

Swiss Medical Students' Career Plan, Specialty, and Residency Location Choices

2011 Survey

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Unit of Development and Research in Medical Education (UDREM)

With the participation of

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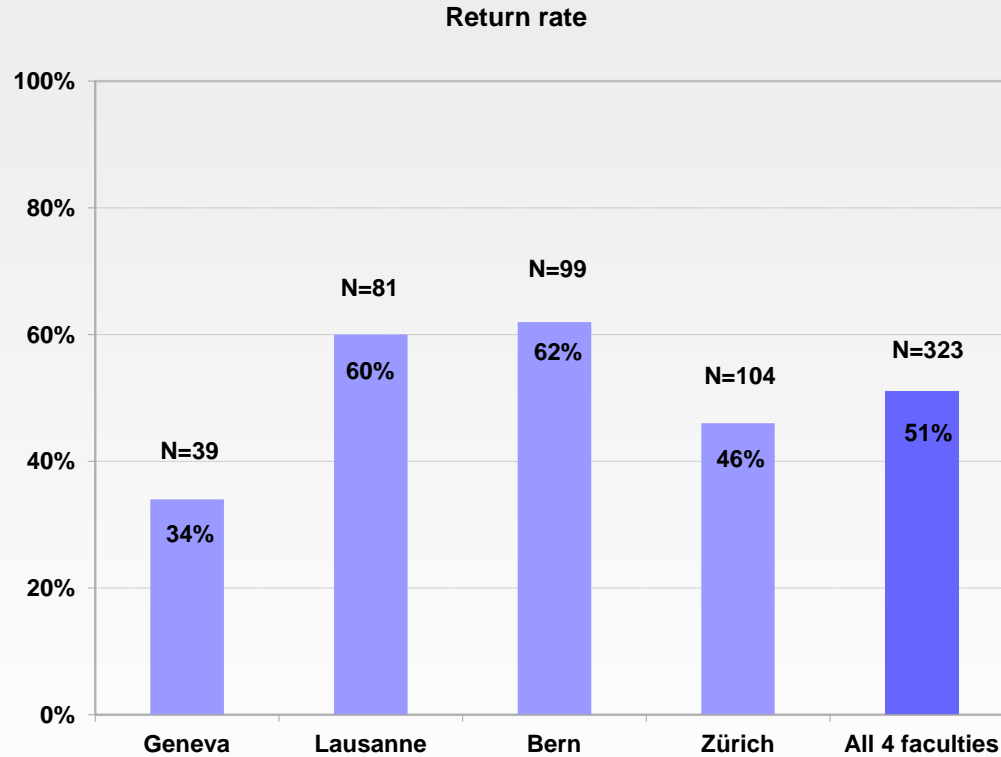
Roger Kropf, MD, MME & Christian Schirlo, MD, MME

University of Zurich Faculty of Medicine

Barbara Stadelmann, PhD, MME – University of Bern Faculty of Medicine

This study is part of the University of Geneva Faculty of Medicine Follow-up project. The project has received support and funding from the Faculty of Medicine, the Foundation De Reuter, Louis Jeantet, and Schmidheiny and the Academic Society of Geneva. The opinions expressed here are those of the authors and should not be attributed to the institutions and funding agencies.

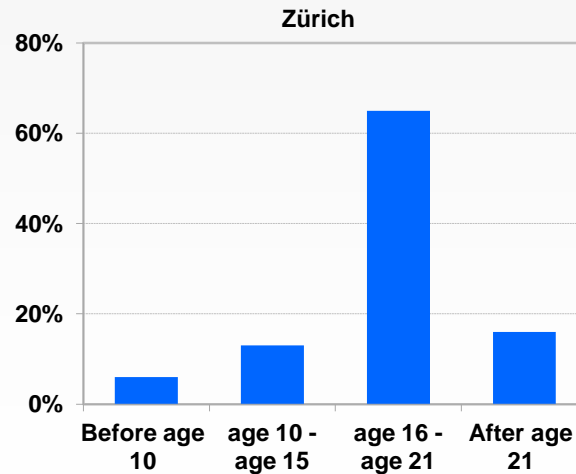
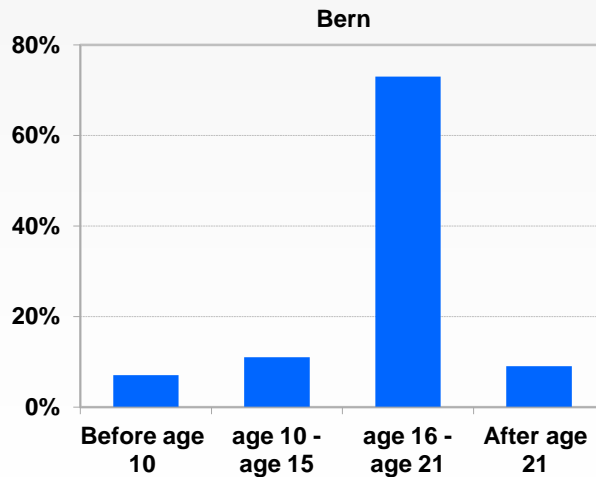
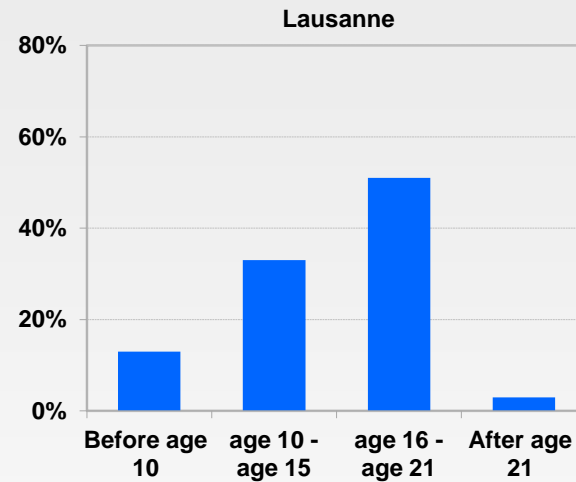
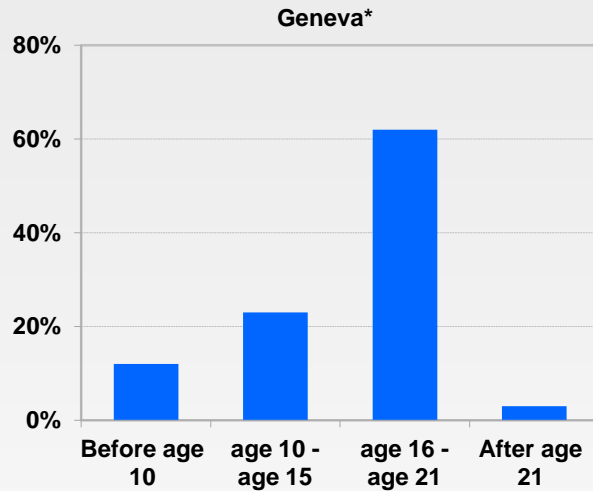
2011 survey conducted with students from the Faculty of Medicine of Lausanne, Bern, Zurich and Geneva*



* Geneva (N total = 114), Lausanne (N total = 134), Bern (N total = 160), Zurich (N total = 223) / Surveys administered in the 6th year

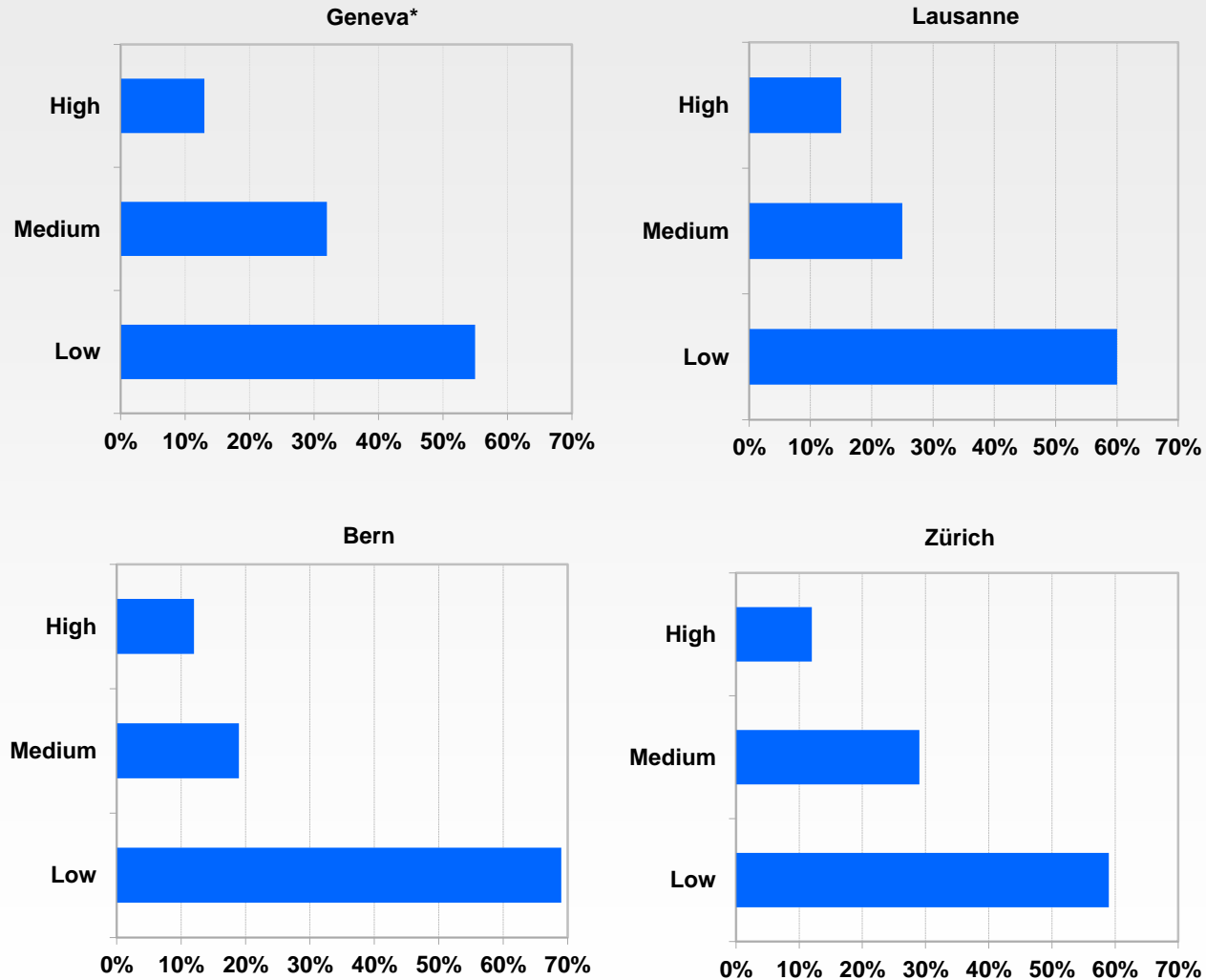
* The surveys for Lausanne and Geneva were administered on paper while the ones for Bern and Zurich were on-line

Age of decision to study medicine



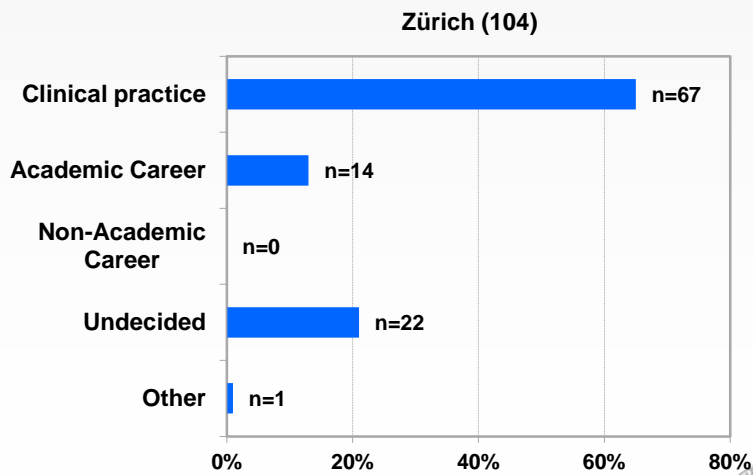
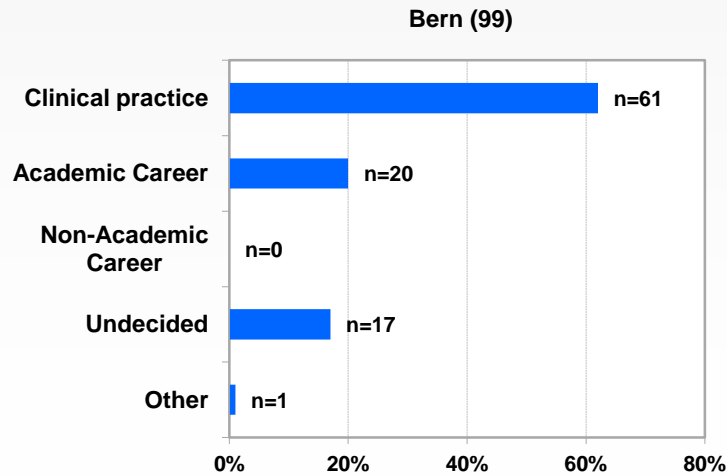
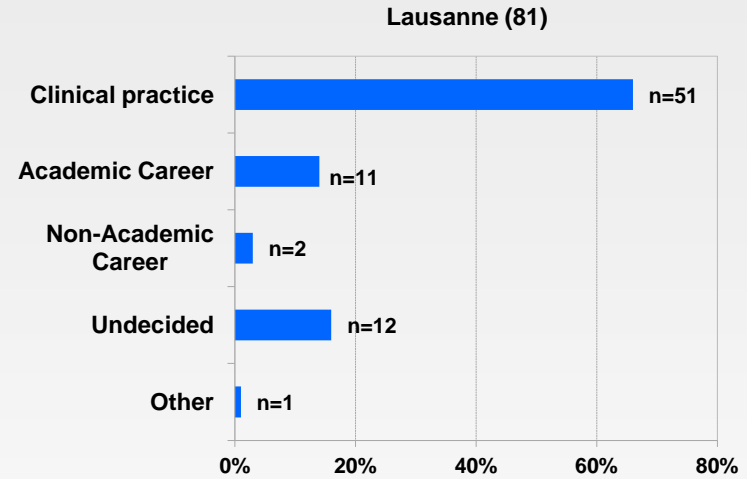
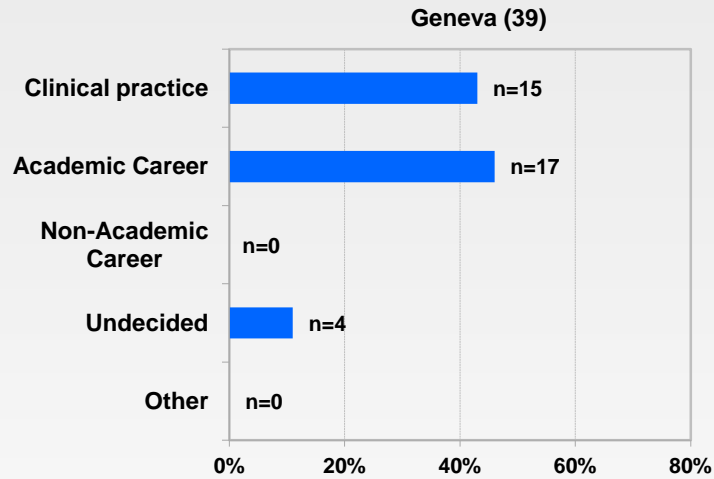
* This item was asked to the students in Geneva (n=132) at the end of their second year in a separate survey questionnaire

Degree of hesitation to study medicine



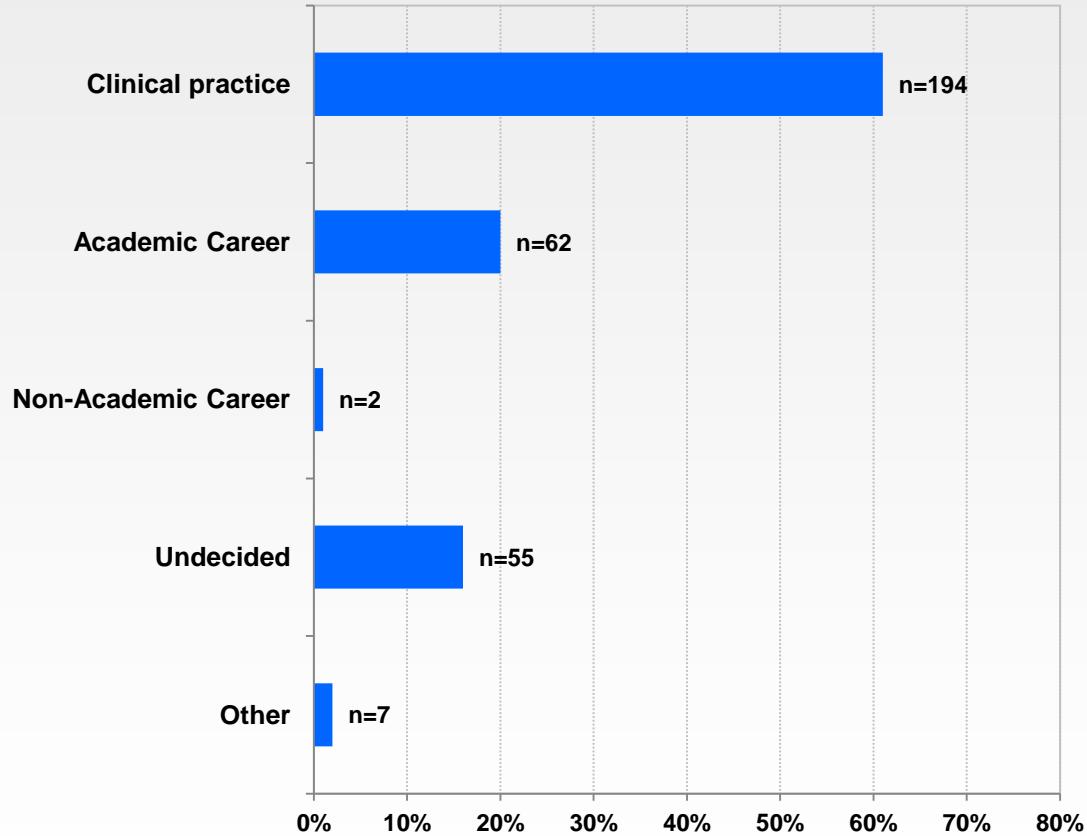
* This item was asked to the students in Geneva (n=132) at the end of their second year in a separate survey questionnaire

Choice of career plan By faculty

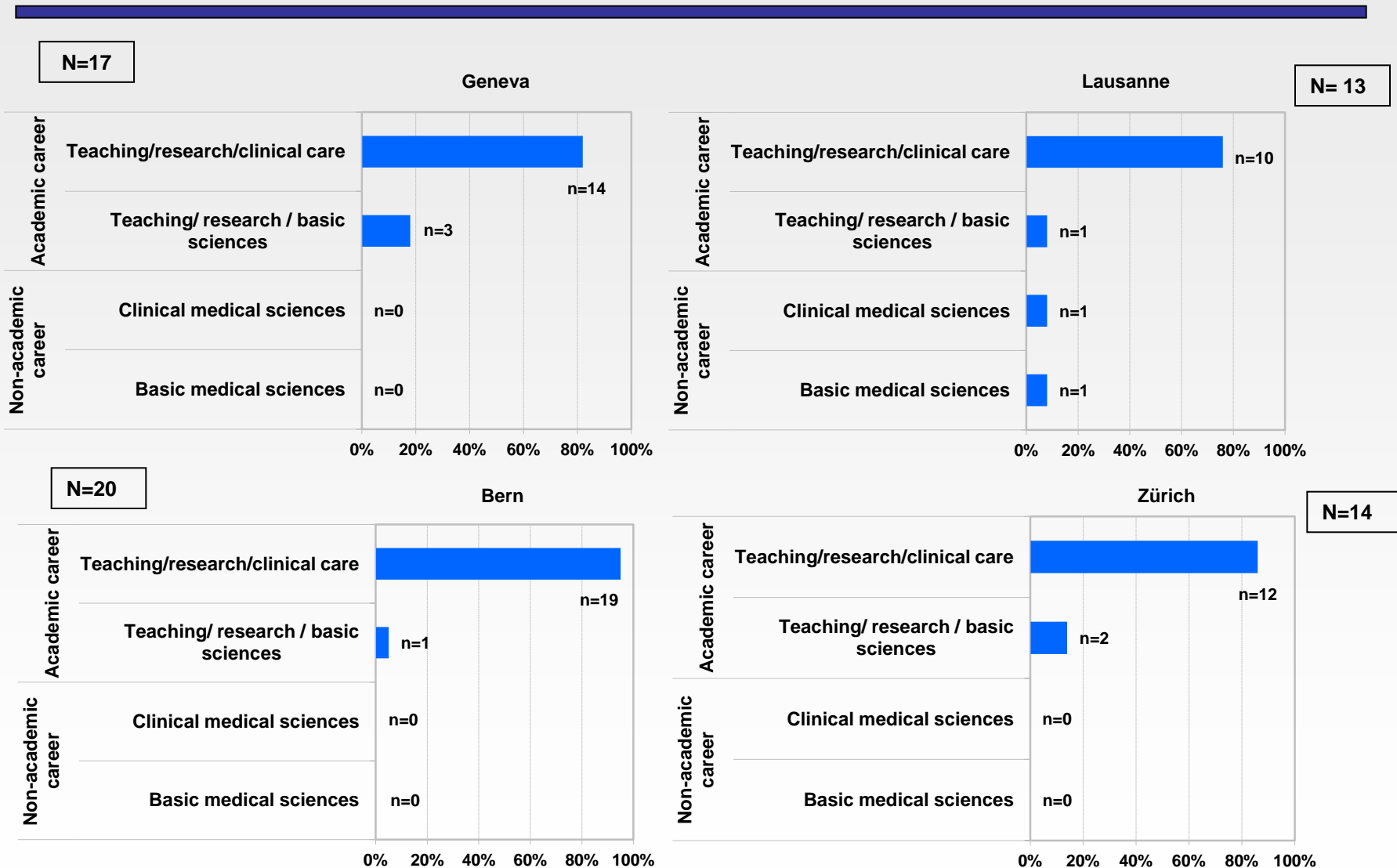


Choice of career plan

All 4 faculties (N=323)

