

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

2012 Survey

Nu V. Vu, PhD & Michèle Germond, MSc

University of Geneva Faculty of Medicine

Unit of Development and Research in Medical Education (UDREM)

With the participation of

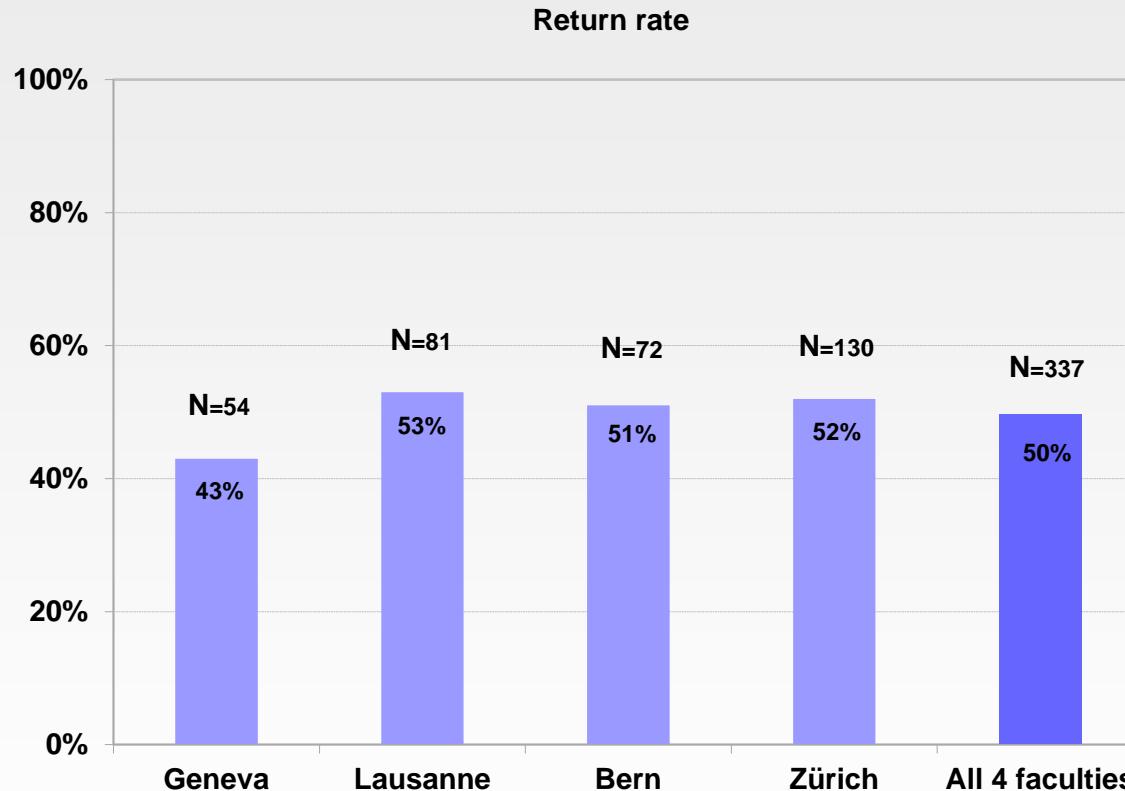
Raphael Bonvin, MD, MME - University of Lausanne Faculty of Medicine

Christina Kuhn, MD, MME - University of Zurich Faculty of Medicine

Christine Bögli, Lic. Phil., MME - University of Bern Faculty of Medicine

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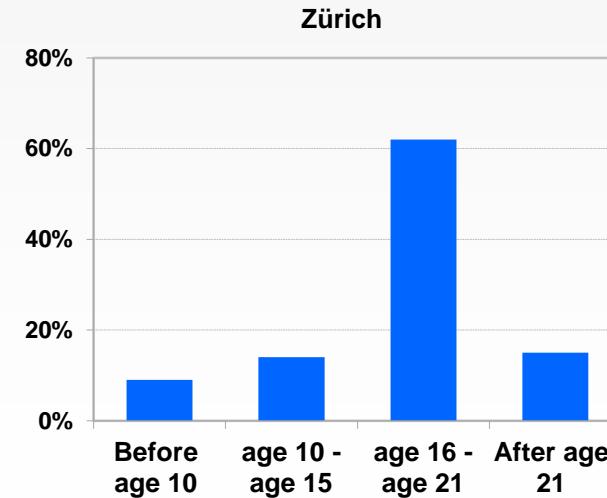
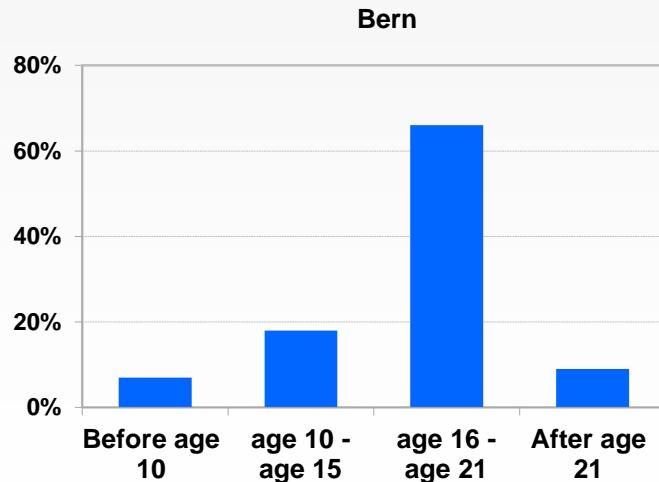
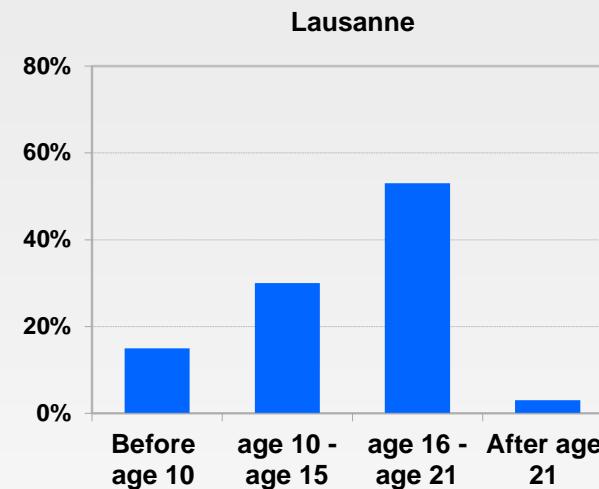
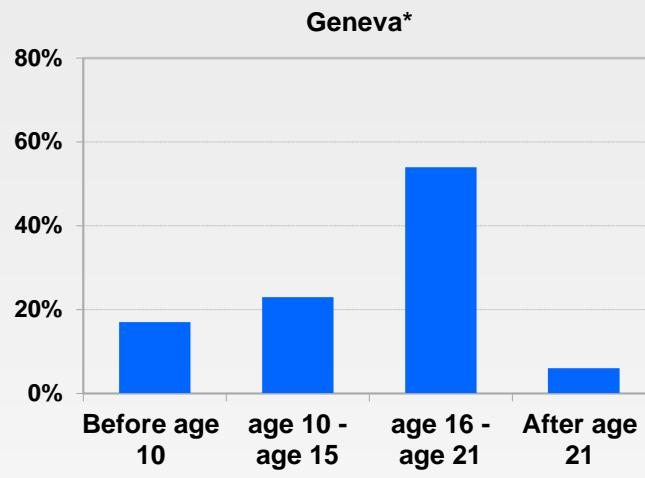
2012 survey conducted with students from the Faculty of Medicine of Lausanne, Bern, Zurich and Geneva*



