Departments, 12,591 ASI/SBK members (9948 in German, 2347 in French and 296 in Italian), 47 national nursing or health associations, and 13 strategic focal points in Ticino
- B: 321 public hospitals, 96 independent nurses in Valais, 507 nurses who participated in the 2012 *nurses at work* pilot study, 363 nurses who pre-registered on our website, and 1424 Spitex addresses (home care)
- C: 82 nursing schools and 32 directors of nursing schools
- D: 302 private clinics
- E: 458 cantonal nursing/health associations
- F-G: 425 specialised institutions, 364 other institutions, reminder to groups A to F (except cantonal Public Health Departments) + 1389 individual nursing homes + 19 school nurses from a list received afterwards

Source: nurses at work study

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The aim of the study was to identify and describe the career paths of Swiss nursing graduates over the last 40 years and to identify institutional and personal factors associated with retention in the health sector and the reasons for staying in or leaving the job.

The challenge of reaching nurses and former nurses

As there is no national nurse workforce registry in Switzerland, individual email lists had to be compiled using data from a variety of sources such as Public Health Departments, employers, national/cantonal nursing organisations, nursing schools, the internet, respondents to the nurses at work pilot study in 2012, and the Swiss nurses' association ASI/SBK. A communication strategy was implemented which included a press conference to launch the study with the contribution of politicians interested in the study results, and participation in various fairs and events (Fig. 1). Files from the Swiss Red Cross on diplomas registered since 1970 were used as a basis to compute participation rates.

The data collection

A web-based questionnaire was made available on www.nurses-at-work.com between 15 September, 2014 and 28 February, 2015, in German, French and Italian.

Every period of employment or unpaid work – defined as episode in the study – was investigated, using a 28-item questionnaire for nurses who had left a job at any given point in their career and a 13-item questionnaire for nurses who stayed. The current job episode and the one preceding voluntary leaving the health sector were further scrutinised by means of an extended questionnaire (51 validated items summarised in 25 scores, Fig. 2).

Effect of communication activities on the participation rate

Many responses were received during the first weeks of the data collection, following the press conference that was organised on 15 September 2014 in connection with the study launch and a number of interventions in the print press and on the radio (Fig. 1). In addition, the *nurses at work* team participated in various fairs and events with a dedicated booth, and merchandising material with the study logo was distributed on these occasions.

This series of public relations actions started at the ASI/SBK congress in Basel in June 2014, and continued – concomitantly with targeted e-mailings – at the National Economic Fair (Comptoir Suisse) in Lausanne (A & B, Fig. 2), at ZüSpa-GsundZüri (B) and IFAS (D) fairs in Zurich, then at Planète Santé in Lausanne (E).

The topic of nursing shortage became much more prevalent in the various media after the launch of *nurses at work*, i.e. 10–50 monthly occurrences vs. only 0 to 5 articles in the year preceding the study (Source: Argus). The study remained for five months in the press thereafter. *nurses at work* may have increased the interest in this topic.

Study population

The questionnaire was completed by 15,301 nurses. A total of 11,644 nurses trained in Switzerland participated in the nurses at work study, representing 11.7% of all 99,778 nurses having obtained a Swiss nursing diploma since 1970. This report focuses on this population. However, another 3657 nurses with a foreign diploma currently working in Switzerland also completed the questionnaire.

T1 Characteristics of the Nurses at Work study participants with a Swiss nursing diploma