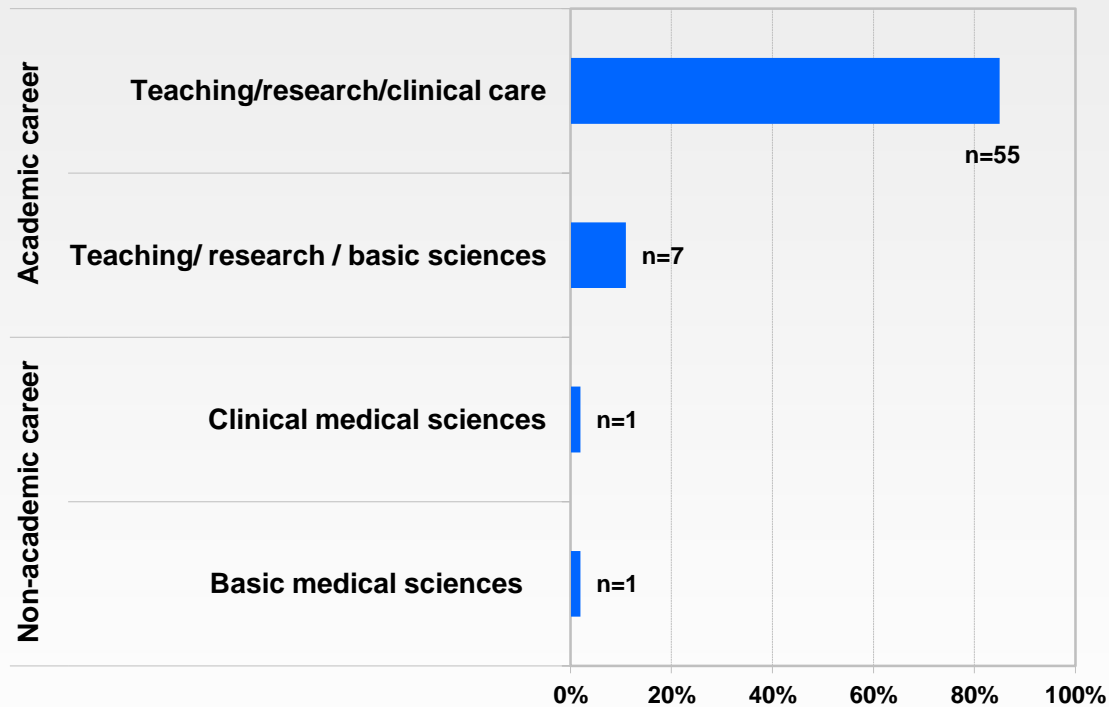


Choice within academic vs. non-academic career plan By faculty



Choice within academic vs. non-academic career plan

All 4 faculties (N=64/265)*

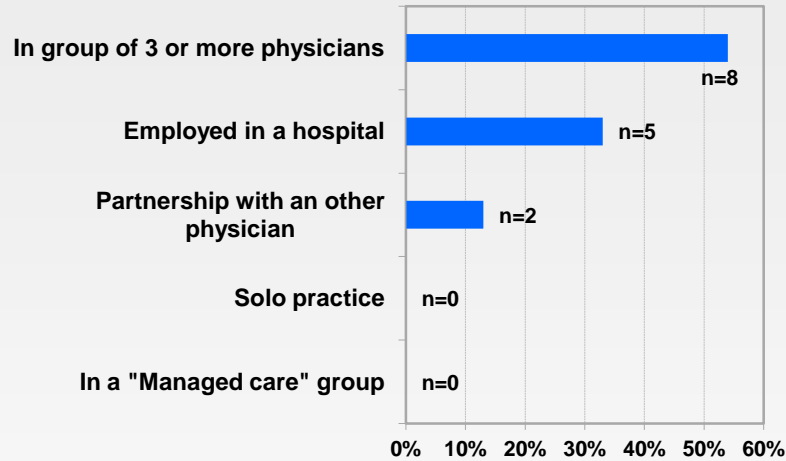


*Number of students with an academic vs non-academic career plan / Number of students having made a career plan choice

Choice of clinical practice as career plan By faculty

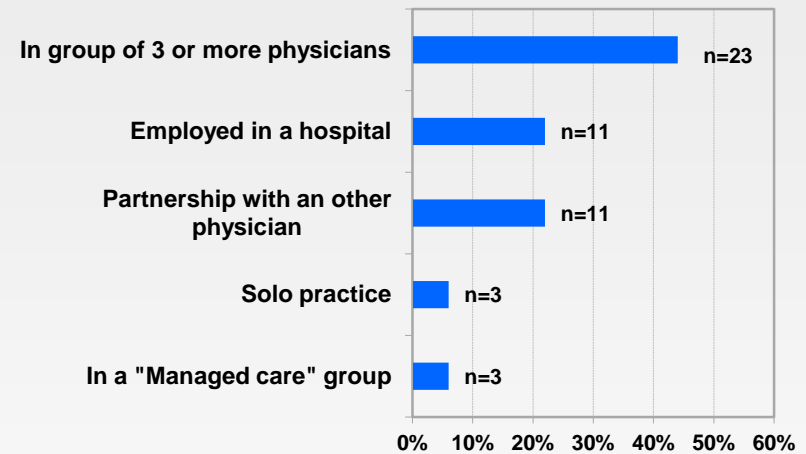
N=15

Geneva



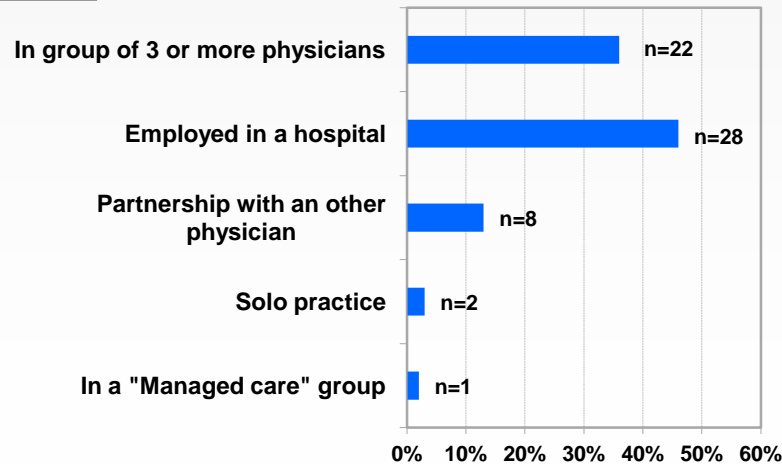
N=51

Lausanne



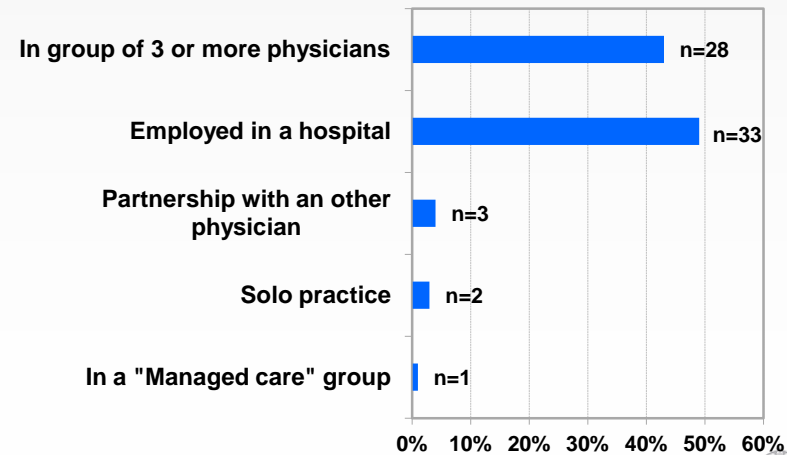
N=61

Bern



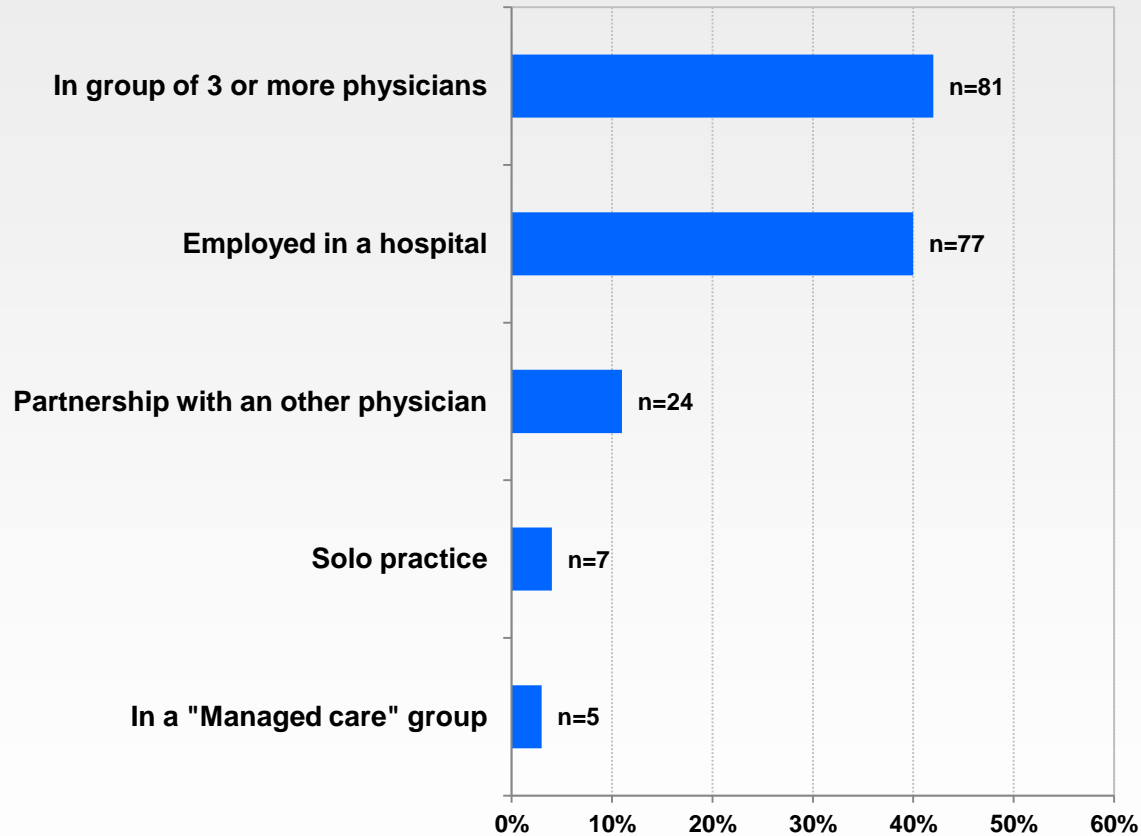
N=67

Zürich



Choice of clinical practice as career plan

All 4 faculties (N=194/265)*



*Number of students with a clinical practice career plan / Number of students having made a career plan choice

Reasons for career plan choice

Personal values/ considerations

- Passionate for medicine
- Influence of family (parents are doctors...)
- Intellectually challenging
- Have great interest and affinity for medicine

Work extrinsic characteristics

- Career advancement and competitiveness
- Financial security
- Working conditions (schedule, private practice/hospital, full/part time)
- Working environment
- Lifestyle (family-work equilibrium)
- Swiss law on limitation of opening new medical practices
- Number of residency positions
- Needs of physicians in the specialty

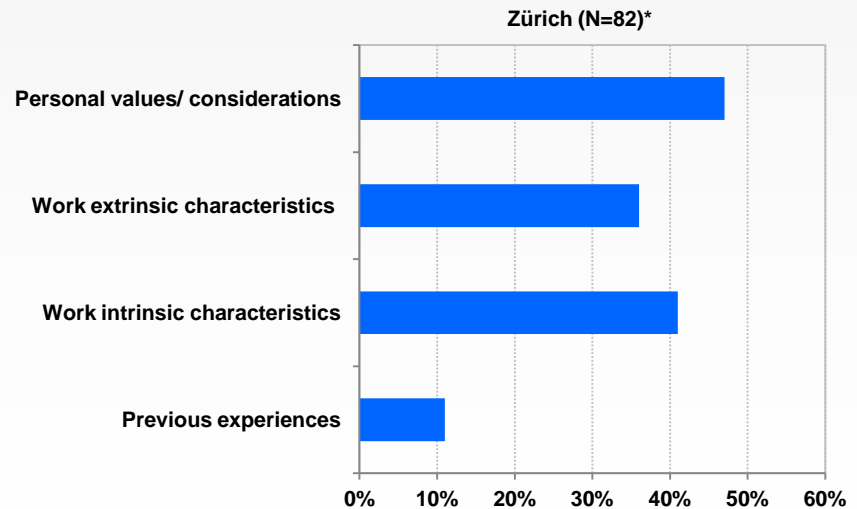
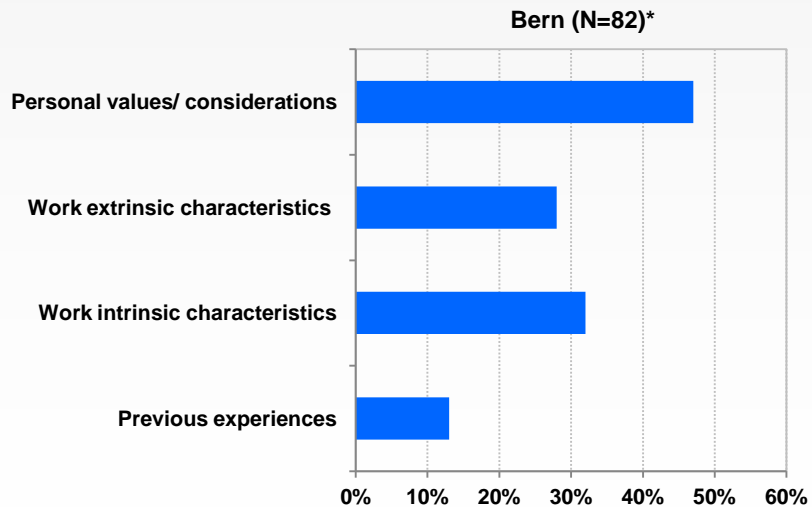
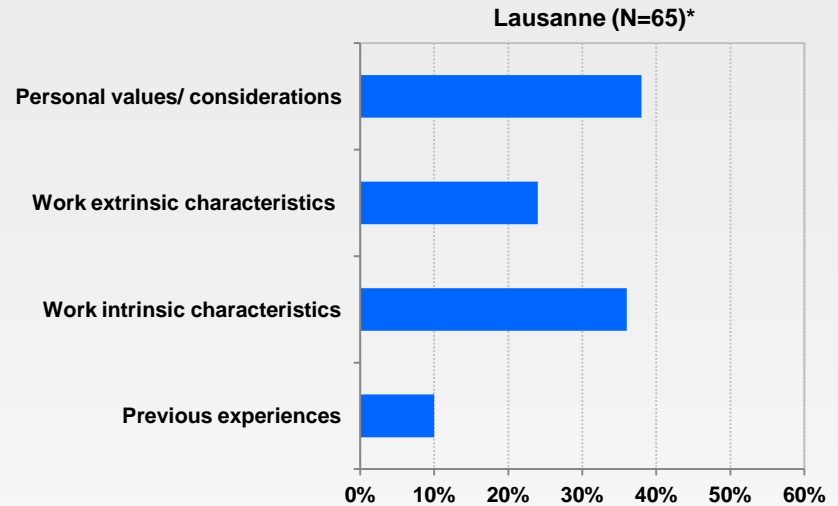
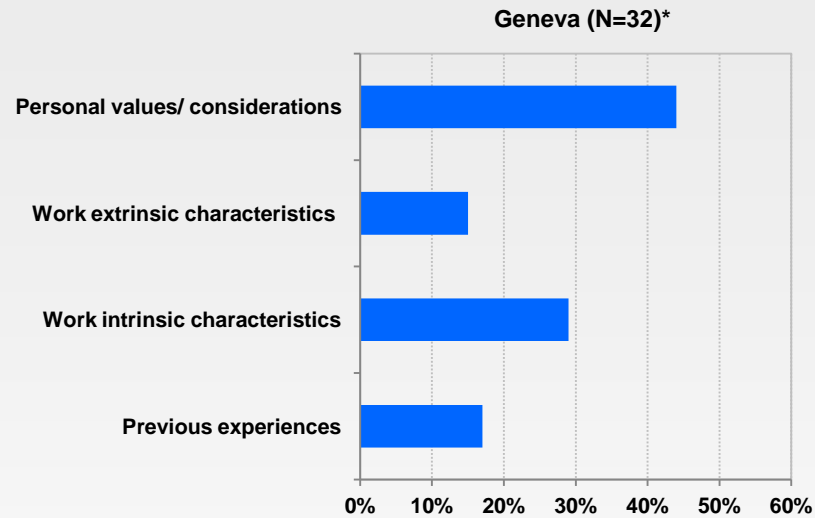
Work intrinsic characteristics

- Interpersonal relationship and contact with patients
- Multidisciplinarity
- Variety of activities, experiences, types of pathologies...
- Team work
- Tied to research
- Technical skills (manual, precise skills)
- High level of complexity and leading edge progress
- Level of responsibility and decision-making

Previous experiences

- Personal experiences (accident, disease...)
- Experiences while a student (clinical clerkship, work as substitute)
- Influence of a family member
- Influence of a course, teacher, chief resident
- Other

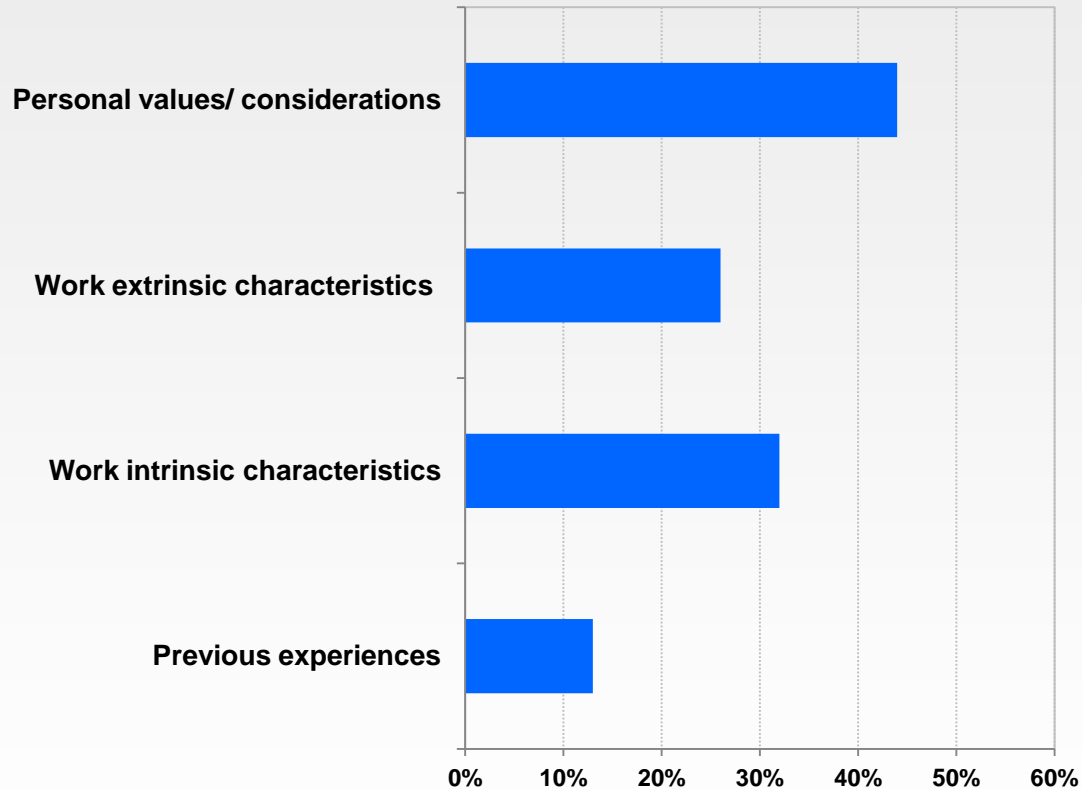
Reasons for career plan choice By faculty



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice

All 4 faculties (N=261/323)*

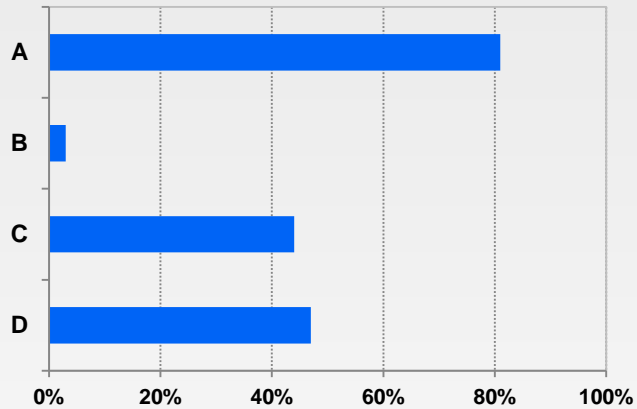


* Percentages based on number of students who indicated having made a career plan choice