* Geneva (N total = 125), Lausanne (N total = 154), Bern (N total = 141), Zurich (N total = 248) / Surveys administered in the 6th year

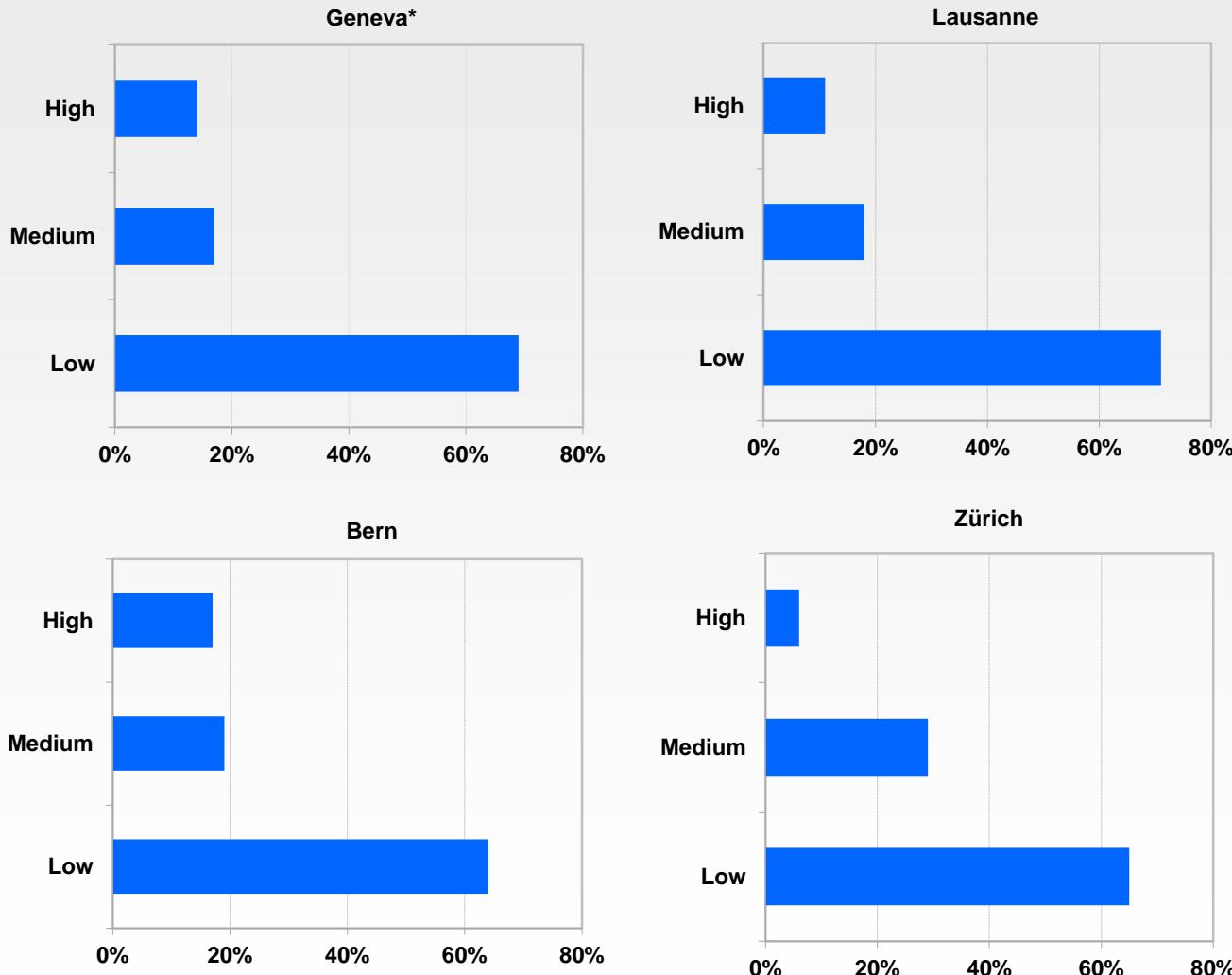
* The surveys for Lausanne and Geneva were administered on paper while the ones for Bern and Zurich were on-line