	n	%
<i>Linguistic region of residence</i>		
German	8 401	72.1
French	2 667	22.9
Italian	459	3.9
Outside Switzerland	117	1.0
<i>Gender</i>		
Female	5 161	89.5
Male	603	10.5
Not available	5 880	
<i>Number of children</i>		
0	4 028	47.4
1	937	11.0
2+	3 538	41.6
Not available	3 141	
<i>Nationality</i>		
Swiss	5 095	93.4
European	288	5.3
Outside Europe	73	1.3
Not available	6 188	
<i>Graduation cohorts</i>		
1970–1974	265	2.3
1975–1979	852	7.4
1980–1984	1 216	10.5
1985–1989	1 302	11.2
1990–1994	1 271	11.0
1995–1999	1 158	10.0
2000–2004	1 677	14.5
2005–2009	1 733	15.0
2010–2014	2 111	18.2
Not available	59	
<i>Type of diploma</i>		
Specialised school- apprenticeship (ES)	2 082	17.9
Bachelor of Science in nursing (BSN) – HES	1 002	8.6
BSN – University	32	0.3
General Nursing, Psychiatry, Maternal and Child Health, Integrated care, Community/home care (ISC)	5 120	44.1
Level I (without level II)	603	5.2
Level II	2 019	17.4
Other	743	6.4
Not available	43	
<i>Current employment sector (n=11'311)</i>		
In the health sector*	10 601	93.7
Regional/cantonal hospital/clinic, incl. psychiatric	3 939	34.8
University hospital/clinic, incl. psychiatric	1 881	16.6
Nursing homes (e.g. for older people, disabled, psychosocial treatments, etc.)	1 308	11.6
Home care (SPITEX), incl. independent practice	1 040	9.2
Private clinic, incl. psychiatric	750	6.6
Rehabilitation clinic	294	2.6
Nursing/health teaching institution (ex. HES, ES, Red Cross)	259	2.3
Community health centre (ambulatory)	113	1.0
Other	1 017	9.0
Outside the health sector	335	3.0
Human health, social programmes	157	1.4
Teaching	41	0.4
Other tertiary sector services	31	0.3
Public administration	23	0.2
Other	83	0.7
Without paid work	375	3.3
In the household	198	1.8
Illness/disability insurance	28	0.2
In training	25	0.2
Travelling	16	0.1
Unemployed	18	0.2
Other	90	0.8

Source: nurses at work study

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n=11,644

* Employment in the "health sector" reflects workplaces from an organisational point of view regardless of nurse's job positions (e.g. staff nurse, administrator).

The participation rate was lowest among nurses who graduated between 1970 and 1974 (2.3%), and increased to 18.2% for the youngest nurses (2010–2014 diplomas).

The distribution of respondents across linguistic regions was similar to the general population, i.e. 70% German-speaking, 26% French-speaking and 4% Italian-speaking. The mean age was 41.1 years (\pm SD 11.3); younger nurses who graduated between 2010–2014 were over-represented, possibly because they are more regular web-users and because of more intense marketing efforts towards institutions employing more young nurses. Men represented 10.5% of respondents (Table 1). Among nurses with a Swiss diploma, 6.6% were of foreign nationality.

A slightly larger share of Italian-speaking nurses worked in the health sector, and in regional/cantonal hospitals since there is no University hospital in Ticino. About 45% of German-speaking respondents worked in hospitals, vs. 57% in the French-speaking region and 62% in Ticino. Slightly fewer nurses were active in home care/Spitex in the French-speaking region (6.9% vs. 9.9% in the German-speaking region and 9.3% in Ticino), whereas more German-speaking nurses worked in private clinics (8.1% vs. 2.5% in the French-speaking region and 4.7% in Ticino).

Among participating nurses who graduated in Switzerland over the last 40 years, 93.7% were currently working in the health sector, 3.0% outside health, and 3.3% had no paid work. Given the variety of positions held by nurses nowadays beyond the classical role at the patient's bedside, we chose a wider definition of nursing than some international studies by using the term "health sector".

This distribution by employment sectors did not vary by linguistic region. The majority of nurses without paid work were active in the household, but others suffered from an illness or a disability, or were currently unemployed, a paradox in times of shortage (Table 1).

Satisfaction with current job

Overall, participating nurses were satisfied with their current job, whether working within (88%) or outside (85%) the health sector at the time of the survey.