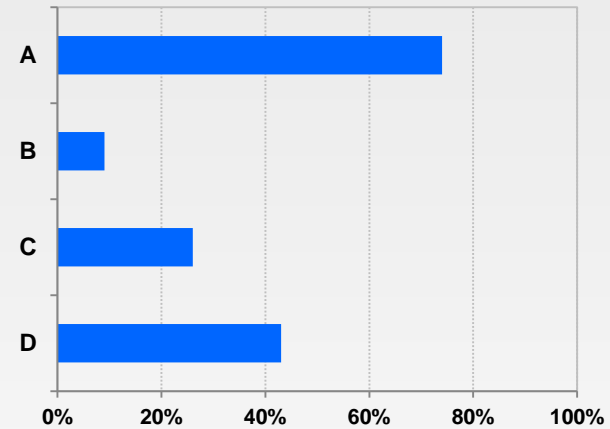
Reasons for career plan choice: Personal values/considerations

By faculty

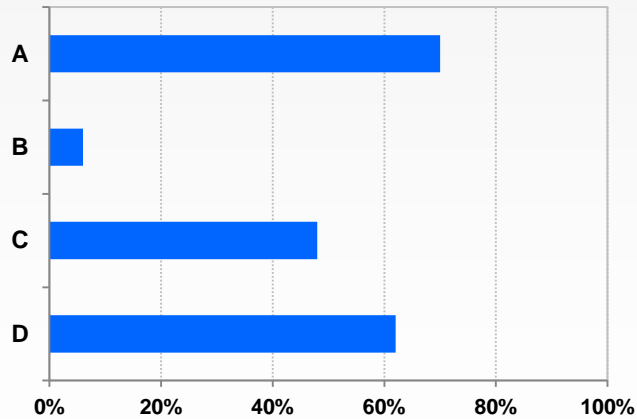
Geneva (N=32)



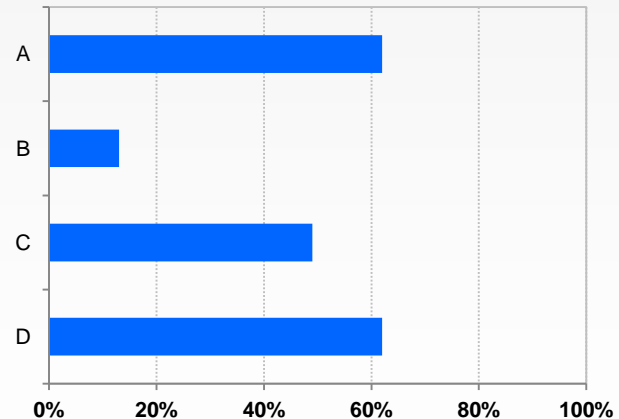
Lausanne (N=65)



Bern (N=82)



Zürich (N=82)



A Passionate for medicine

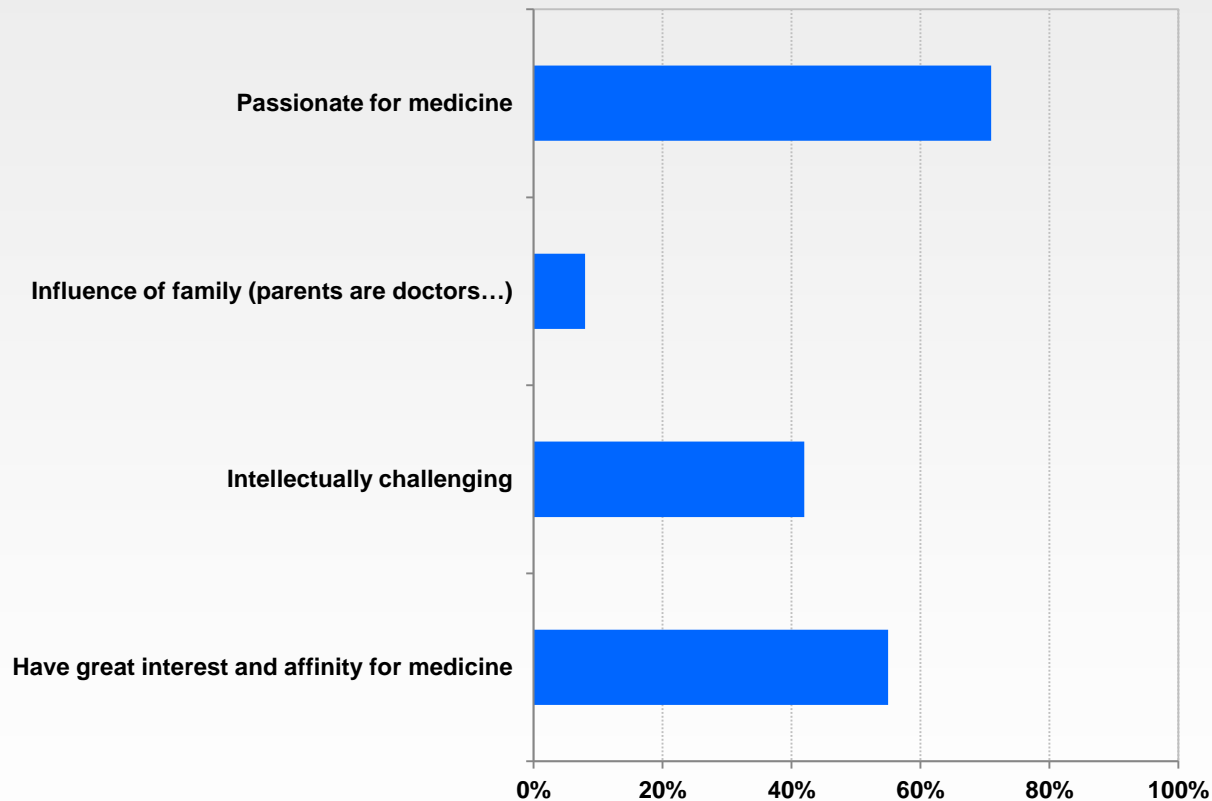
B Influence of family (parents are doctors...)

C Intellectually challenging

D Have great interest and affinity for medicine

Reasons for career plan choice: Personal values/considerations

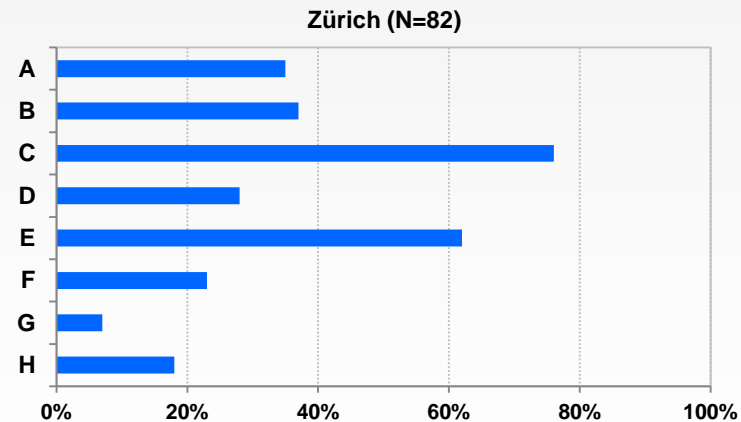
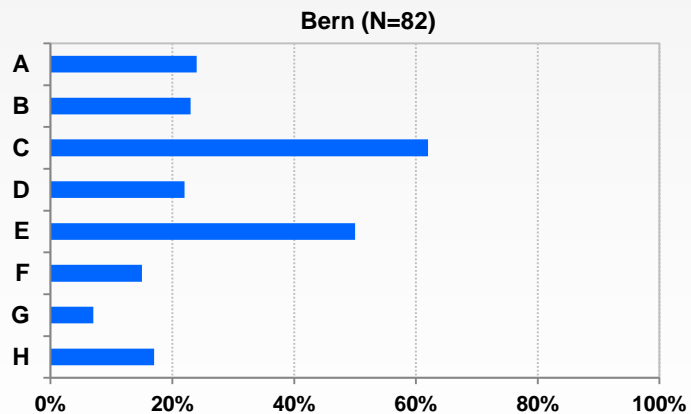
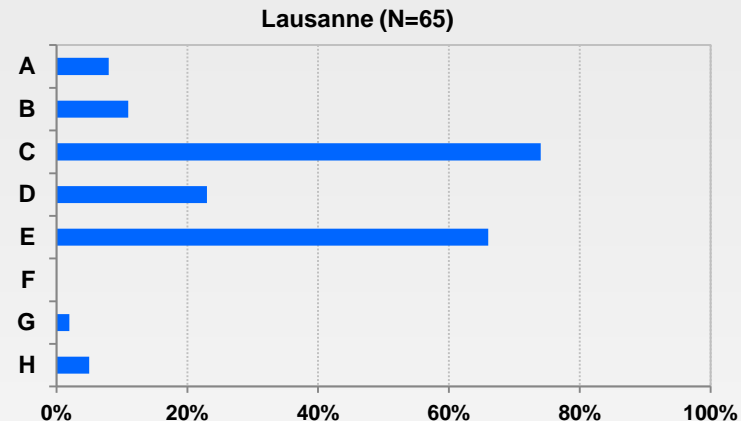
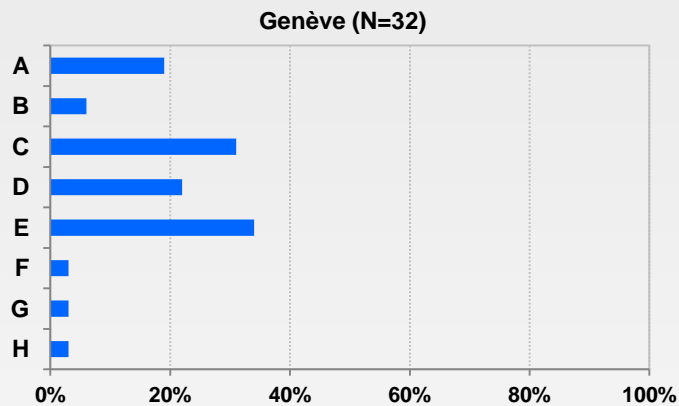
All 4 faculties (N=261/323)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Work extrinsic characteristics

By faculty



A Career advancement and competitiveness

B Financial security

C Working conditions (schedule, private practice/hospital, full/part time)

D Working environment

E Lifestyle (family-work equilibrium)

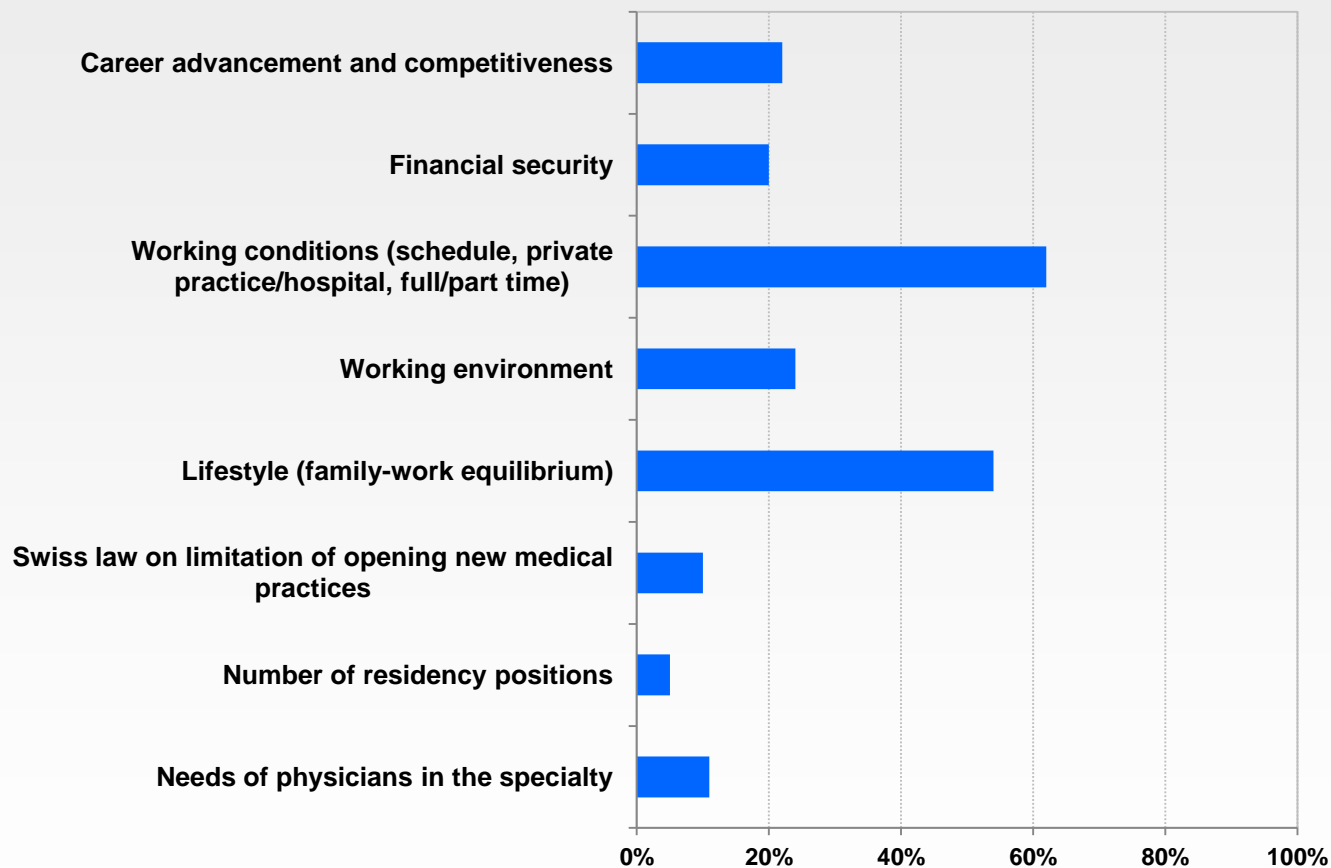
F Swiss law on limitation of opening new medical practices

G Number of residency positions

H Needs of physicians in the specialty

Reasons for career plan choice: Work extrinsic characteristics

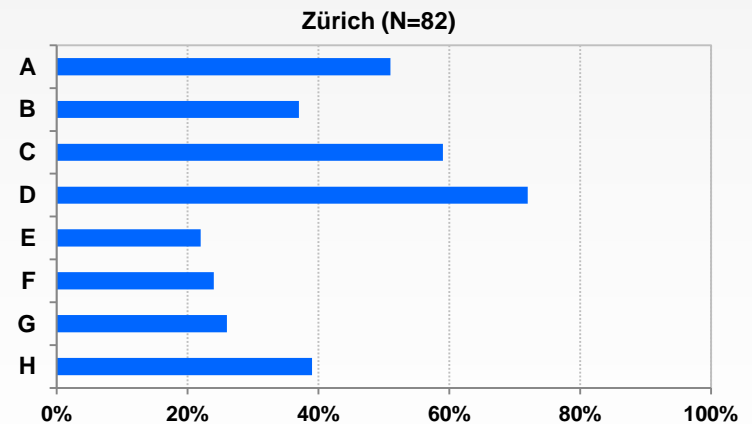
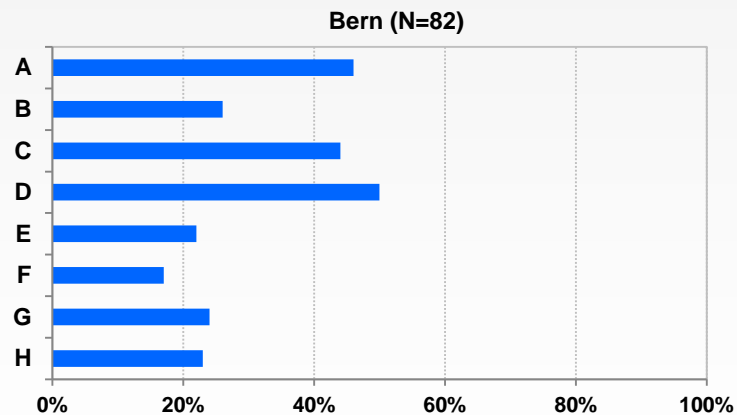
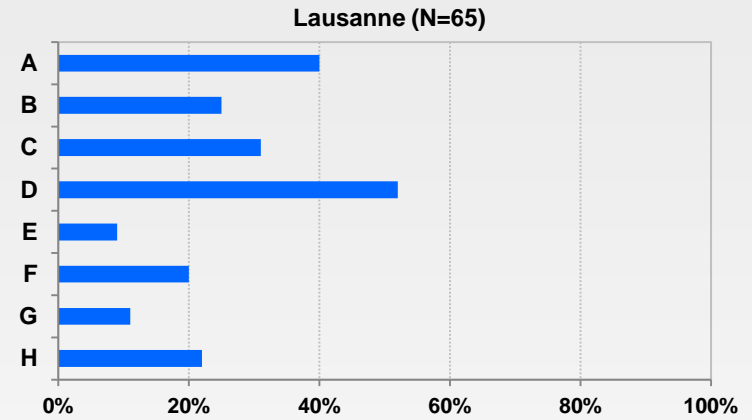
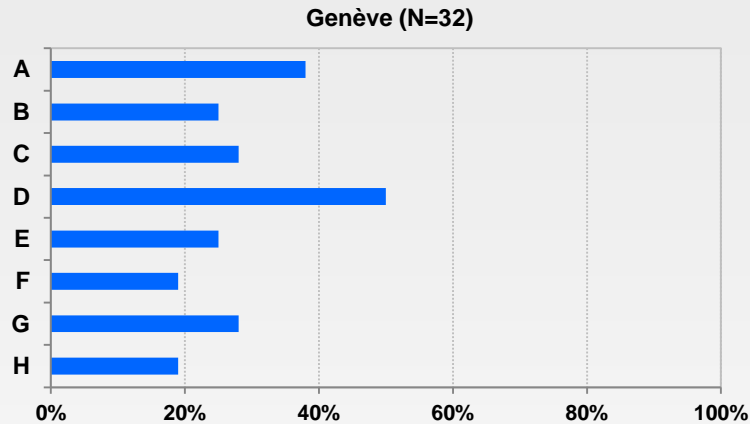
All 4 faculties (N=261/323)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Work intrinsic characteristics

By faculty



- A Interpersonal relationship and contact with patients
- B Multidisciplinary
- C Variety of activities, experiences, and types of pathologies...
- D Team work

- E Tied to research
- F Technical skills (manual, precise skills)
- G High level of complexity and leading edge progress
- H Level of responsibility and decision-making

Reasons for career plan choice: Work intrinsic characteristics

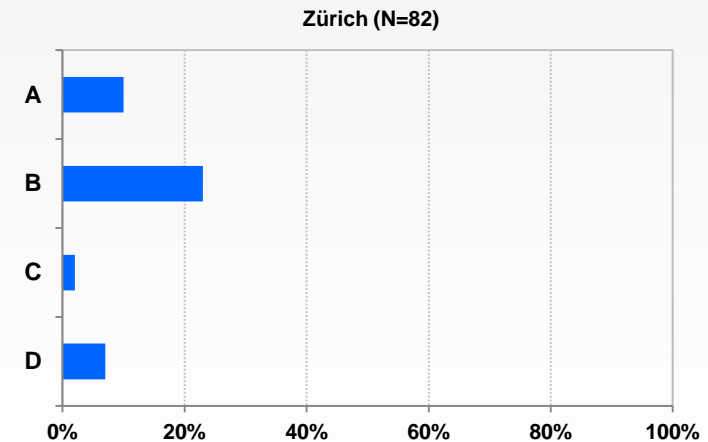
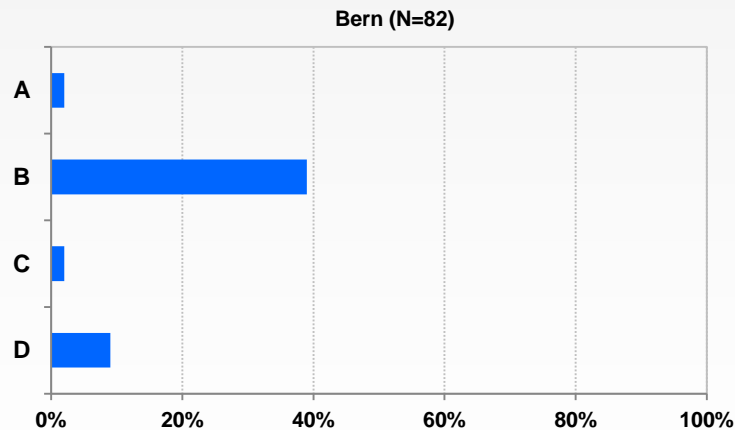
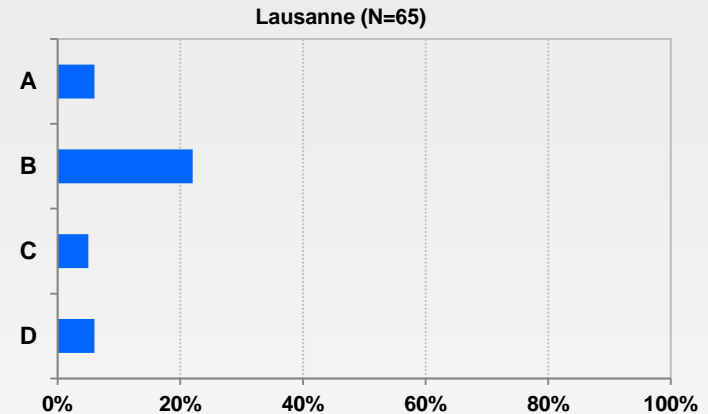
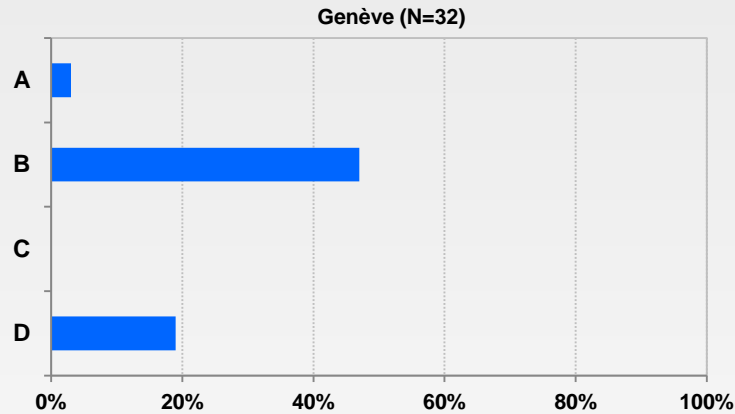
All 4 faculties (N=261/323)*



* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Previous experiences

By faculty



A Personal experiences (accident, disease...)