Age of decision to study medicine



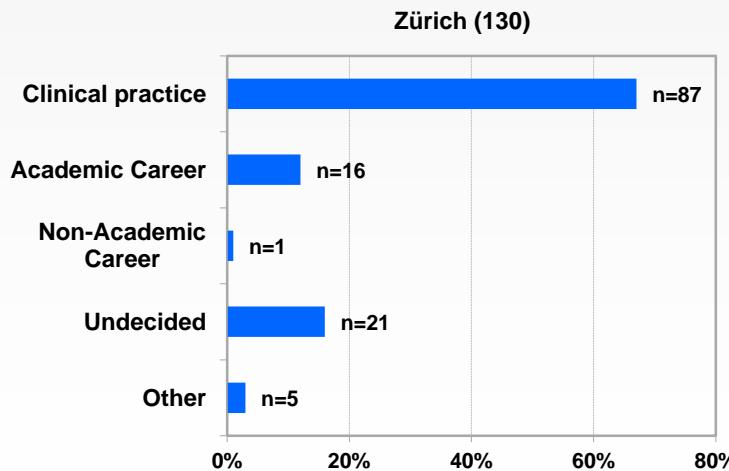
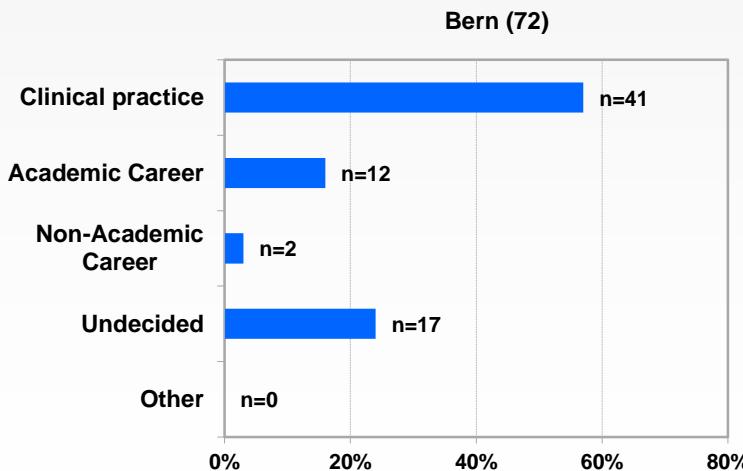
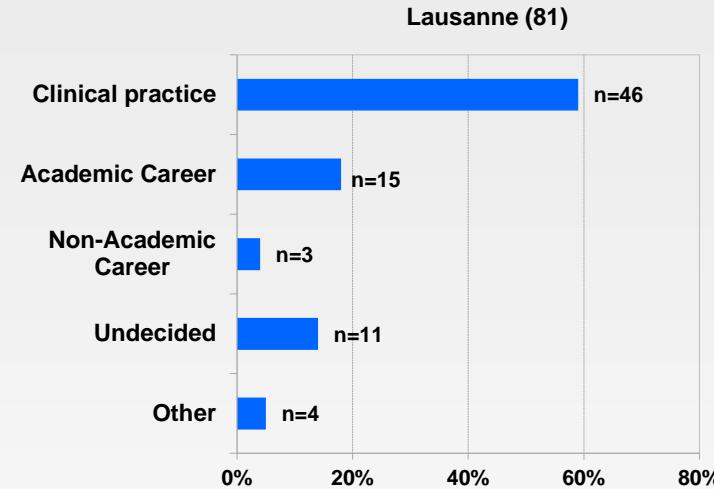
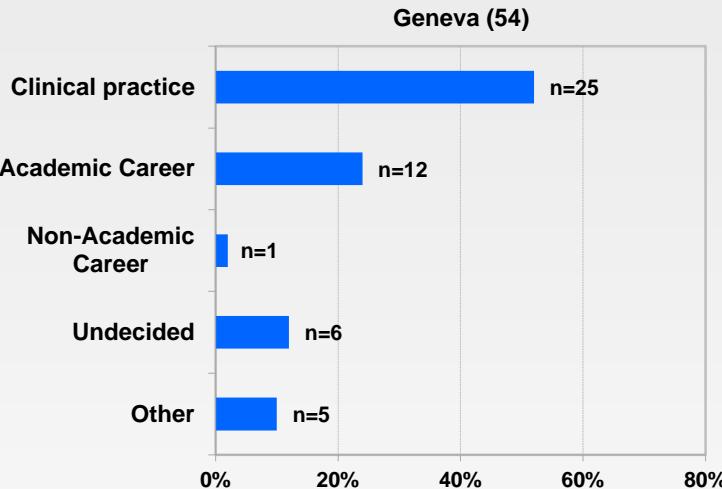
* This item was asked to the students in Geneva (n=155/167) at the end of their second year in a separate survey questionnaire