Autonomy empowerment, use and development of skills, work atmosphere, internal communication (with manager, physicians and other members of the team), information availability (in order to do their work), support from colleagues and the hierarchy (concerning their well-being or difficult situations), and work recognition (by patients, patients' families, colleagues and managers), reached particularly high satisfaction rates for both sub-groups (above 80%), and both identified equally strongly with their institution (over 80%); 84% of nurses working in health were also very satisfied with the quality of care they were able to provide (Fig. 1). Experiences of violence (verbal or physical aggression by patients and sexual harassment by patients or colleagues) and mobbing were rarely reported (1%–3%).

However, satisfaction was globally lower regarding flexibility of schedule (albeit 66% for nurses in health vs. 49% outside), patients-to-nurse ratio, workload (60% satisfaction in health vs. 72% outside health), institutional development opportunities (50%), and personal health (70% inside the health sector considered themselves in good health vs. 64% outside).

The main problems reported related to participation in decisions (only 38% of nurses satisfied in the health sector and 30% outside) and burnout (28% vs. 26%).

Nurses working in the health sector had more problems reconciling work and family than those working outside health (59% vs. 48%), and only half (51%) were satisfied with their salary (vs. 62% outside health).

For nurses currently outside the health sector, satisfaction was markedly lower than within the health sector regarding flexibility of schedule (49% vs. 66%) and workload (Fig. 1). As expected, they identified themselves less with the nursing profession (64% vs. 92%).

Satisfaction with former job in the health sector

Work-family conflict, salary, workload, flexibility of schedule, burnout and lack of institutional development opportunities were the main problems of nurses reported about the job they quit in the health sector.

Overall, nurses who had left a job in the health sector and answered the additional 25 scores – describing potential reasons for having left their last job in health – still identified very strongly with the nursing profession (90%) and to some extent with their institution (70%, Fig. 2). They left either for the same type of health institution or for another type (see types in Table 1), or left the health sector.

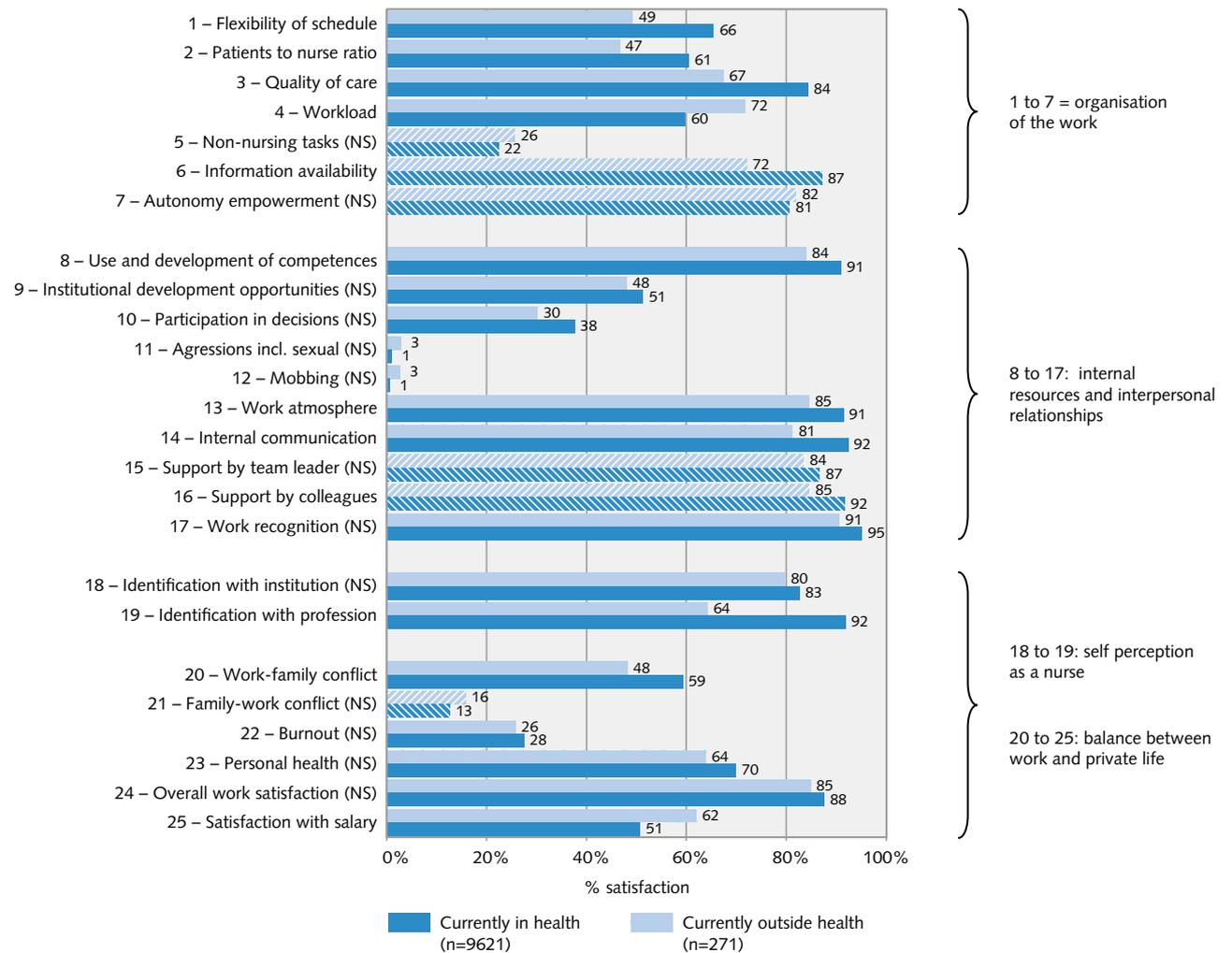
Altogether, 67% of these nurses were globally satisfied with that job episode – their last job – at the time of the survey. Satisfaction was highest (above 70% of nurses) for work recognition, availability of information, support by colleagues, use and development of competences, internal communication, quality of care and work atmosphere.