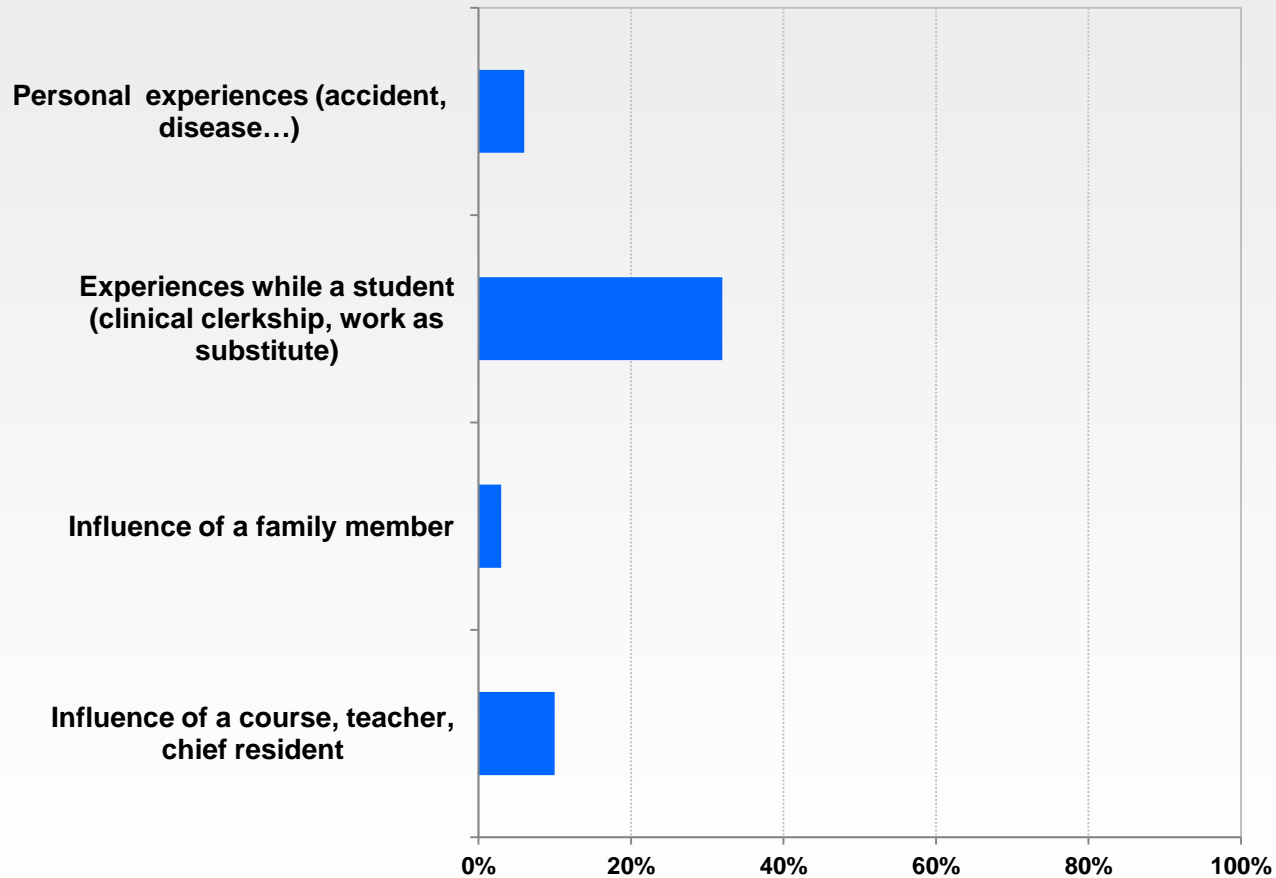
B Experiences while a student (clinical clerkship, work as substitute)

C Influence of a family member

D Influence of a course, teacher, chief resident

Reasons for career plan choice: Previous experiences

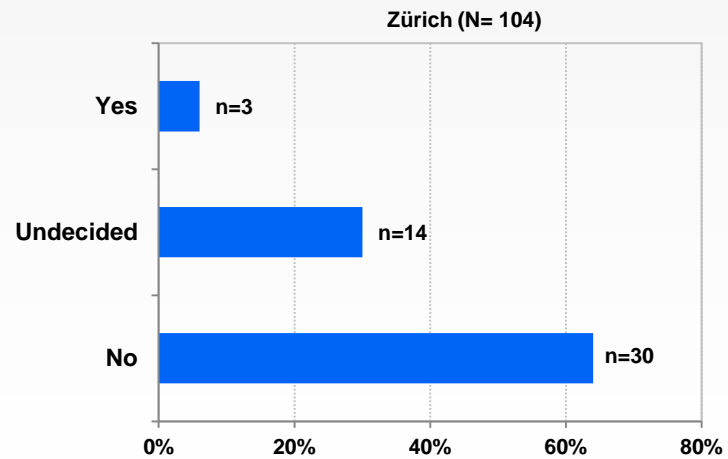
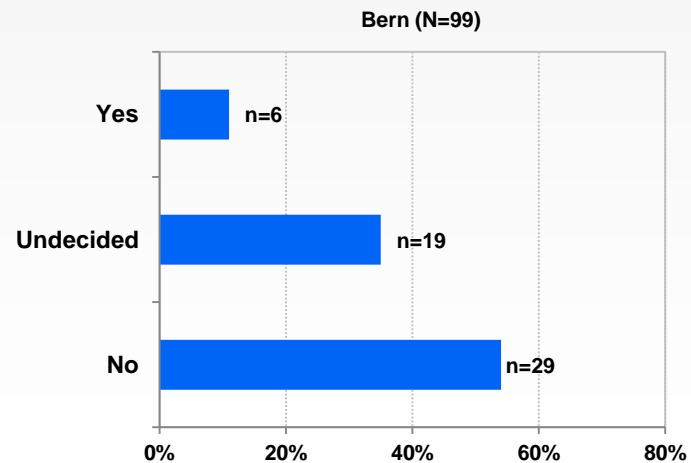
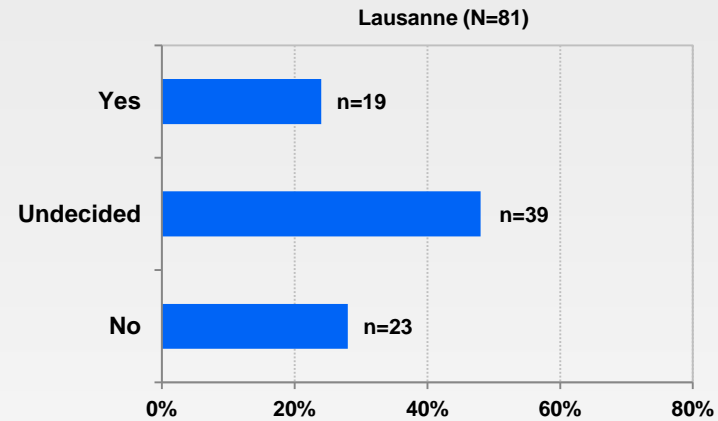
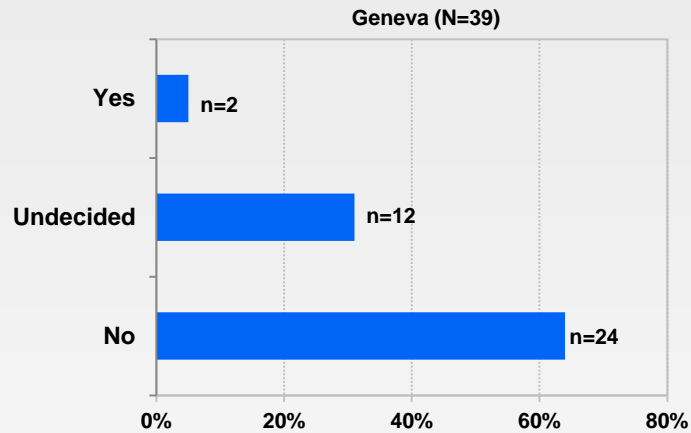
All 4 faculties (N=261/323)*



* Percentages based on number of students who indicated having made a career plan choice

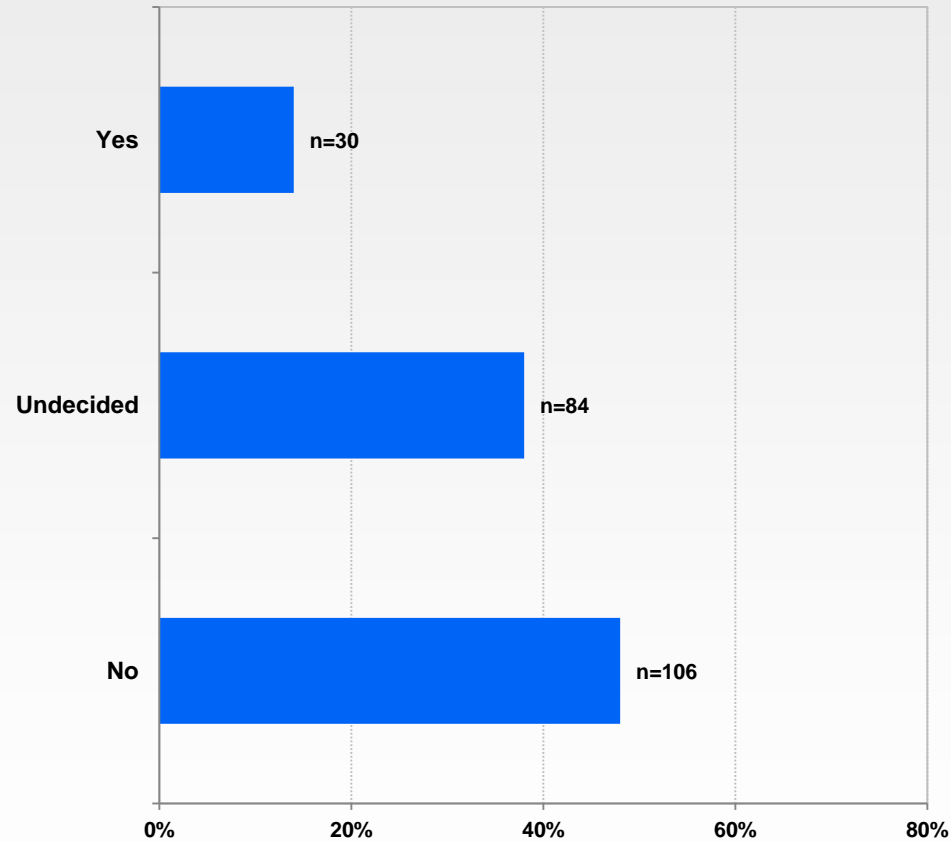
Intention of practice in medically underserved areas

By faculty



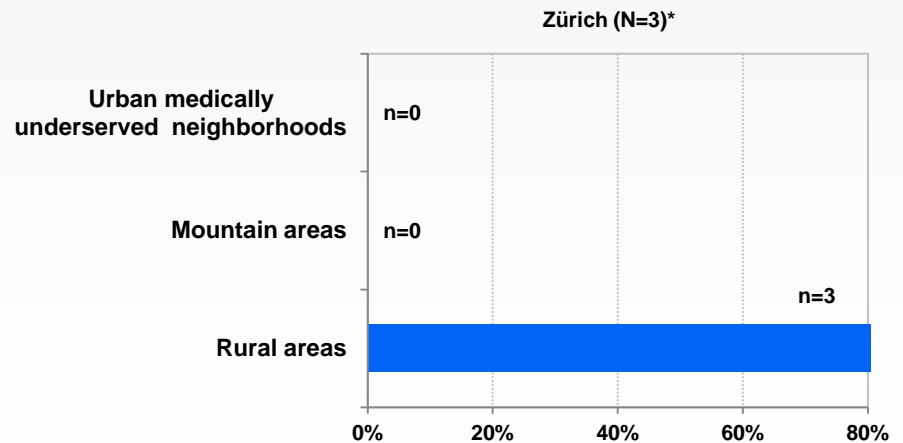
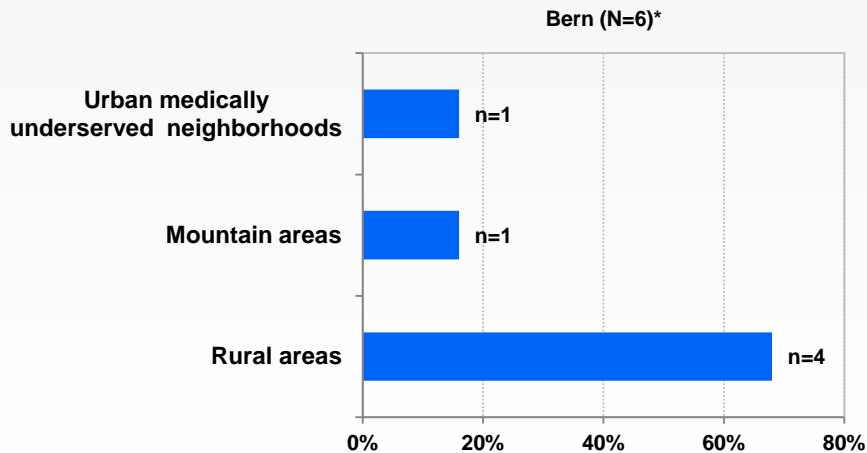
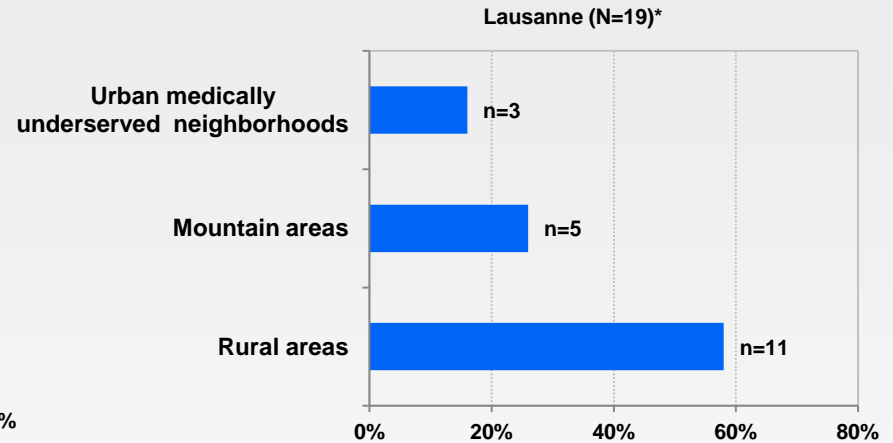
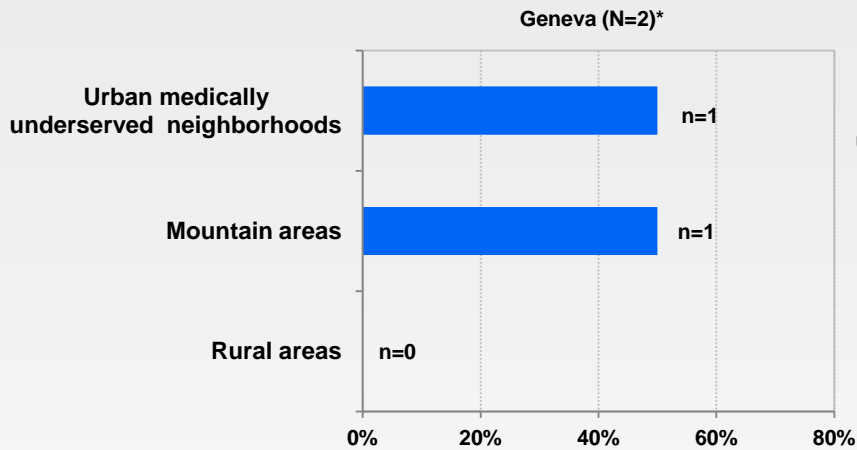
Intention of practice in medically underserved area

All 4 faculties (N=323)



Choice of place of practice in medically underserved areas

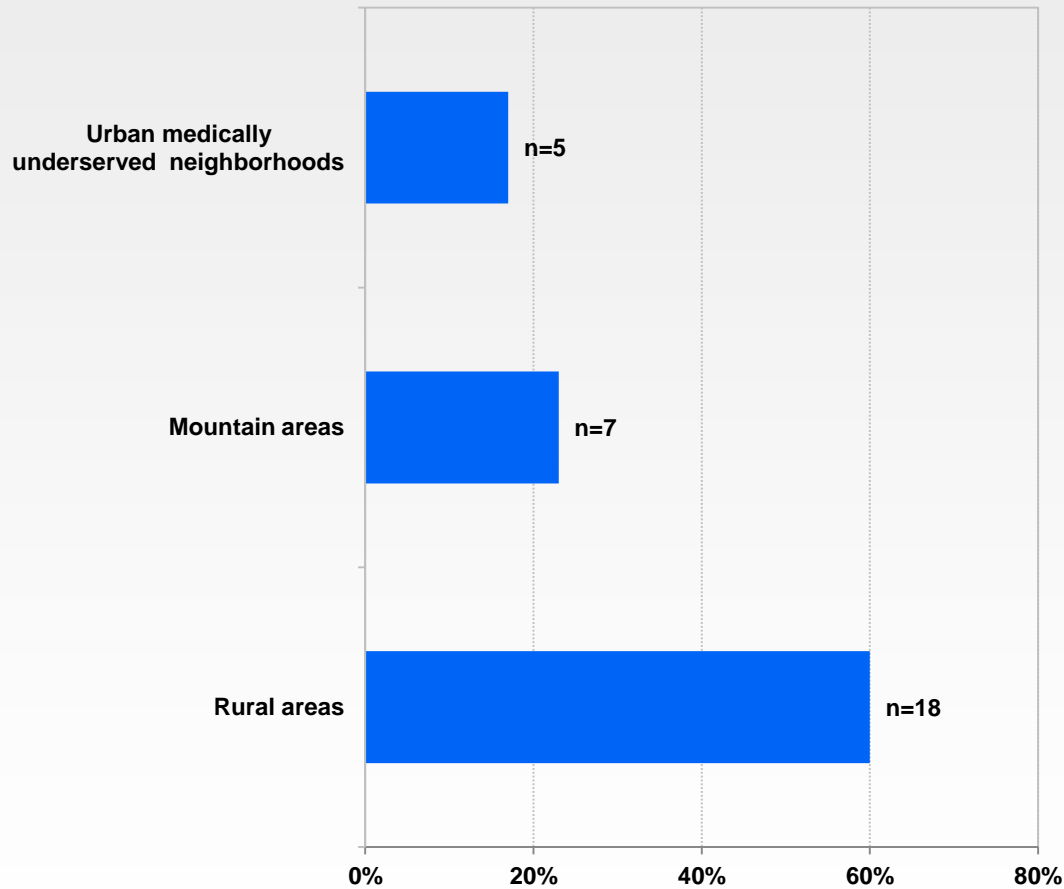
By faculty



* Percentages based on the number of students who indicated having intention to practice in medically underserved areas

Choice of place of practice in medically underserved areas

All 4 faculties (N=30/323)*

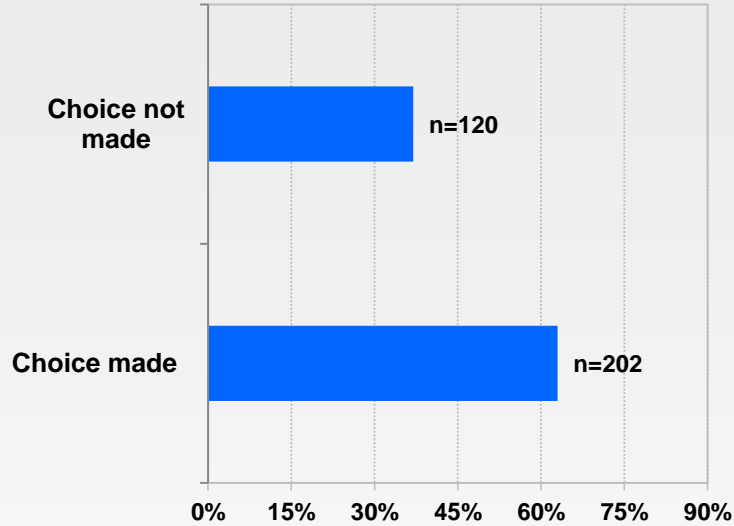


* Percentages based on the number of students who indicated having intention to practice in medically underserved areas