Degree of hesitation to study medicine

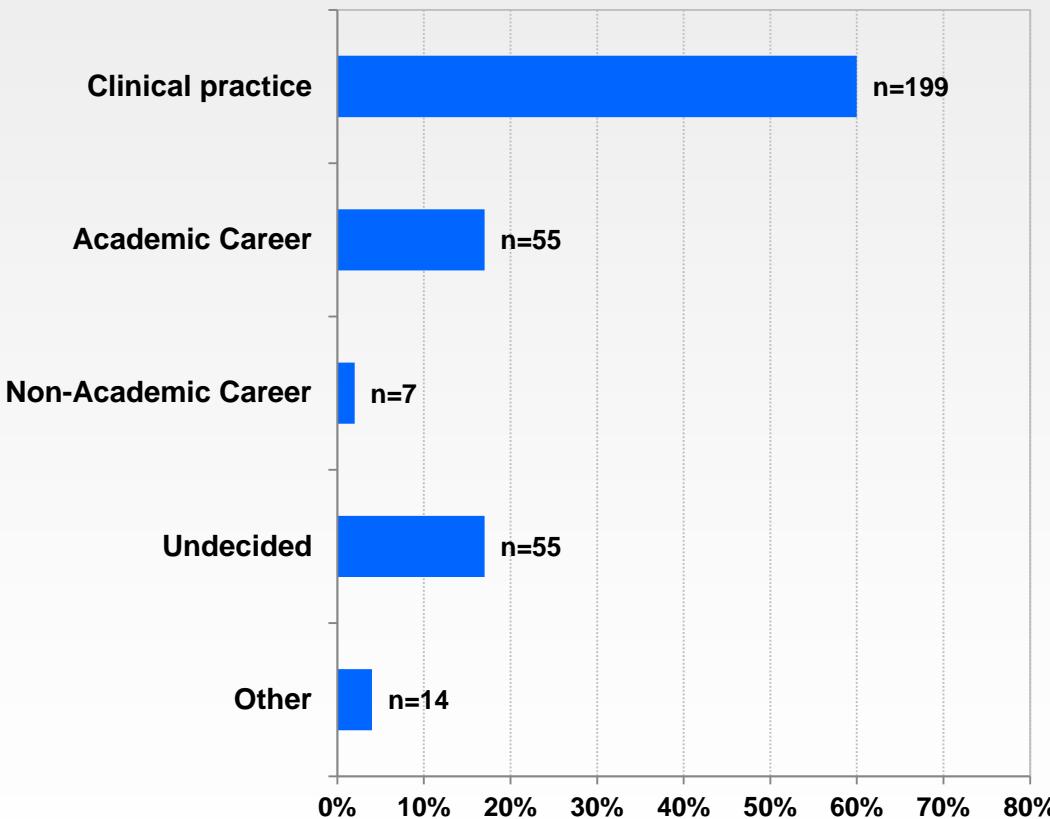


* This item was asked to the students in Geneva (n=155/167) at the end of their second year in a separate survey questionnaire

Choice of career plan By faculty

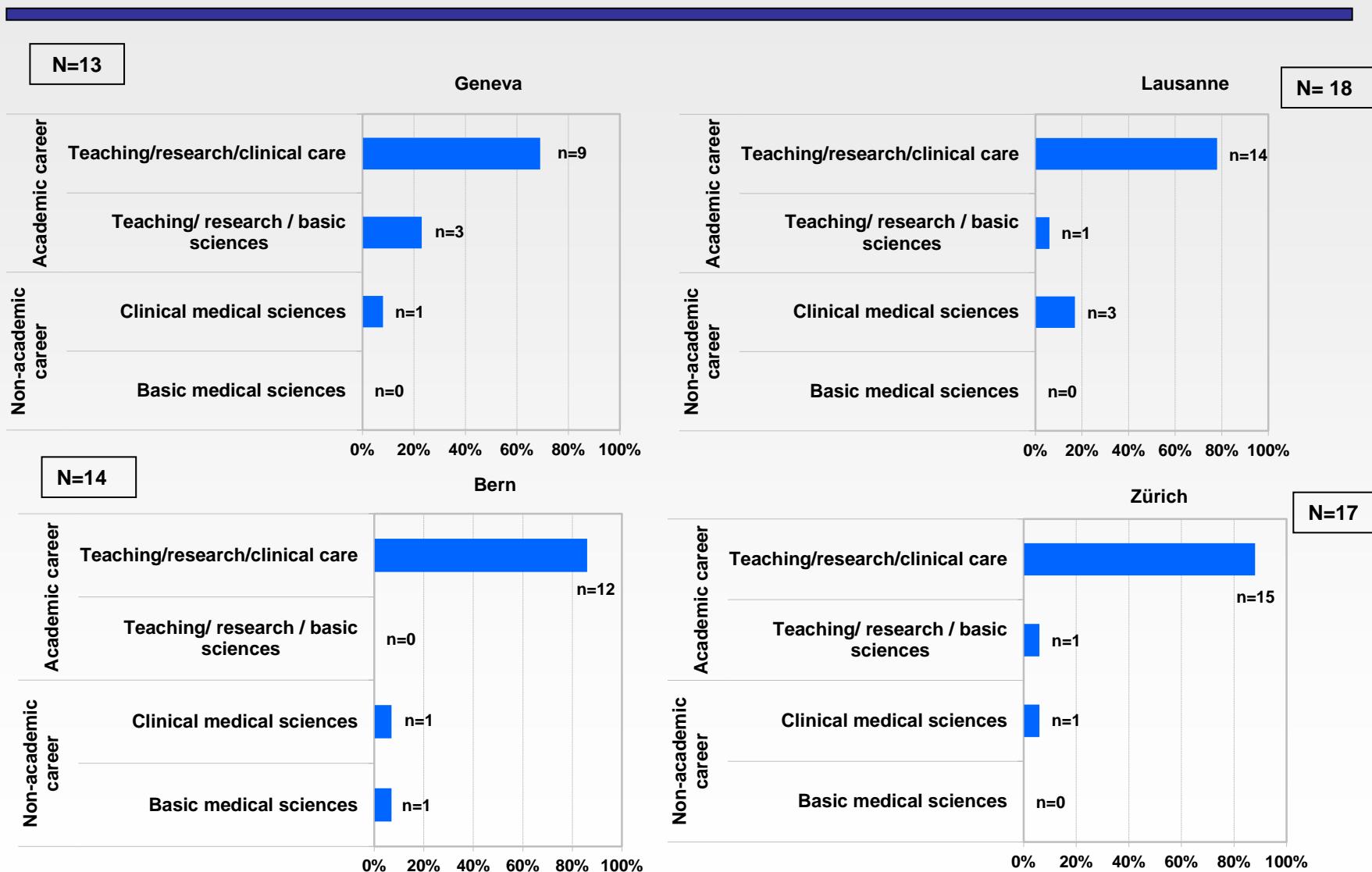


Choice of career plan All 4 faculties (N=337)