Satisfaction was lower regarding salary (59%), workload (55%), flexibility of schedule (54%), institutional development opportunities (39%) and participation in decisions (reported by 25% only). Out of elements affecting job satisfaction negatively, work-family conflict (61%) and burnout (39%) were those that scored highest. In contrast, health was not a major problem among those who left (68% reported good health).

Nurses' reasons for leaving the health sector

Some 28 reasons for leaving were studied for all last job episodes before leaving ($n=4318$). Nurses who left the health sector were compared to those who remained, by calculating Odds Ratios with 95% confidence intervals (ORs, logistic regression); ORs >1 indicate a higher risk of quitting, whereas <1 means a lower risk.

The strongest reasons for leaving the health sector (ORs between 1.53 and 1.95) were "too little identification with the profession", "wanted more time for personal life", "eager to discover a new profession", "lack of support from hierarchy", "start a new course of education". Those who found a more interesting job in health had less risk of leaving the health sector (OR 0.623, 95% CI 0.478–0.811), but paradoxically the same is true for those who reported "lack of work recognition" and "too many non-nursing tasks", who nevertheless remained in the health sector. Socio-demographic variables and other reasons did not influence these results.



- All questions had a positive wording (meaning satisfaction) except items number 5, 11, 12, 20, 21, 22 (hatched). For these, a high proportion means dissatisfaction. Family-work conflict is when the family/private life takes so much energy that it impacts negatively on the job; work-family conflict is the other way around.
- Fisher's exact test was significant (≤ 0.05) for the differences between the two categories of current employment for all scores except those signalled as NS (non significant).
- The term "satisfaction" is used here to simplify the reading. However for some of the 25 scores used to describe a job episode, respondents had to answer whether they agreed with statements, for others they had to indicate their degree of satisfaction with elements of the job, in further cases they had to report about frequency of occurrences.