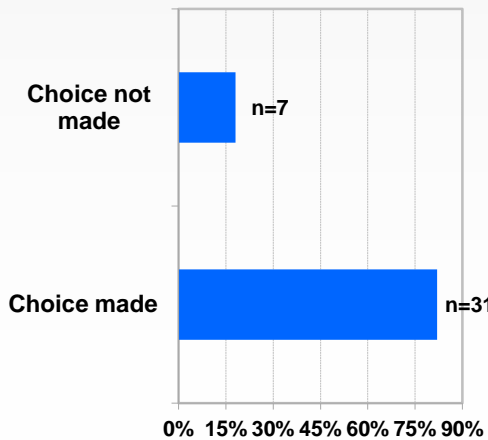
Specialty choice status

All 4 faculties and by faculty

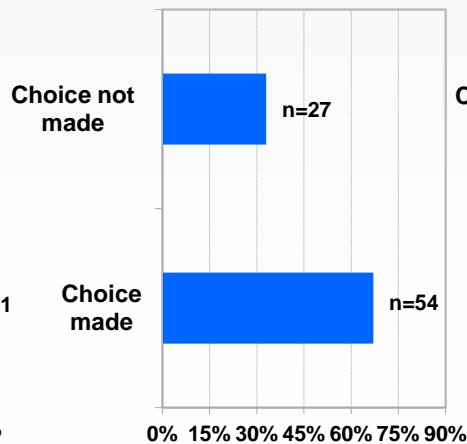
All 4 Faculties



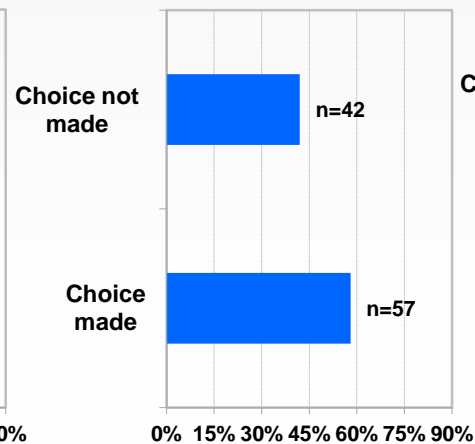
Geneva



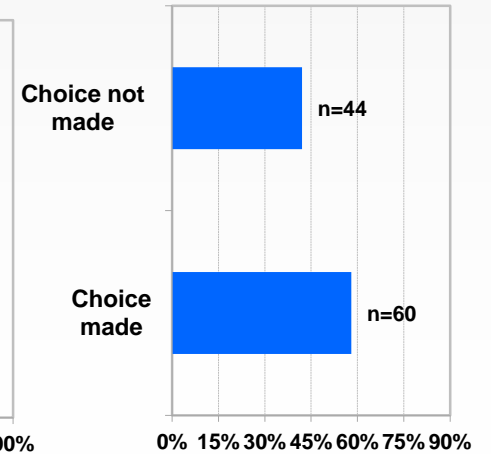
Lausanne



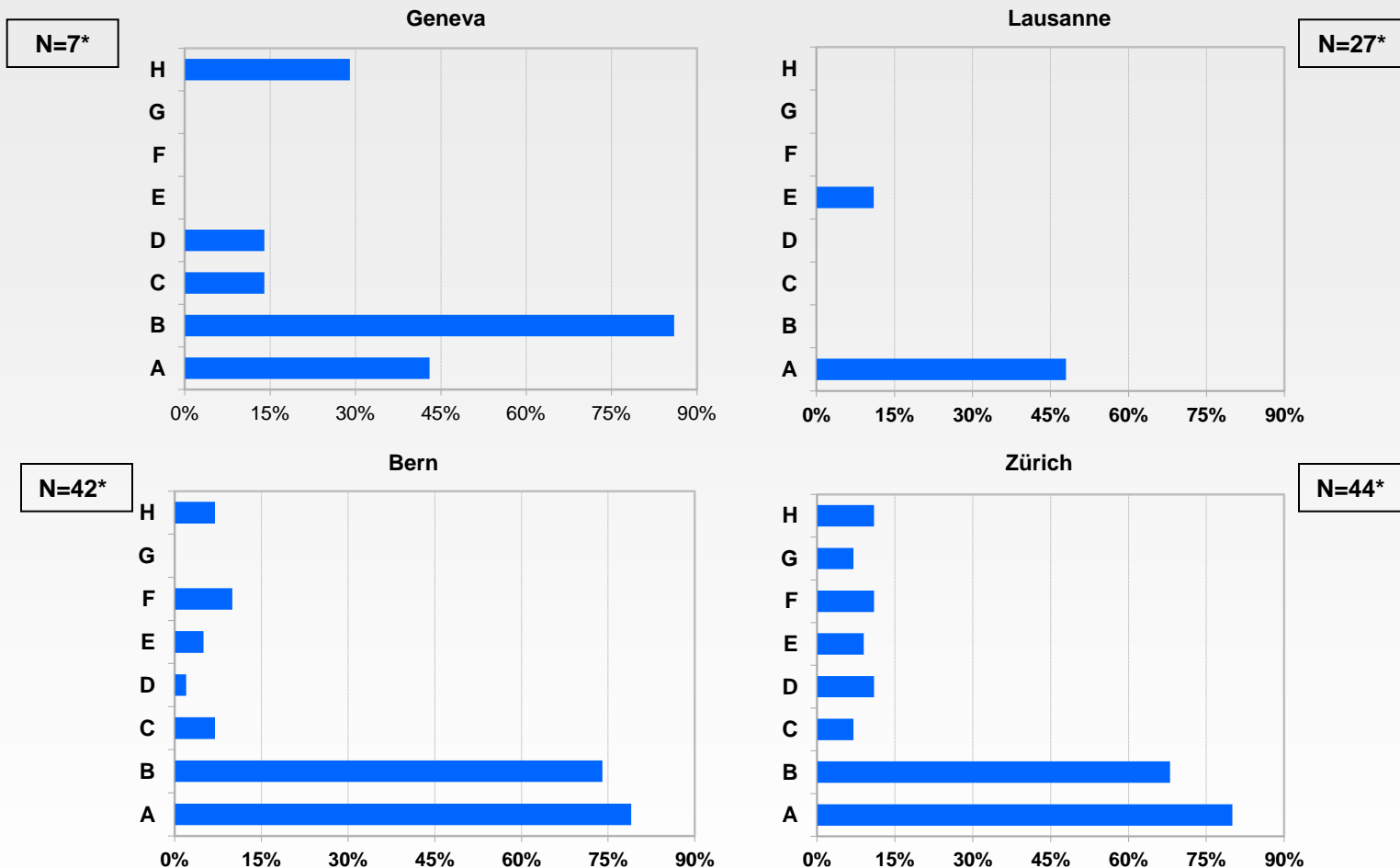
Bern



Zürich



Reasons for not making a specialty choice By faculty

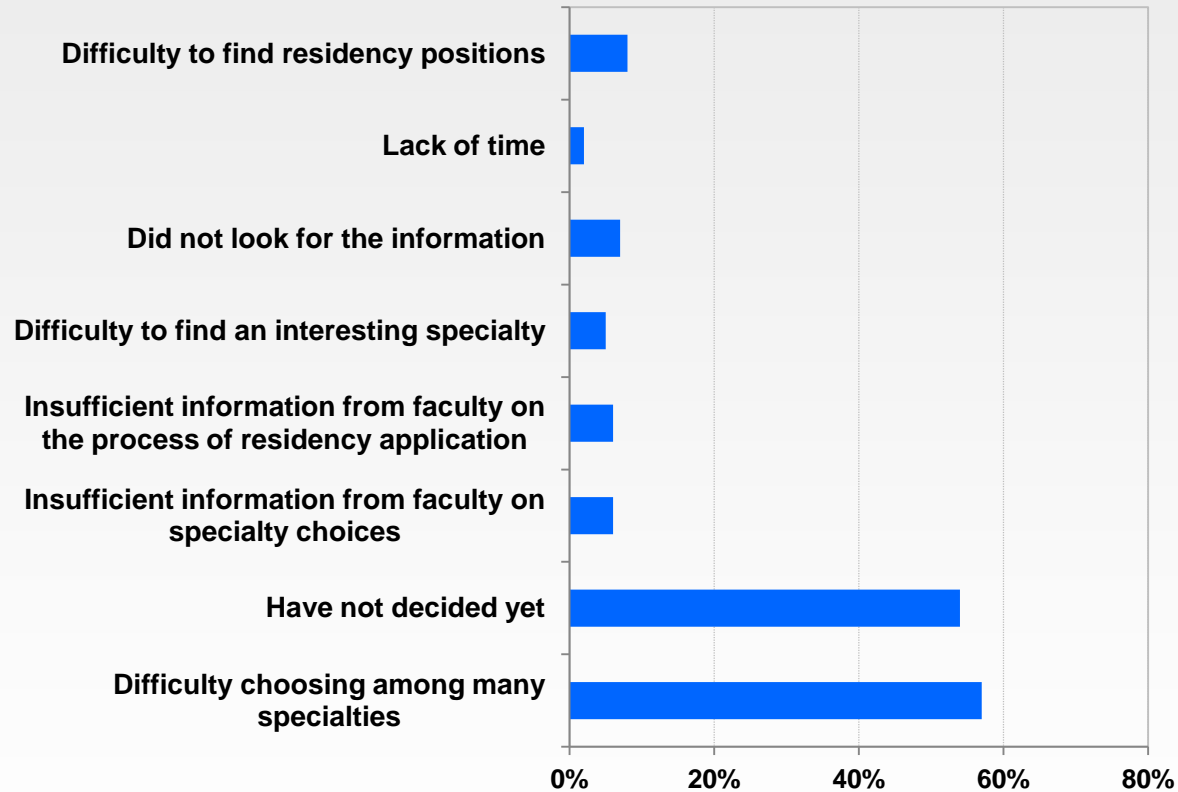


- A Difficulty choosing among many specialties
- B Have not decided yet
- C Insufficient information from faculty on specialty choices
- D Insufficient information from faculty on the process of residency application
- E Difficulty to find an interesting specialty
- F Did not look for the information
- G Lack of time
- H Difficulty to find residency positions

* Percentages based on number of students who indicated having not made a specialty choice

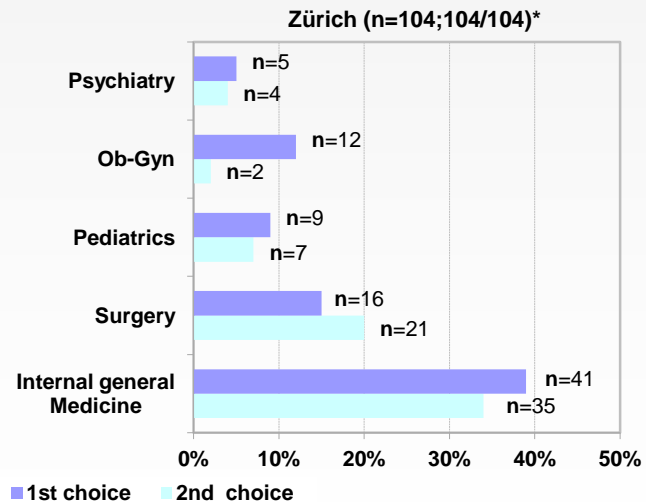
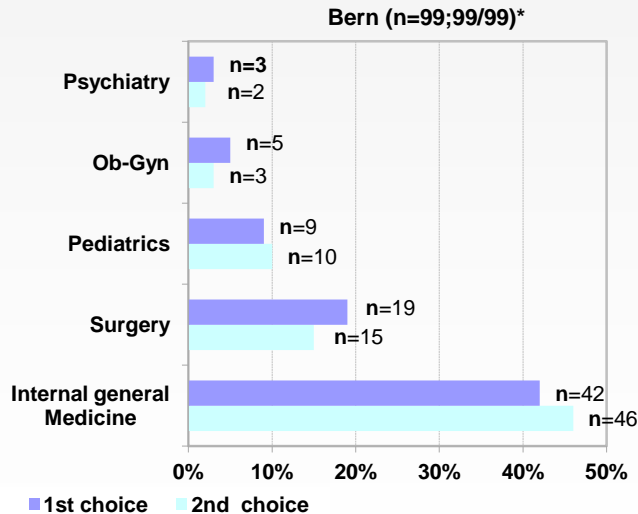
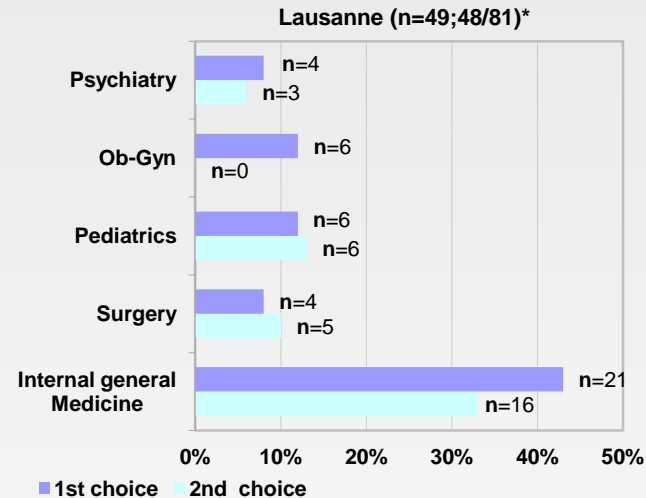
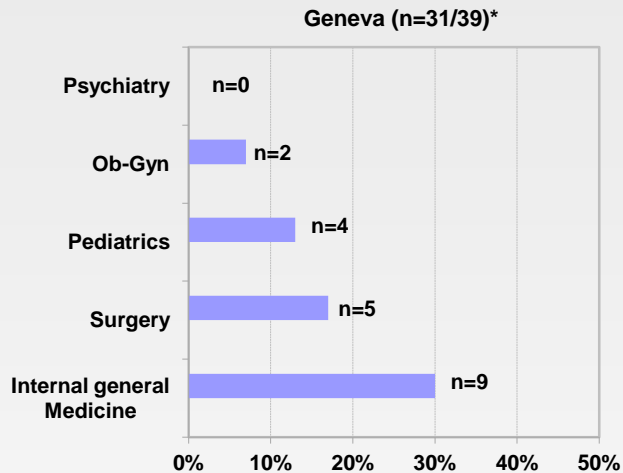
Reasons for not making a specialty choice

All 4 faculties (N=120/323)*



* Percentages based on number of students who indicated having not made a specialty choice

Specialty 1st and 2nd choices By faculty (N)

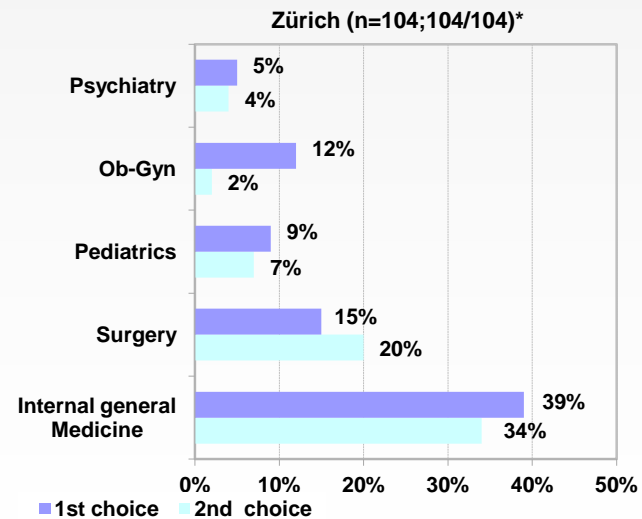
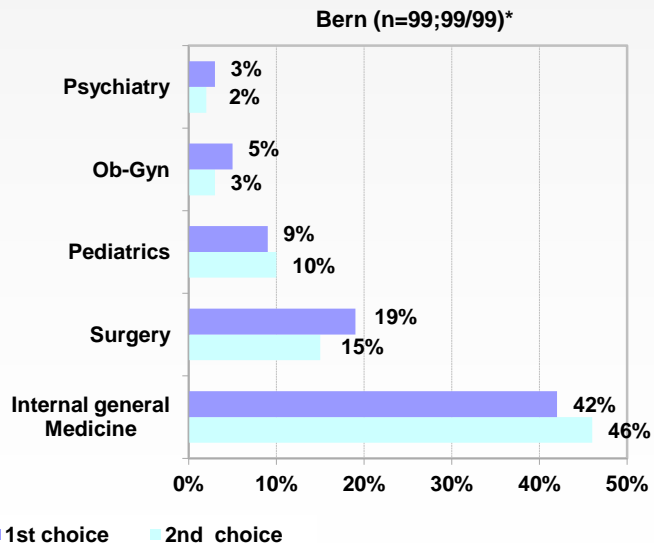
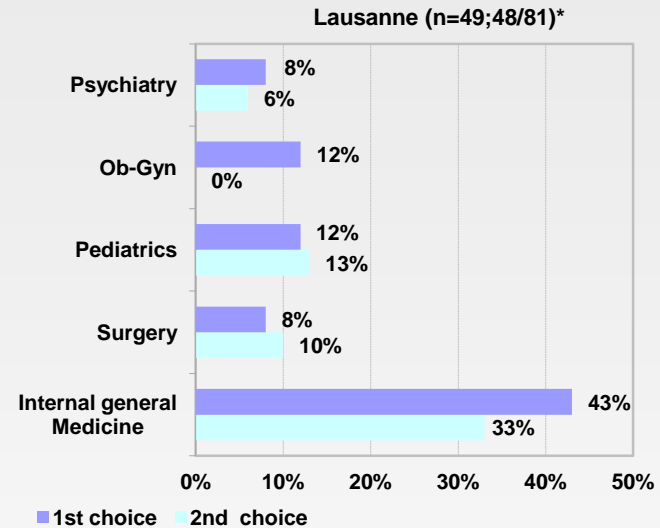
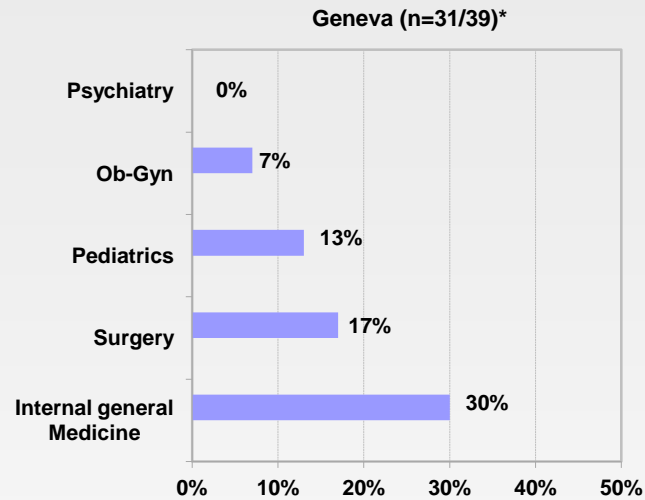


* N= No of students who make the 1st choice; No of students who make the 2nd choice; No of students who filled out the questionnaire

Note: - Several students who indicated having not made a specialty choice did, however, select a specialty

- In Geneva, only the first choice was asked to the students

Specialty 1st and 2nd choices By faculty (%)



* N= No of students who make the 1st choice; No of students who make the 2nd choice; No of students who filled out the questionnaire

Note: - Several students who indicated having not made a specialty choice did, however, select a specialty

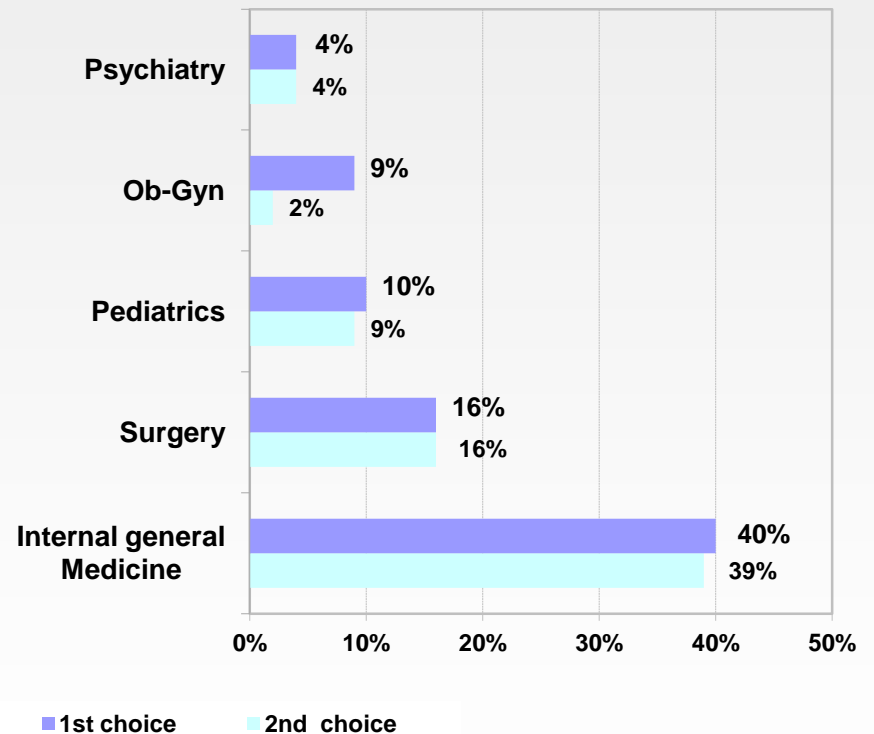
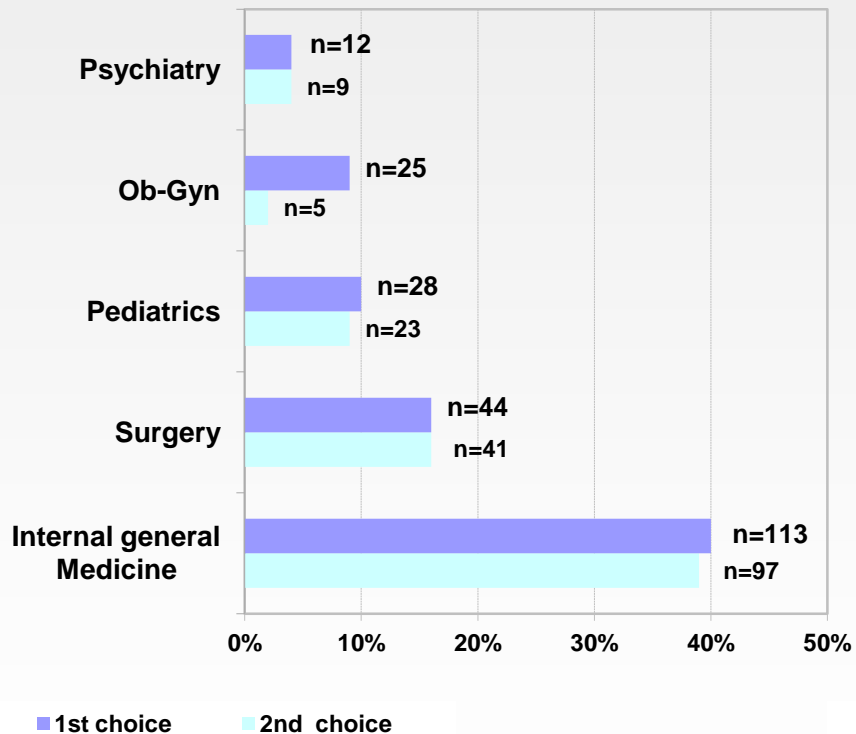
- In Geneva, only the first choice was asked to the students