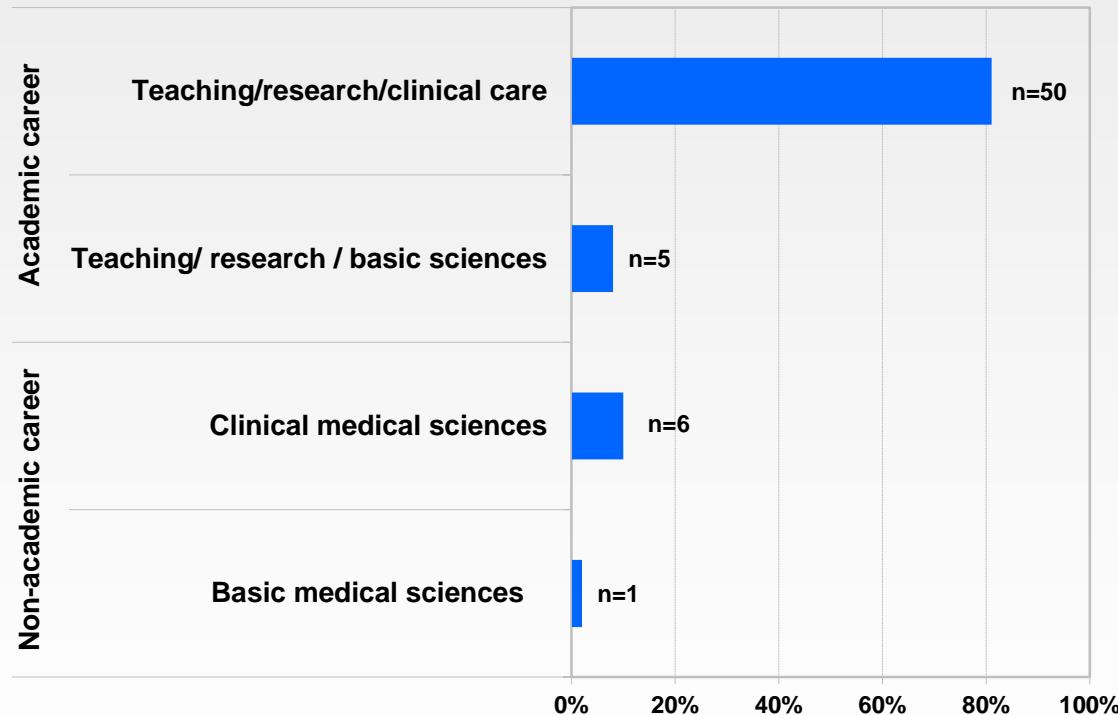
Choice within academic vs. non-academic career plan

By faculty



Choice within academic vs. non-academic career plan

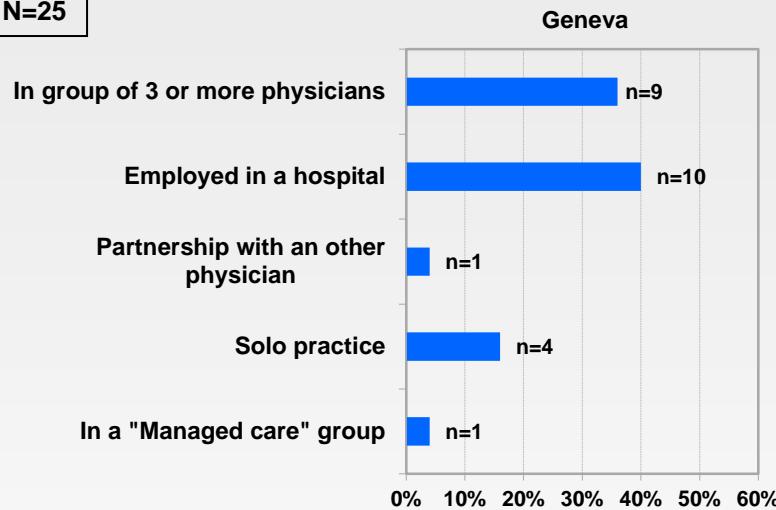
All 4 faculties (N=62/275)*



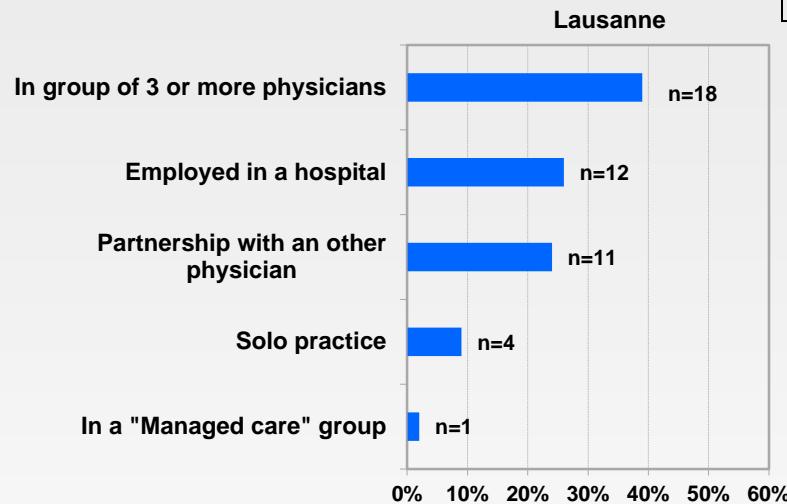
*Number of students with an academic vs non-academic career plan / Number of students having made a career plan choice