Source: nurses at work study

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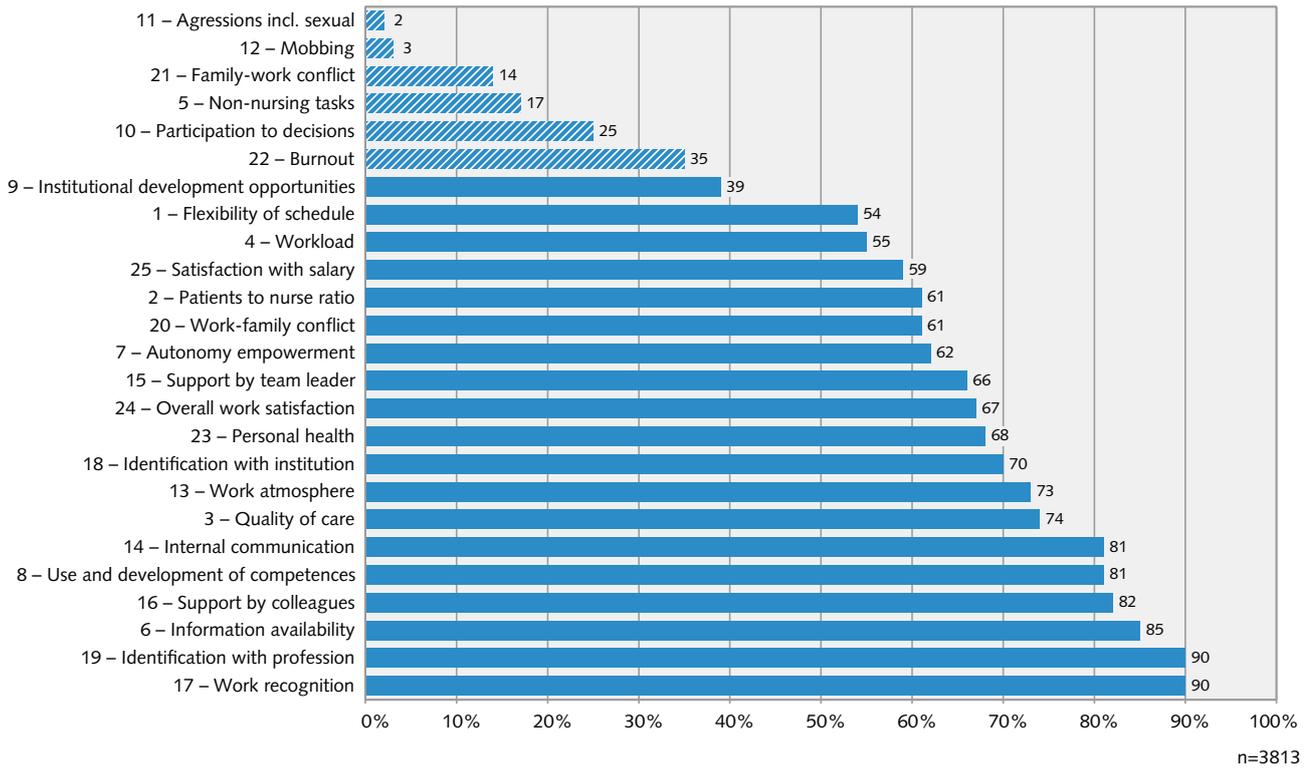
Proportion of the career spent in the health sector

When studying nurse retention, one would hope that most nurses remain in the health sector throughout their career. We therefore looked at the percentage of time spent by nurses in the health sector between the year of graduation and the 2014–2015 survey.

Participating nurses spent two thirds of their potential career span since graduation in the health sector.

Socio-demographic factors played no role in career duration within the health sector. Indeed, when taking the current professional situation, gender, age, linguistic region, nationality and number of children at the time of survey together (linear regression, n= 6813 with complete answers), the analysis showed that the only significant determinants of a shorter career in the health sector were "to be currently working outside the health sector" (only 25% of the career

spent in health) or "currently not having paid work" (only 39%). This appears to be an important finding as it shows that the nurses working in other sectors have spent a rather short part of their career in health. In other words, if they leave the health sector, they do so early in their career which should be considered when defining retention policies.