Specialty 1st and 2nd choices

All 4 faculties (N=282; 251; 323)*

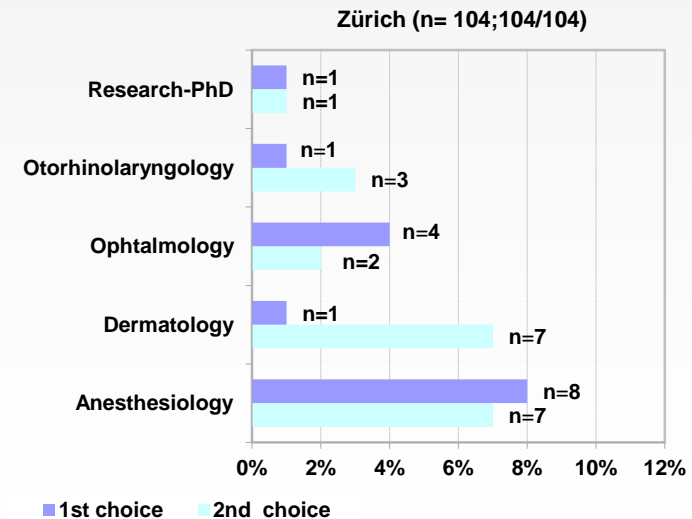
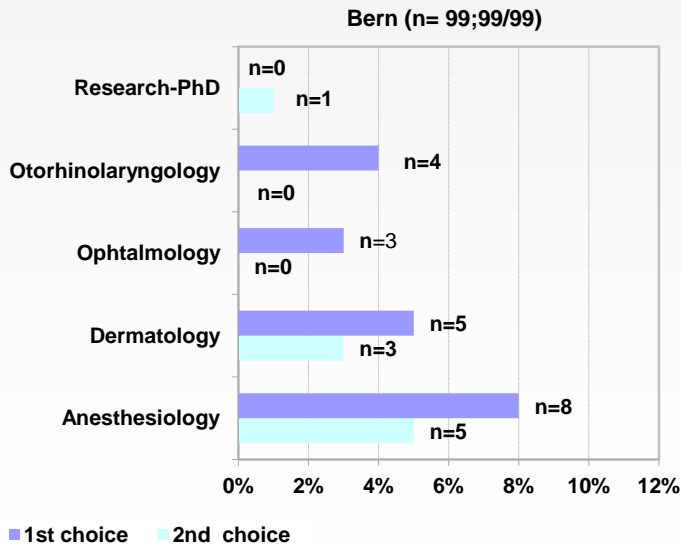
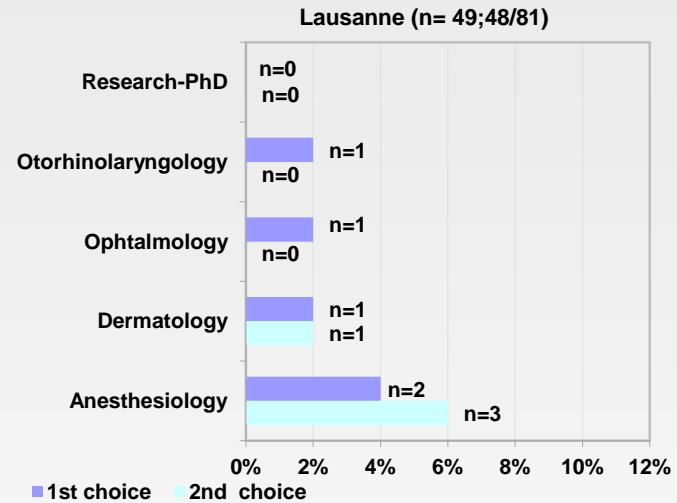
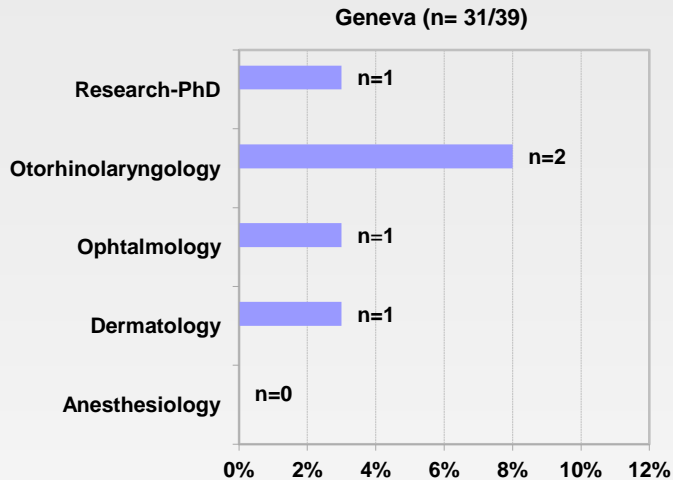
N

%



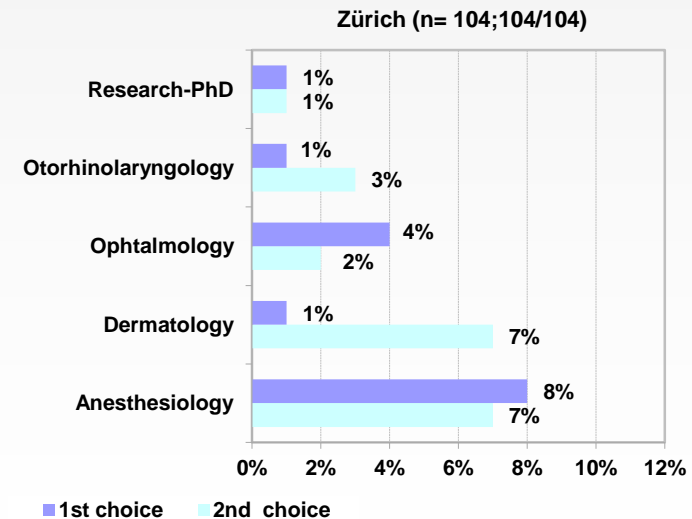
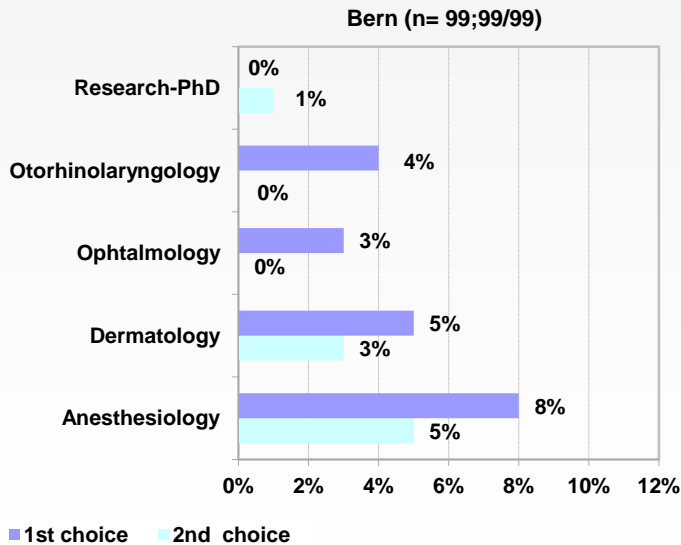
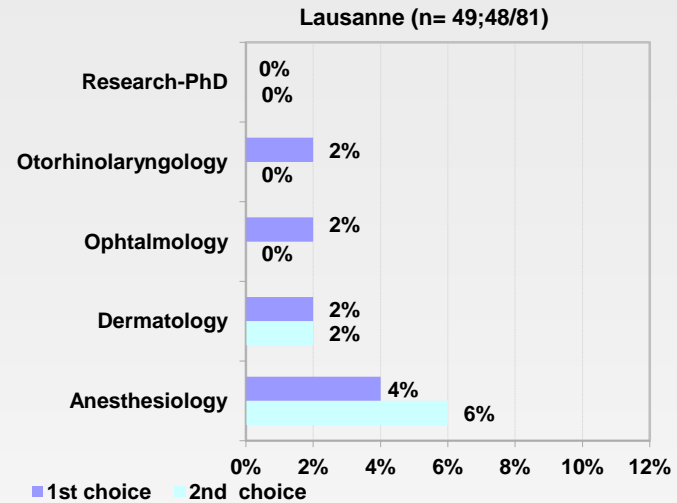
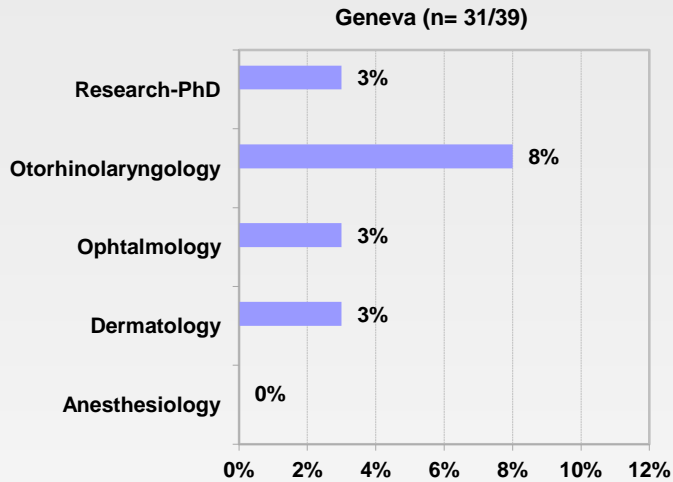
* N= No of students who make the 1st choice; No of students who make the 2nd choice; No of students who filled out the questionnaire
 Note: Several students who indicated having not made a specialty choice did, however, select a specialty

Subspecialty 1st and 2nd choices By faculty (N)



Note : - Not listed are subspecialties not selected by the students or having an N ≤ 1 as 1st or 2nd choice.
- In Geneva, only the first choice was asked to the students

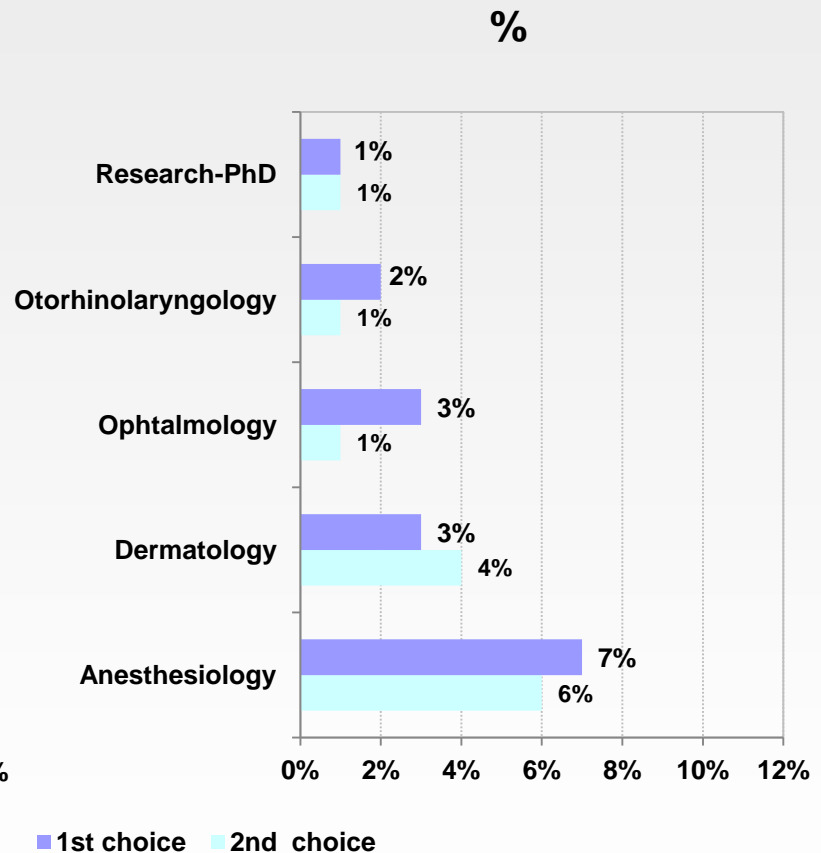
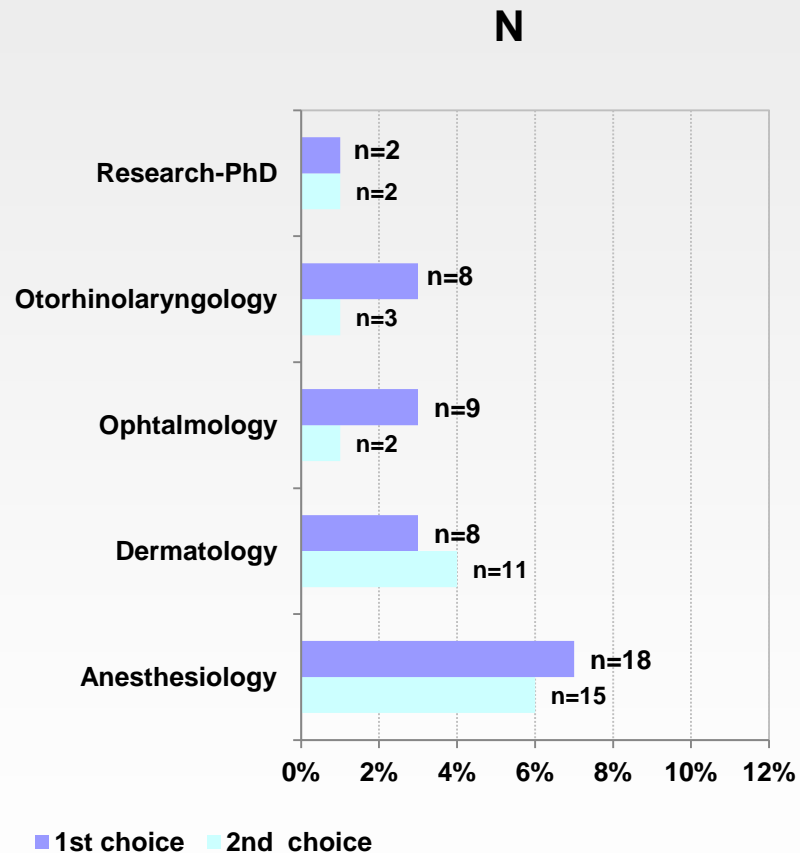
Subspecialty 1st and 2nd choices By faculty (%)



Note : - Not listed are subspecialties not selected by the students or having an N ≤ 1 as 1st or 2nd choice.
- In Geneva, only the first choice was asked to the students

Subspecialty 1st and 2nd Choices

All 4 faculties (N=282; 251; 327)



Note : Not listed are subspecialties not selected by the students or having an $N \leq 1$ as 1st or 2nd choice.

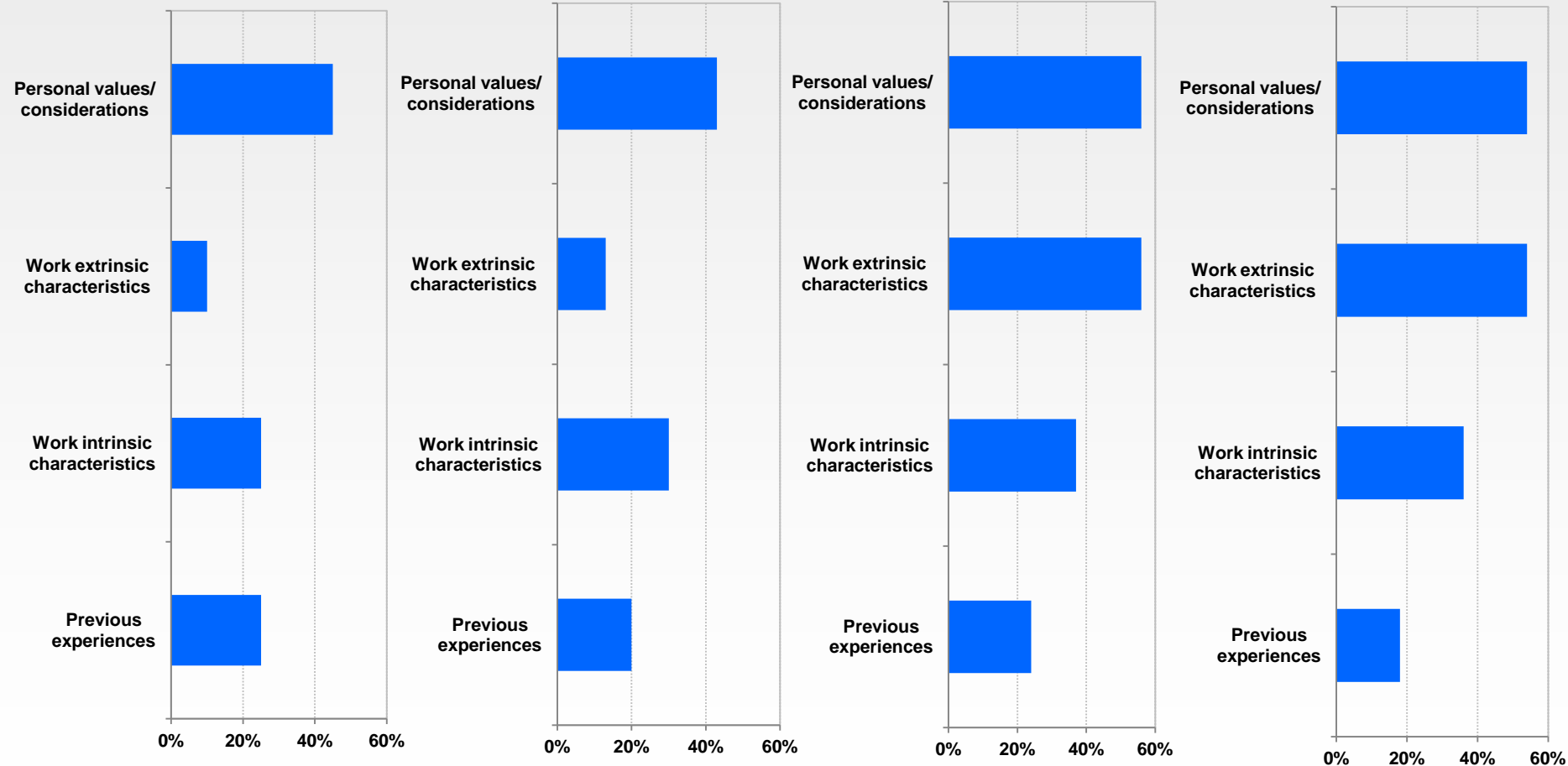
Reasons for specialty choice By faculty

Geneva (N=31)

Lausanne (49)

Bern (N=99)

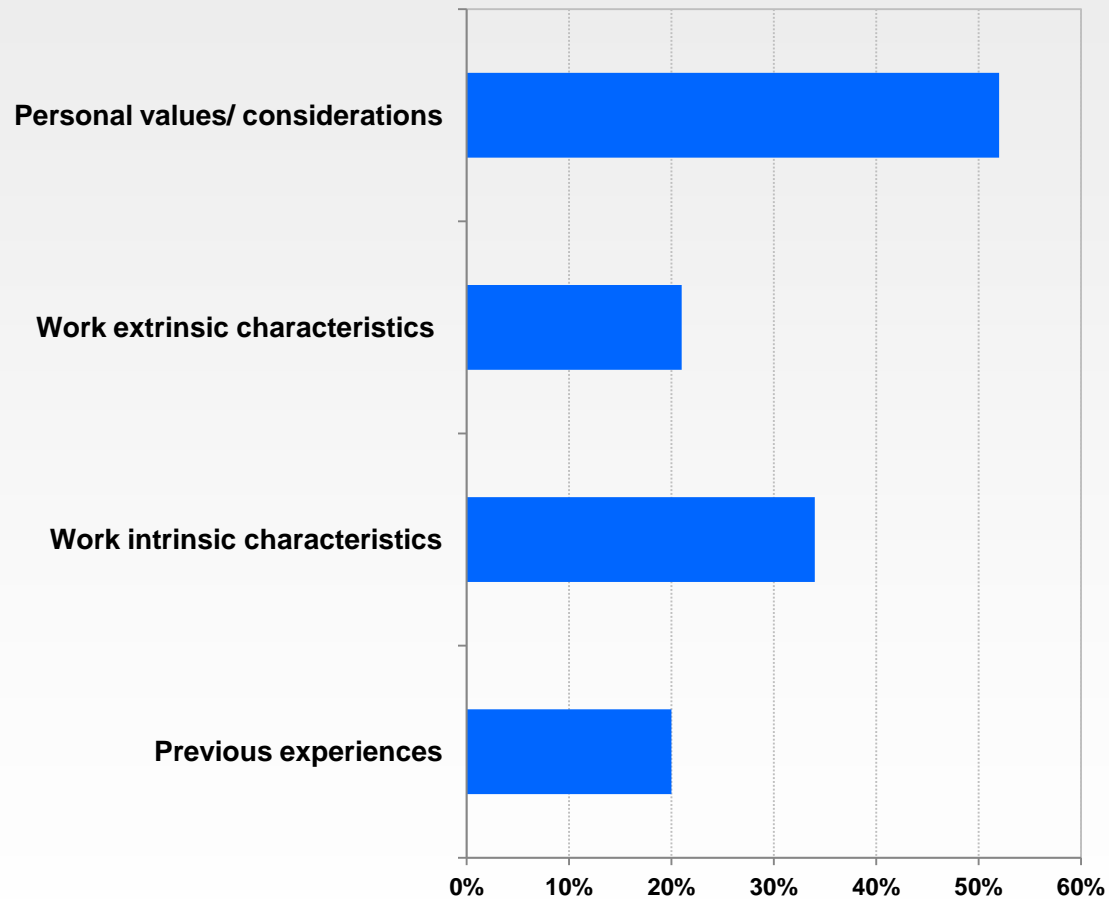
Zürich (N=104)