Choice of clinical practice as career plan By faculty

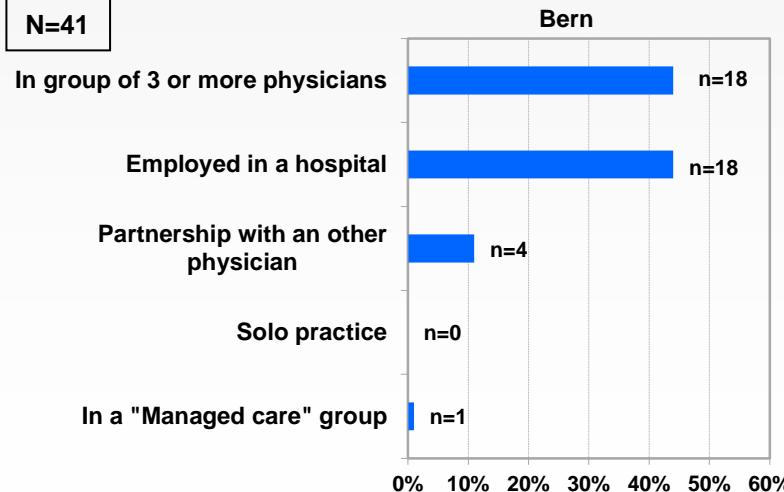
N=25



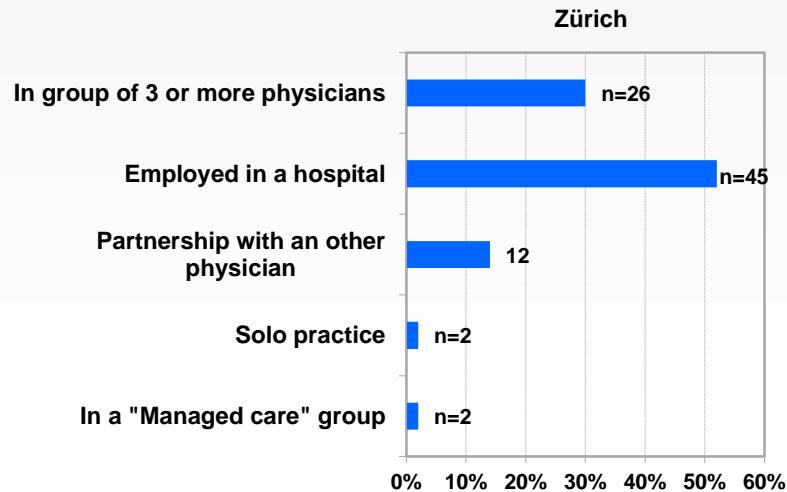
N=46



N=41

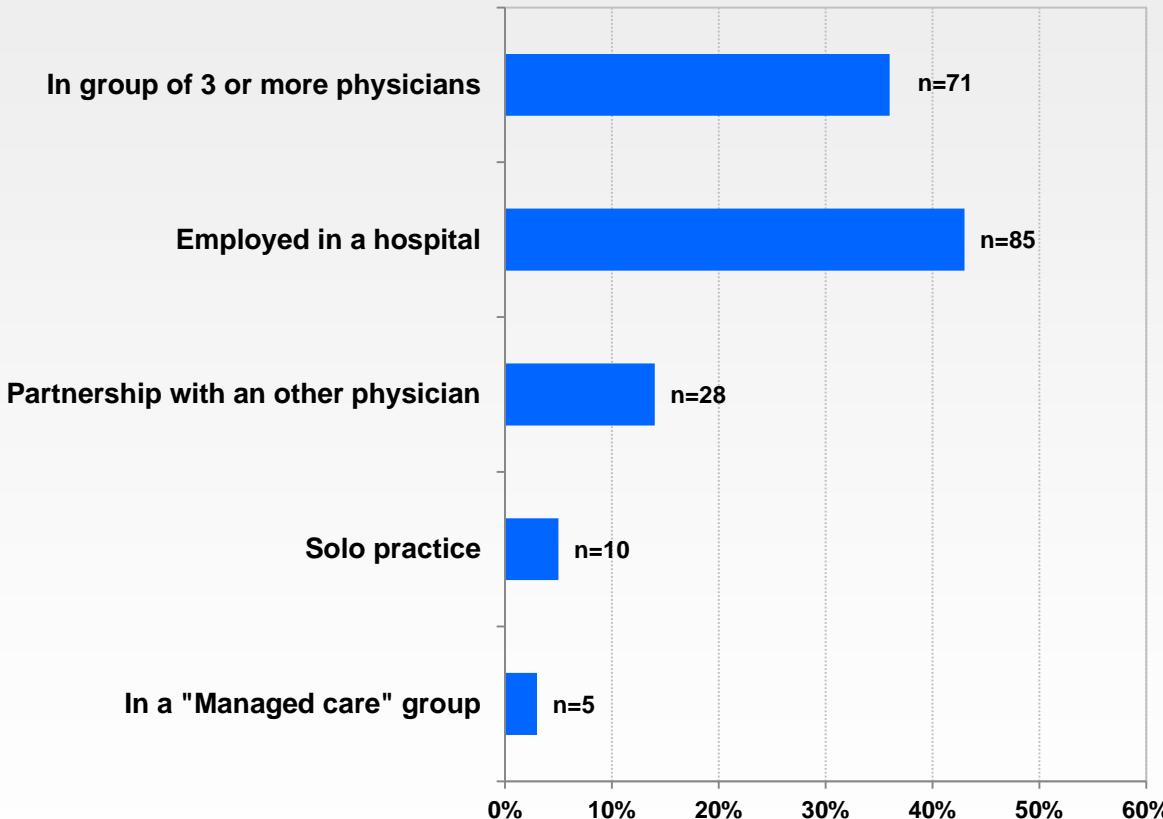


N=87



Choice of clinical practice as career plan

All 4 faculties (N=199/275)*



*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