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Number of jobs in the health sector during the career

When seeking to improve retention, it is also important to consider the number of work episodes in health throughout a career. The same socio-demographic factors as above were therefore analysed again together (negative binomial regression, $n=8637$), as well as the time span between graduation and the date of the survey. This allows assessment of the effect of age at any point in time during a career, since older nurses potentially have a longer career.

Nurses who took a career break, e.g. to start a family, had a similar number of job episodes to those who were currently in the health sector.

For a given time span, nurses currently outside the health sector had 34% fewer work episodes in the health sector than those still working in health. This finding is in line with the previous analysis of career duration, and both outcomes may indicate that the decision to leave the health sector was taken early in their career and not just before their last job change. In contrast, the number of employment episodes in the health sector for respondents without paid work was similar to that of respondents who were still working in health. Gender did not influence the number of work episodes in health, but older nurses were more stable (30% fewer episodes for a ten-year increase in age above

41 years of age). Nurses from Ticino had 18% fewer episodes in health than those from the other regions. On average, non-Swiss nurses (with a Swiss diploma) experienced 21% less episodes in health than their Swiss counterparts, and nurses with children had 15% fewer episodes in health than those without children.

Conclusions

- Up to 90% of nurses who worked in the health sector were globally satisfied with their current job regarding factors related to workplace characteristics and resources and interpersonal relationships. They were satisfied with the quality of care they provided and identified strongly with the nursing profession.
- Only 6% of respondents were nurses who do not work as nurses anymore. This proportion is lower than expected, despite targeted communication efforts to reach this group of nurses who could contribute most to the understanding of why nurses leave nursing. This may be due to the recruitment method (via ASI/SBK membership, employers/associations), or indicate that few nurses actually leave the profession. Indeed, participating nurses tended to stay in the health sector even when changing institution, and spent two-thirds of their potential career time since graduation in the health sector. Nevertheless, the retention potential measured seems not as large as assumed.
- Reasons for dissatisfaction among nurses working in the health sector were: areas of current workplace and career disappointment including work-family conflict, low salary, burnout, high workload, lack of participation in decision-making and lack of institutional development opportunities.
- Nurses working outside the health sector enjoyed better working conditions in terms of salary, workload and resolving work-family conflict. However, some problematic issues remained, such as inflexibility of schedules, lack of participation in decision-making and lack of institutional development opportunities.
- Career paths of nurses are quite similar across sub-groups throughout the country, particularly in terms of their duration and of the number of job episodes in the health sector.
- Regardless of their age and of whether they had children or not, nurses who had already left the health sector were those with the shortest career in the health sector. Only a quarter of their potential time since graduation was spent in the health sector while those who had no paid work have spent 40% of their potential time in the health sector.
- When nurses leave the health sector, they do so early in their career, which should be considered when defining retention policies.
- The results have to be interpreted with caution, as the survey participation rate was relatively low.
- The study design implies some limitations including respondents' memory bias when describing older job episodes, incomplete career paths as well as missing values due to the length of the questionnaire.

Recommendations

- Efforts to improve retention should focus on supporting nurses in resolving their work-family conflict. Additional measures may include more appropriate pay scales, participation opportunities in decision-making (empowerment), and reducing workload (and thus minimising burnout), as well as developing institutional opportunities for career development.
- In light of those nurses who leave the health sector early in their career, it is important to devise strategies to 1) retain them in the earlier stages of their career, 2) identify possible cultural issues that push non-Swiss nurses to choose other sectors, 3) address family-work issues and 4) deploy measures to attract nurses back into the sector.
- In addition, special attention should be given to burnout and therefore preserve the health of nurses in general.

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CDS Conferenza svizzera delle direttrici e dei direttori cantonali della sanità



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