* Percentages based on the number of students having made a specialty choice

Reasons for specialty choice

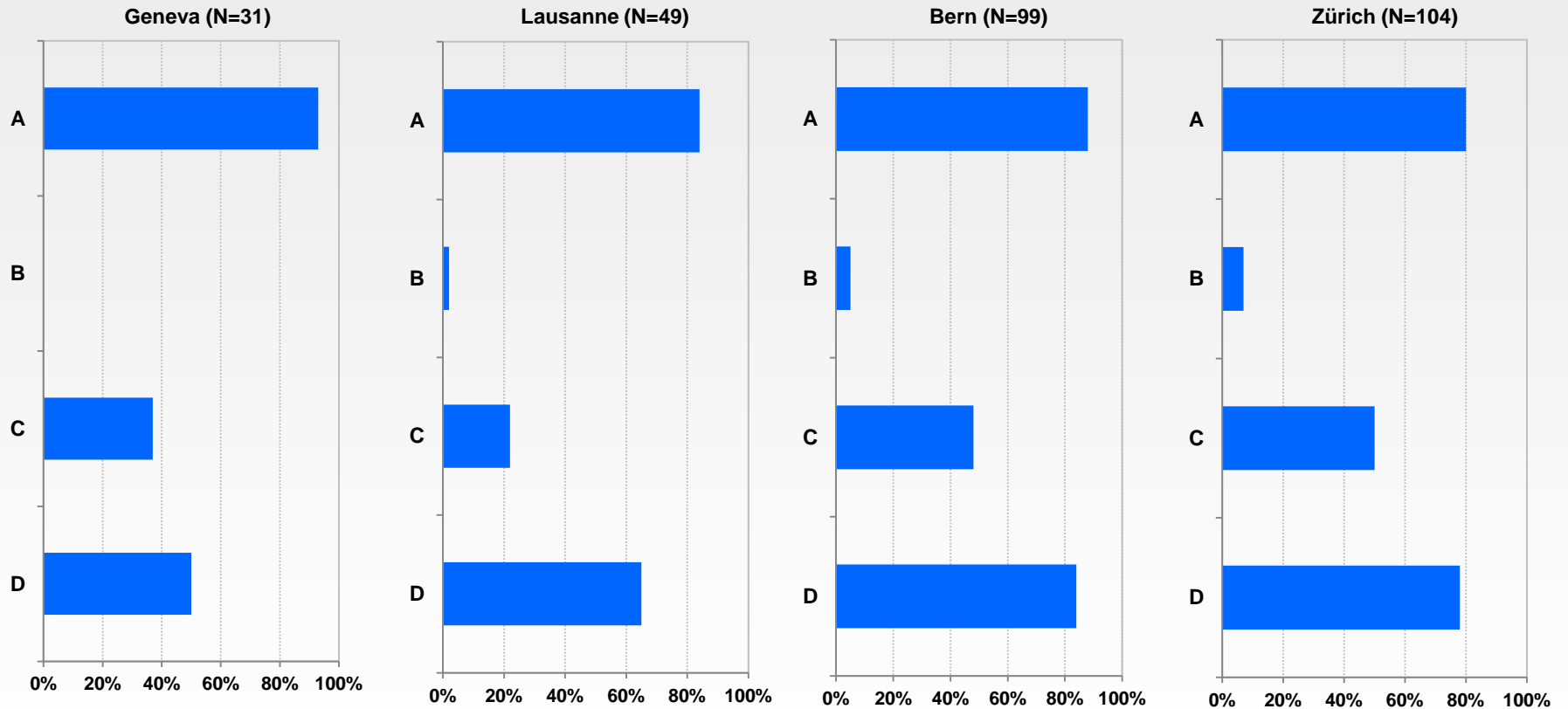
All 4 faculties (N=282/323)*



* Percentages based on the number of students having made a specialty choice

Reasons for specialty choice: Personal values/considerations

By faculty



A Passionate for medicine

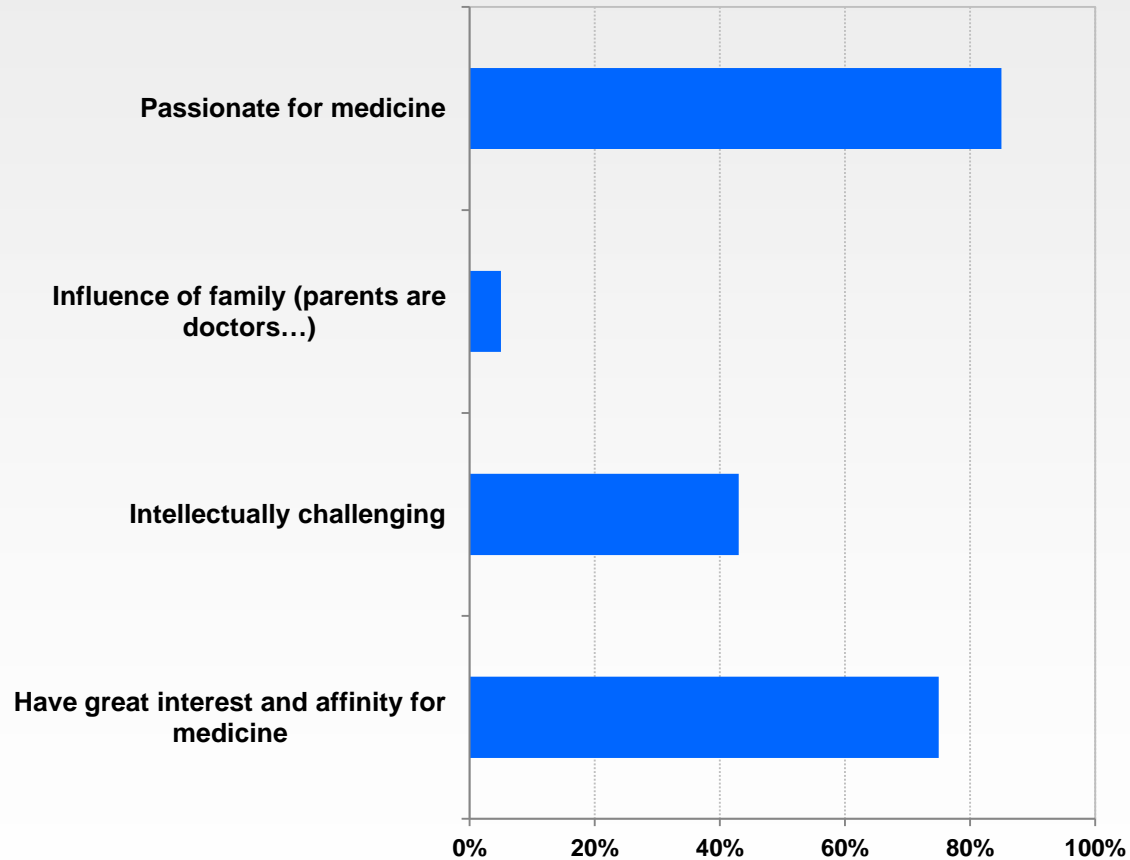
B Influence of family (parents are doctors...)

C Intellectually challenging

D Have great interest and affinity for medicine

Reasons for specialty choice: Personal values/considerations

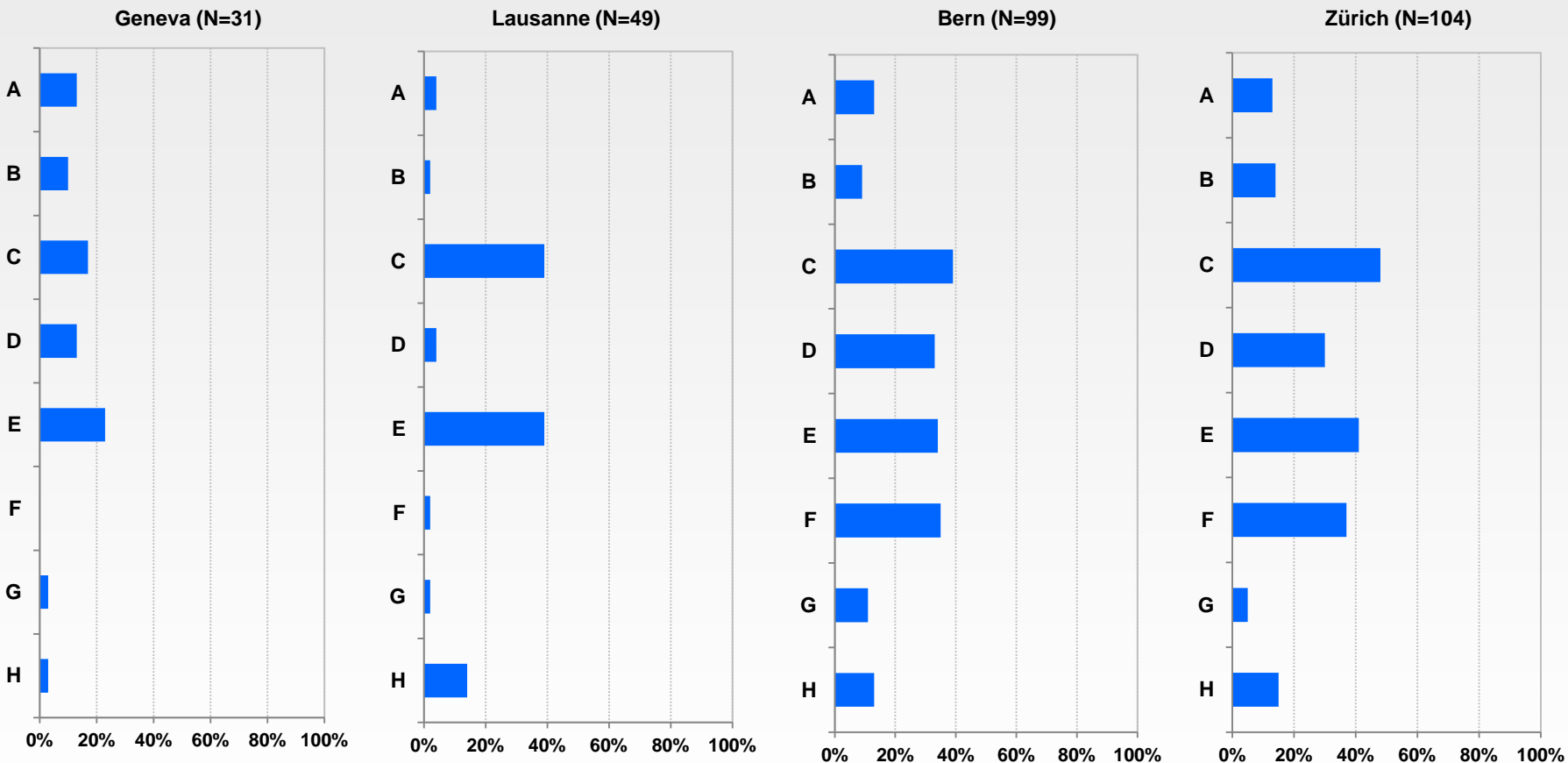
All 4 faculties (N=283/323)*



* Percentages based on the number of students having made a specialty choice

Reasons for specialty choice: Work extrinsic characteristics

By faculty



A Career advancement and competitiveness

B Financial security

C Working conditions (schedule, private practice/hospital, full/part time)

D Working environment

E Lifestyle (family-work equilibrium)

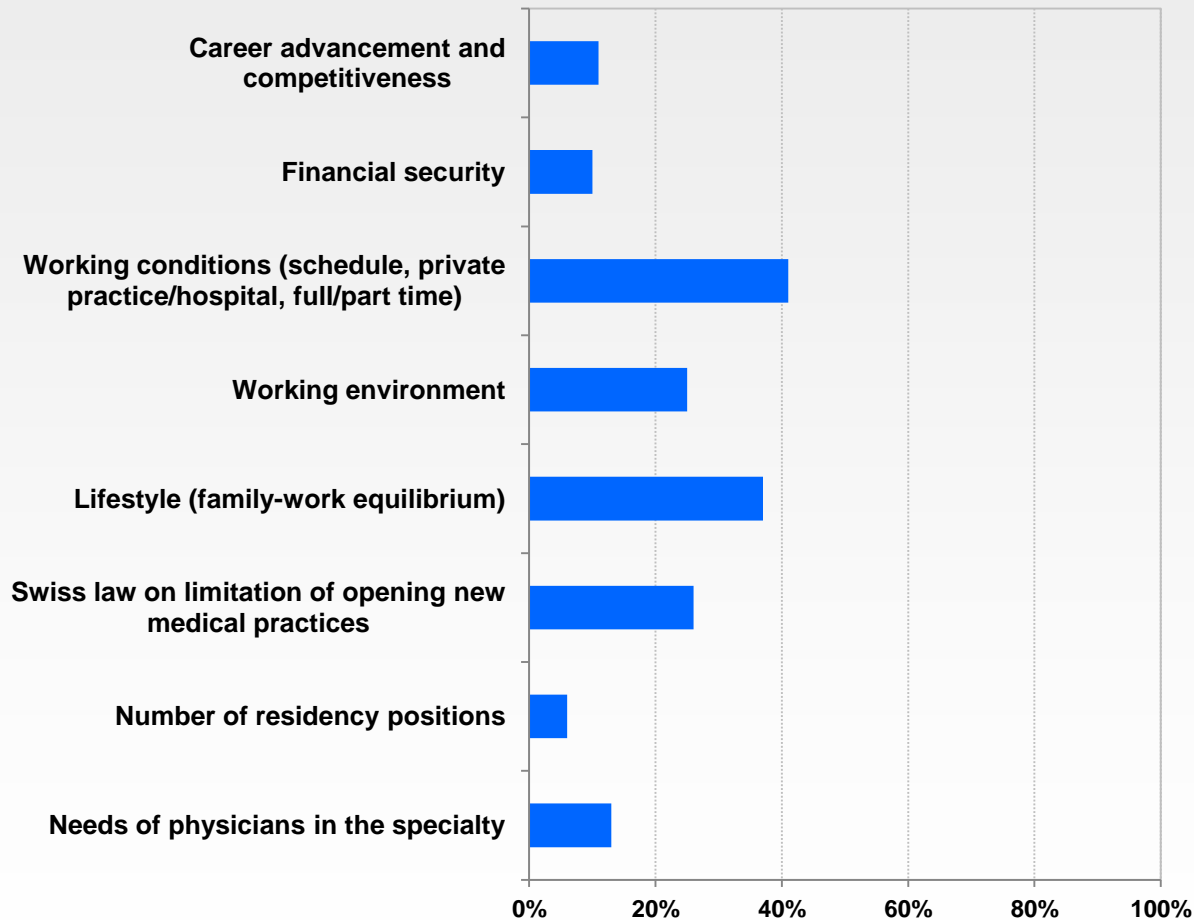
F Swiss law on limitation of opening new medical practices

G Number of residency positions

H Needs of physicians in the specialty

Reasons for specialty choice: Work extrinsic characteristics

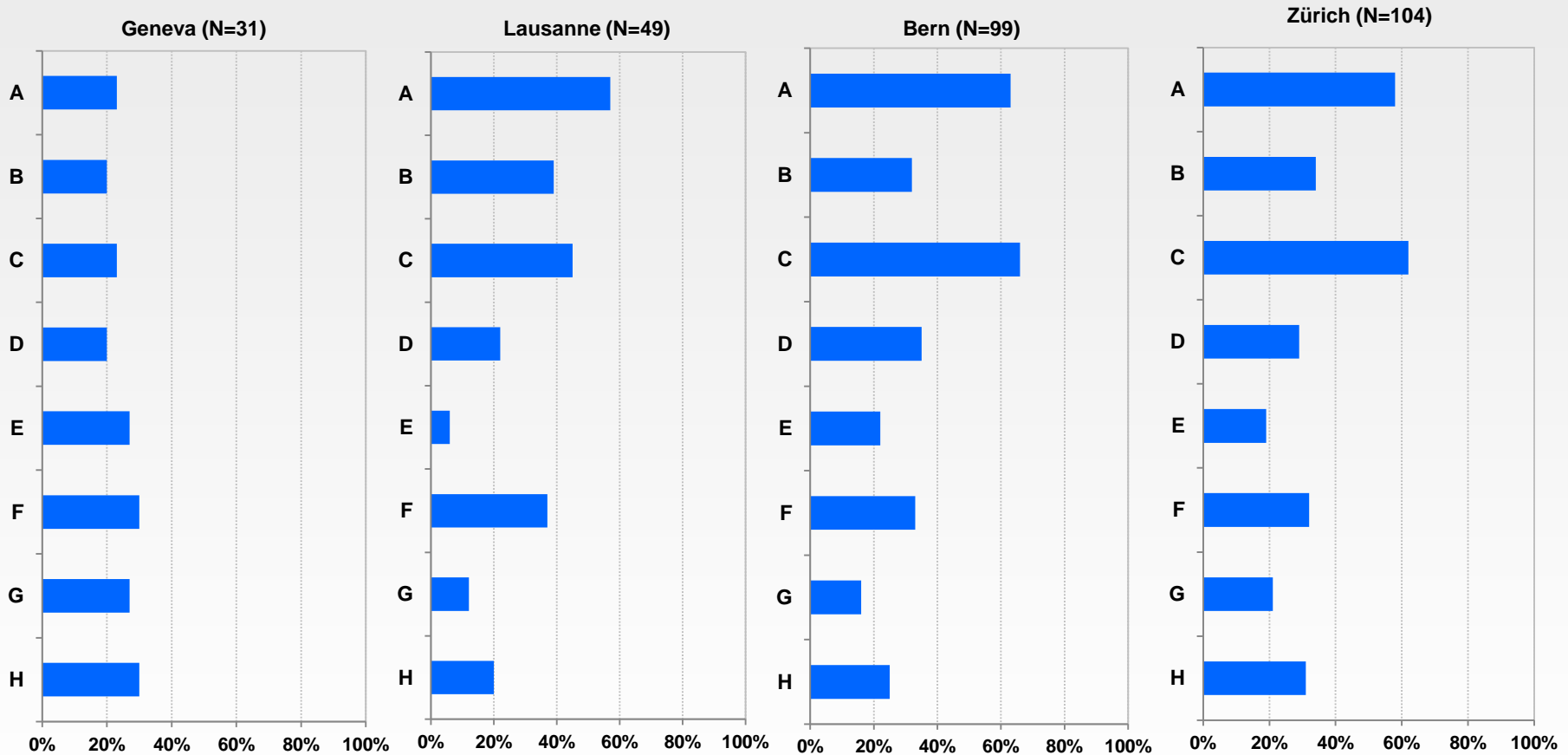
All 4 faculties (N=282/323)*



* Percentages based on the number of students having made a specialty choice

Reasons for specialty choice: Work intrinsic characteristics

By faculty



A Interpersonal relationship and contact with patients

B Multidisciplinarity

C Variety of activities, experiences, and types of pathologies...