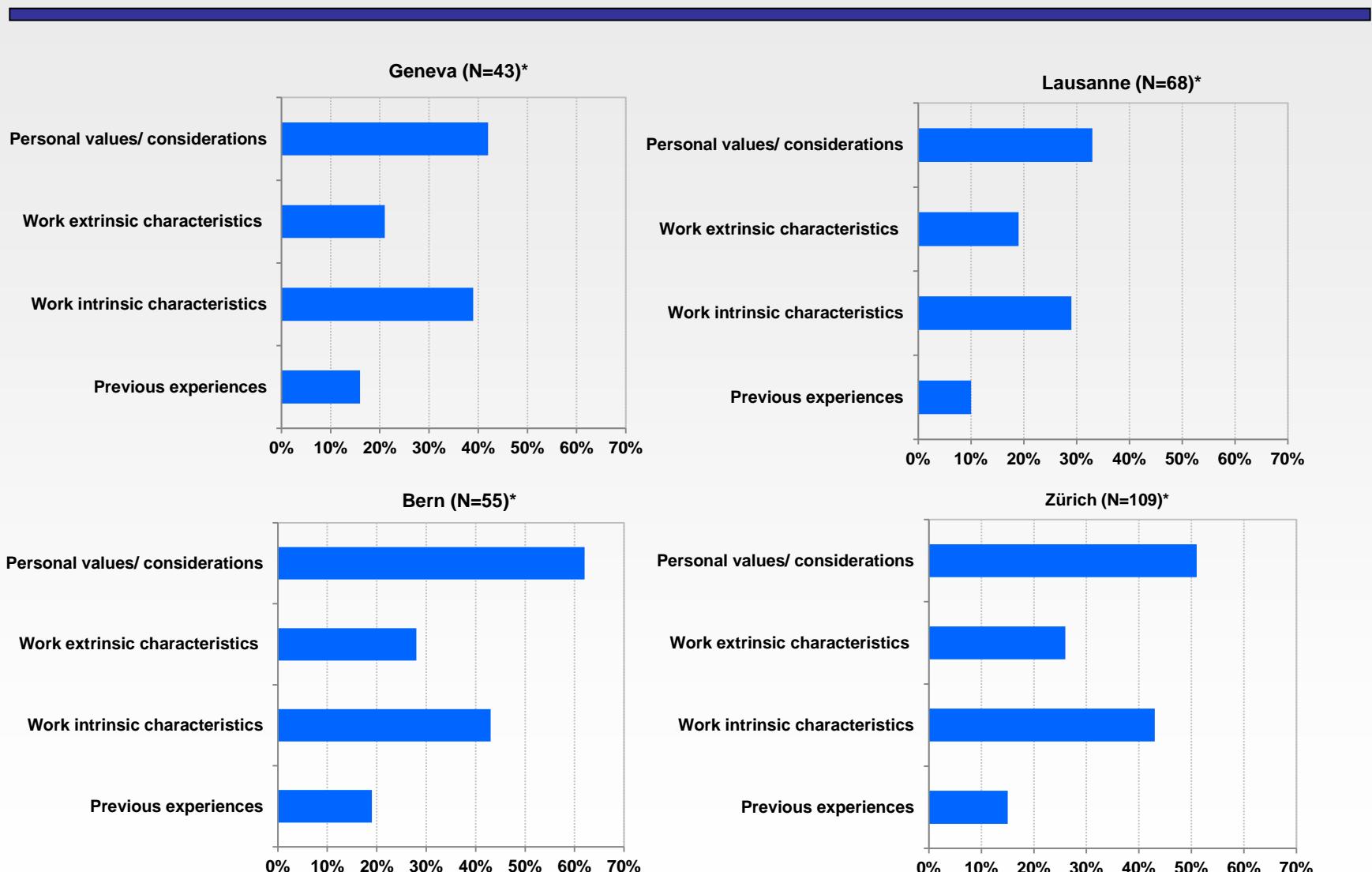
- Interpersonal relationship and contact with patients
- Multidisciplinarity
- Variety of activities, experiences, types of pathologies...
- Team work
- Tied to research
- Technical skills (manual, precise skills)
- High level of complexity and leading edge progress
- Level of responsibility and decision-making