D Team work

E Tied to research

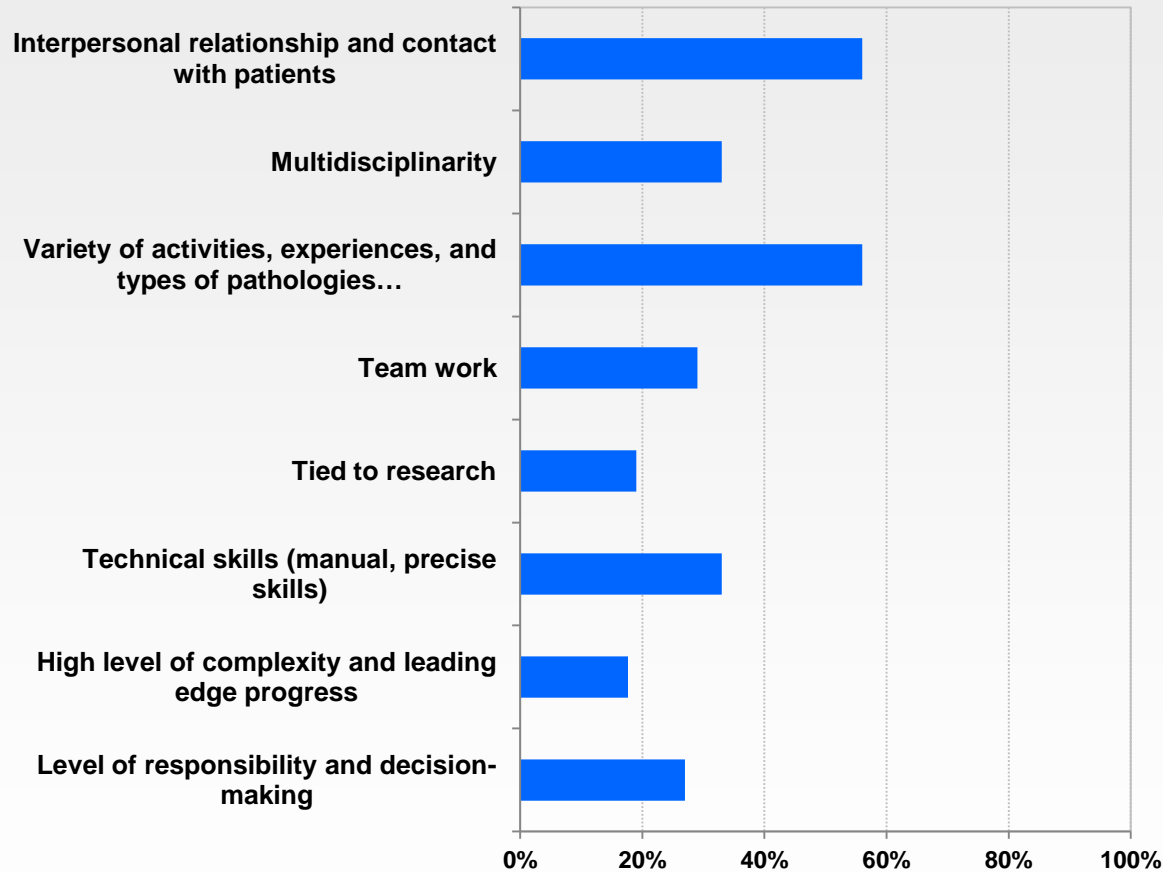
F Technical skills (manual, precise skills)

G High level of complexity and leading edge progress

H Level of responsibility and decision-making

Reasons for specialty choice: Work intrinsic characteristics

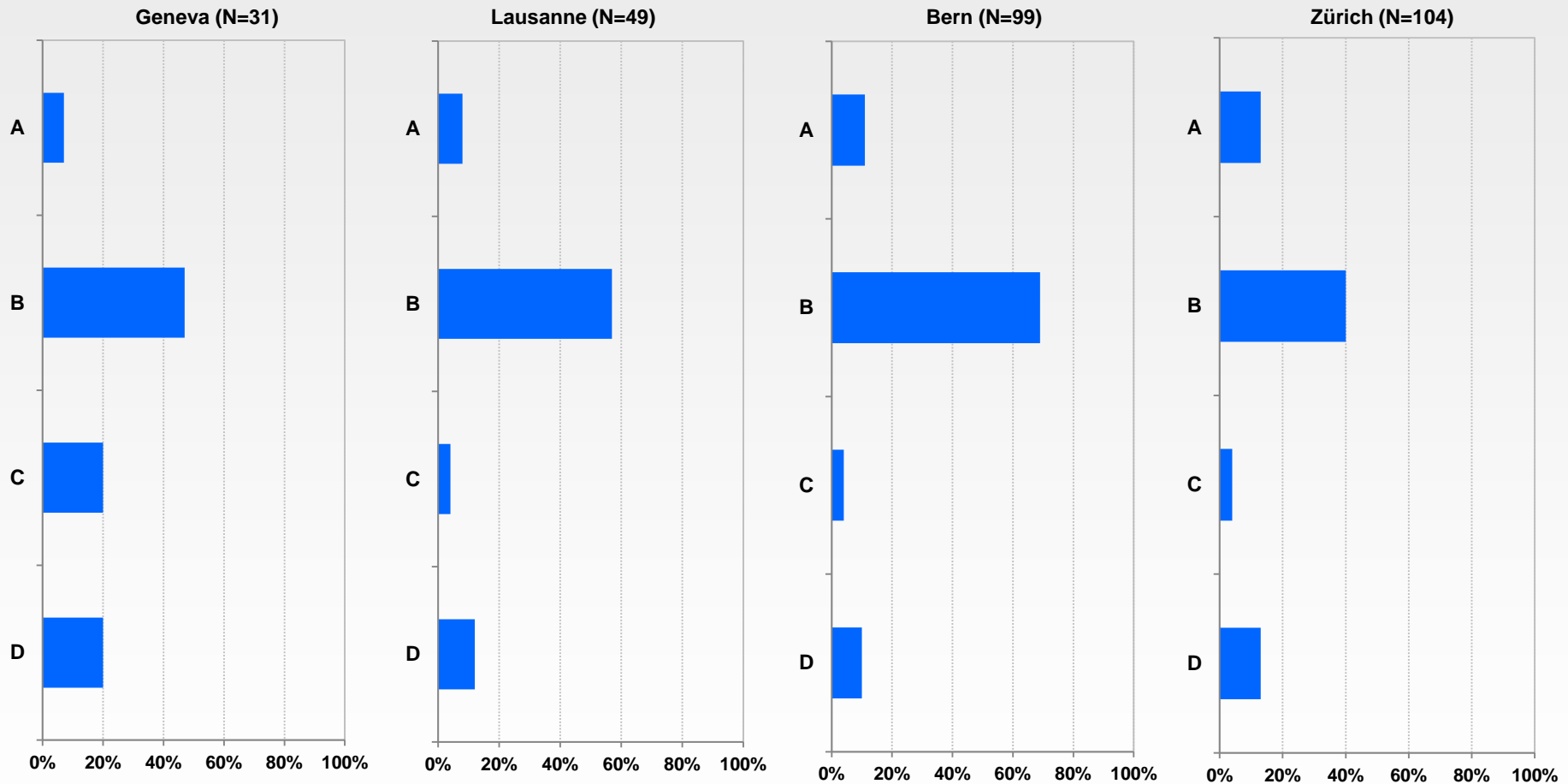
All 4 faculties (N=282/323)*



* Percentages based on the number of students having made a specialty choice

Reasons for specialty choice: Previous experiences

By faculty



A Personal experiences (accident, disease...)

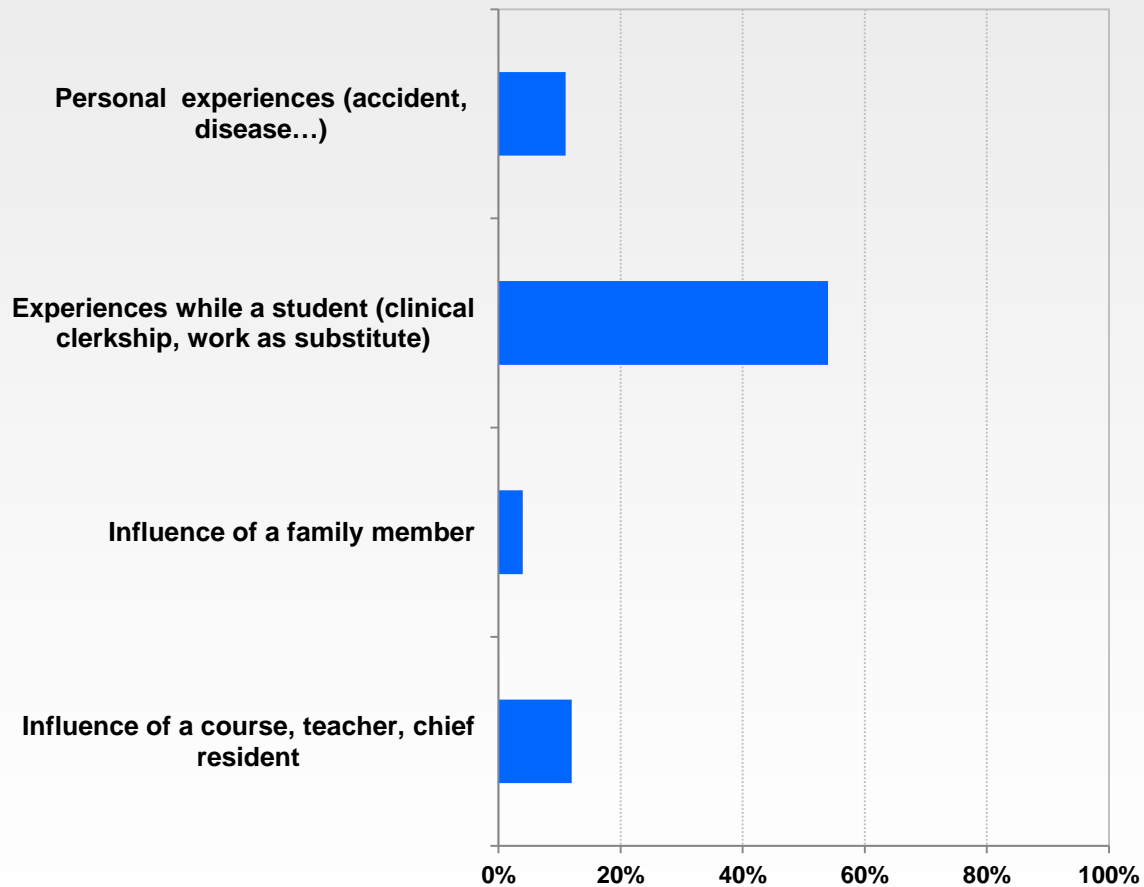
B Experiences while a student (clinical clerkship, work as substitute)

C Influence of a family member

D Influence of a course, teacher, chief resident

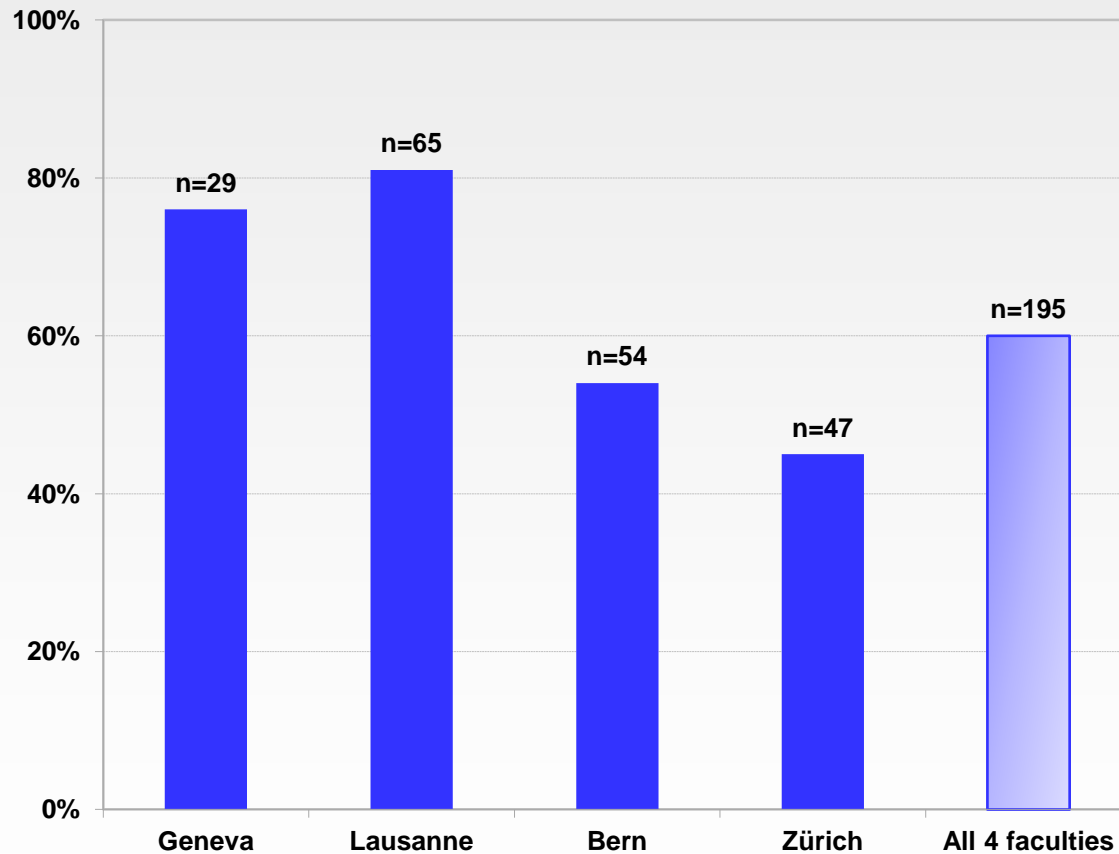
Reasons for specialty choice: Previous experiences

All 4 faculties (N=282/323)*

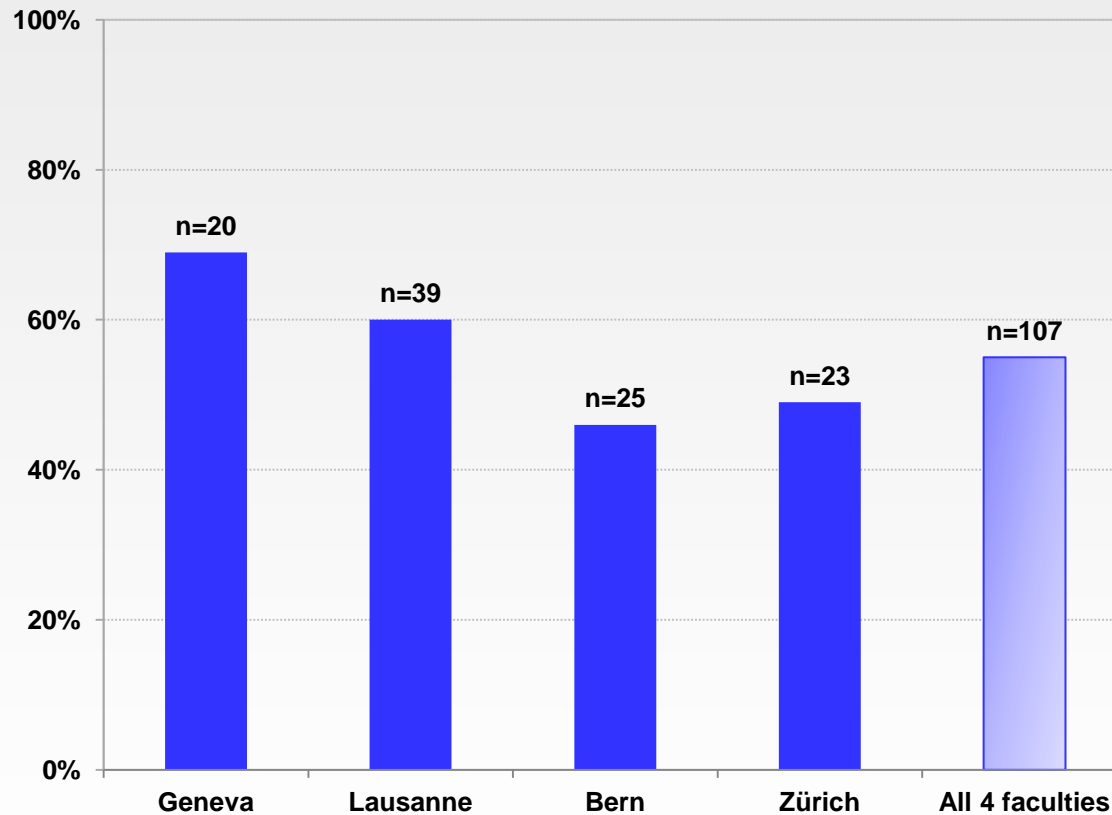


* Percentages based on the number of students having made a specialty choice

N and % of students who had been accepted to a first- year residency training program* (N=195/323)



N and % of students with first year residency training in their selected specialty (N=107/195)*



* Percentages based on the number of students accepted to a first-year residency training program

First year residency training: Choice of location (canton and linguistic region) By faculty

		Cantons**					Linguistic region**		
		Geneva	Vaud	Bern	Zürich	Other***	Switzerland French-speaking	Switzerland German-speaking	Switzerland Italian-speaking
FACULTY	Geneva (28/30)*	54% (15)	19% (5)	0% (0)	7% (2)	20% (6)	93% (26)	7% (2)	0% (0)
	Lausanne (65/49)*	2% (1)	44% (29)	6% (4)	2% (1)	46% (30)	85% (55)	11% (7)	5% (3)
	Bern (54/99)*	0% (0)	0% (0)	59% (32)	9% (5)	26% (17)	9% (5)	91% (49)	0% (0)
	Zürich (47/104)*	0% (0)	0% (0)	4% (2)	47% (22)	49% (23)	4% (2)	96% (45)	0% (0)

* Number of students who found a residency position/ Number of students who made their specialty choice

** Percentages based on the number of students who indicated the location of their residency.

*** Other Swiss cantons

Specialty and residency training choices

All 4 faculties

Residency found		Residency not found		
195 (61%)		126 (39%)		
Residency in selected specialty	Residency not in selected specialty			
107 (55%)	88 (45%)			
	Have made specialty choice	Have not made specialty choice	Have made specialty choice	Have not made specialty choice
	66* (34%)	17* (11%)	51 (41%)	75 (59%)
N= 321 (2 with no completed answers)				

Specialty and residency training choices

All 4 faculties

Specialty selected		Specialty not selected			
202 (63%)		120 (37%)			
Residency found		Residency not found	Residency found		
Residency not found		Residency not found			
149*(75%)		51* (25%)	45 (38%)	75 (62%)	
Residency in selected specialty	Residency not in selected specialty				
83 (42%)	66(33%)				
N= 322 (1 with no completed answers)					

Main conclusions: Career plan (1)

■ **Medicine as a career:**

- Most Swiss students chose to study medicine between the age of 16 and 21
- About 80% chose medicine with little or no hesitation

■ **Choice of type of career plan:**

- 61% chose to do clinical practice
- 20% chose to be in an academic career
- 1% chose to be in a non-academic career
- 17% were undecided

Main conclusions: Type of career plan (2)

- For those who chose an **academic career**, most students (85%) chose to be involved in the area of clinical science (vs. basic science) related practice, teaching and research.

- For those who chose **clinical practice as a career**:
 - 42% chose to practice in a group of 3 or more physicians
 - 40% chose to be employed in a hospital
 - 11% chose to be a partner with an other physician
 - 4% chose to practice in solo
 - 3% chose to practice in a “managed care” group

Main conclusions: Type of career plan (3)

Students' main reasons for choosing career plan

- **Personal values/ considerations (44%)**
 - Passionate for medicine (71%)

- **Work intrinsic characteristics (32%)**
 - Team work (57%)
 - Interpersonal relationship and contact with patients (44%)
 - Variety of activities, experiences, and types of pathologies... (41%)
 - Multidisciplinarity (28%)
 - Level of responsibility and decision-making (26%)
 - High level of complexity and leading edge progress (23%)
 - Technical skills (manual, precision skills) (20%)

- **Work extrinsic characteristics (26%)**
 - Working conditions (schedule, private practice/hospital, full/part time) (62%)
 - Lifestyle (family-work equilibrium) (54%)
 - Working environment (24%)

- **Previous experiences (13%)**
 - Experiences while a student (clinical clerkship, work as substitute) (32%)

Main conclusions: Specialty choice (4)

- For Bern and Zürich, about **half** of the students **chose their medical specialty** in their senior years while the other half did not.
- For Lausanne and Geneva, about **three fourths** of the students **chose their medical specialty** in their senior years while one third did not.
- Main reasons for not choosing specialty:
 - Difficulty **choosing among many** specialties
 - Having **not made the decision** yet

Main conclusions: Main specialty choice (5)

- 40% Internal general Medicine
- 16% Surgery
- 10% Pediatrics
- 9% Obstetrics-Gynecology
- 4% Psychiatry

Main conclusions: Specialty choice (6)

Main reasons for specialty choice

- **Personal values/ considerations (52%)**
 - Passionate for medicine (85%)
 - Have great interest and affinity for medicine (75%)

- **Work intrinsic characteristics (34%)**
 - Variety of activities, experiences, and types of pathologies... (56%)
 - Interpersonal relationship and contact with patients (56%)
 - Technical skills (manual, precise skills) (33%)
 - Multidisciplinarity (33%)
 - Team work (29%)

- **Work extrinsic characteristics (21%)**
 - Working conditions (schedule, private practice/hospital, full/part time) (41%)
 - Lifestyle (family-work equilibrium) (37%)
 - Working environment (25%)

- **Previous experiences (20%)**
 - Experiences while a student (clinical clerkship, work as substitute) (54%)

Main conclusions:

Specialty and location of residency training (7)

■ Location of residency training:

- Most students tended to choose to do their first years of residency training in a canton of their respective main speaking language.
- In all 4 faculties, about half of the students (44%-59%) choose to stay in the canton of their undergraduate training. The other students had their first years of residency in different Swiss cantons.

Main conclusions:

Specialty and residency training choices (8)

- Of those students who **had selected** their **specialty** (63%):
 - Three fourths (75%) had found a residency program
 - Of those who had found a residency program, about half (42%) had a residency program in their selected specialty

- Of those students who **had not selected their specialty** (37%), about one third had found a residency program.

Main conclusions:

Specialty and residency training choices (9)

- About two thirds (61%) of the Swiss senior students had **found a residency program**.
- Of those who **had a residency program**, about half (55%) had their residency program in their selected specialty.
- Of those who **had not find a residency program** (39%), about half had selected a specialty.

Main conclusions:

Specialty and residency training choices (10)

Overall, it seems that:

- A third of the senior students (37%) had not made a firm choice of their specialty at the end of their training.
- Not finding a residency training program is rather dependent of whether the students had made a specialty choice or not.
- About half (55%) of the students started their residency in their selected specialty.
- Only 11% started their residency training program without having made their specialty.