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

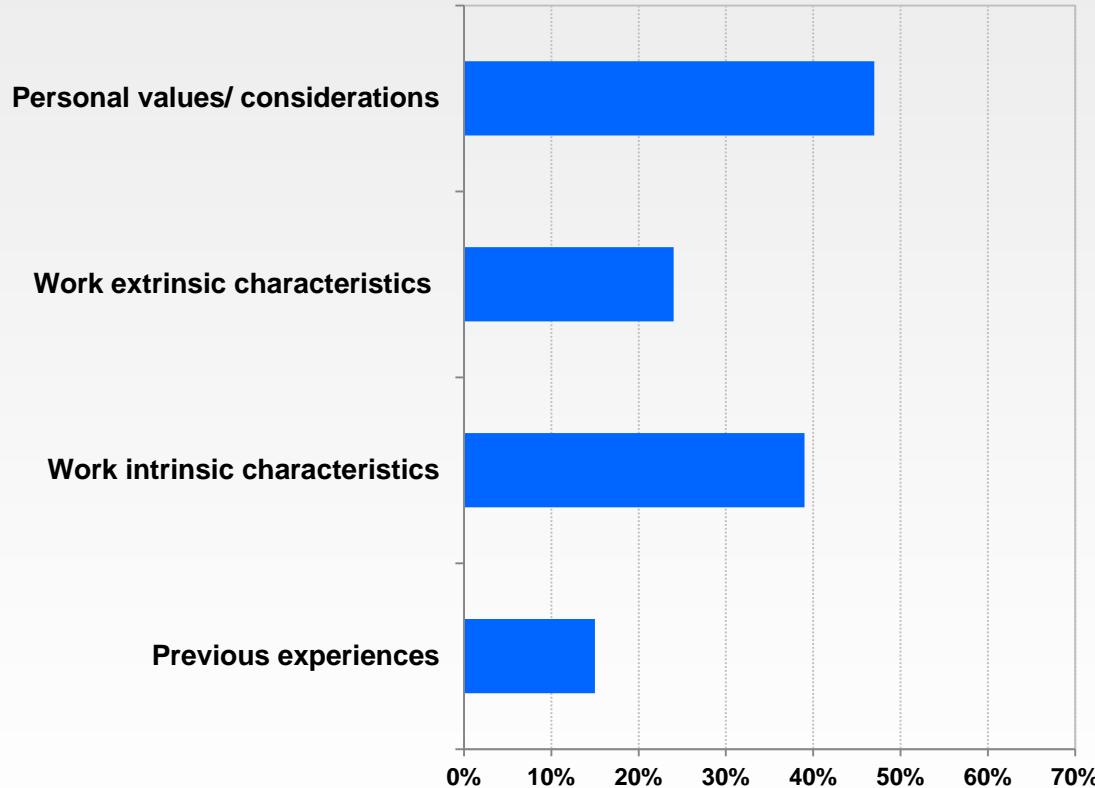
By faculty



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

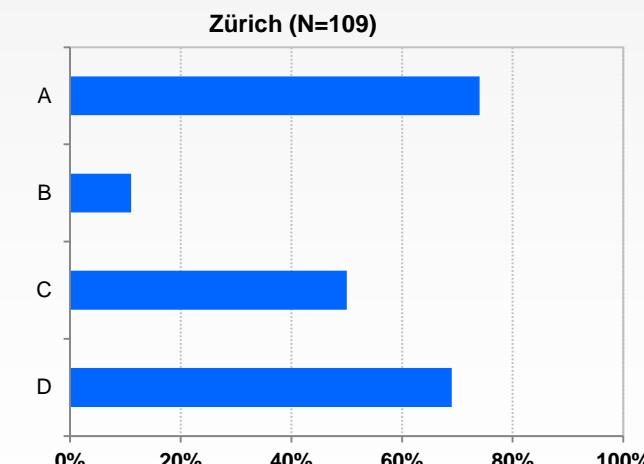
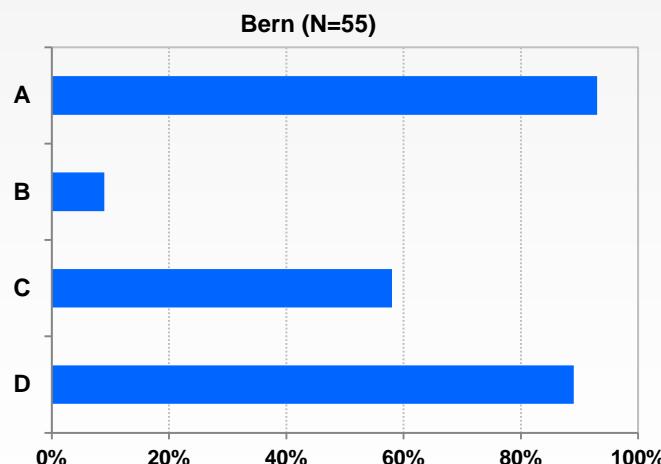
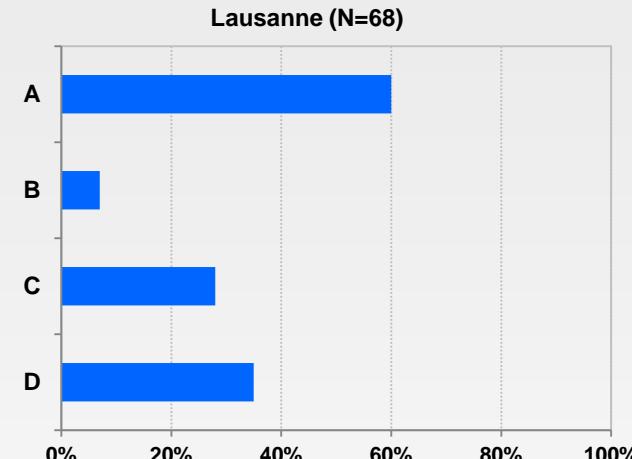
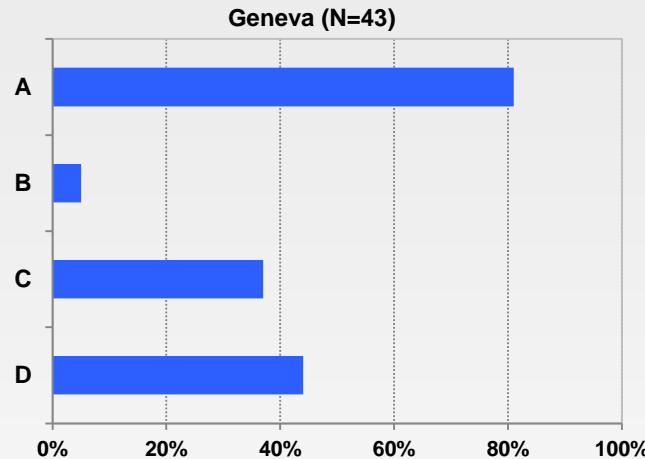
Reasons for career plan choice

All 4 faculties (N=275/337)*



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

Reasons for career plan choice: Personal values/considerations By faculty



A Passionate for medicine

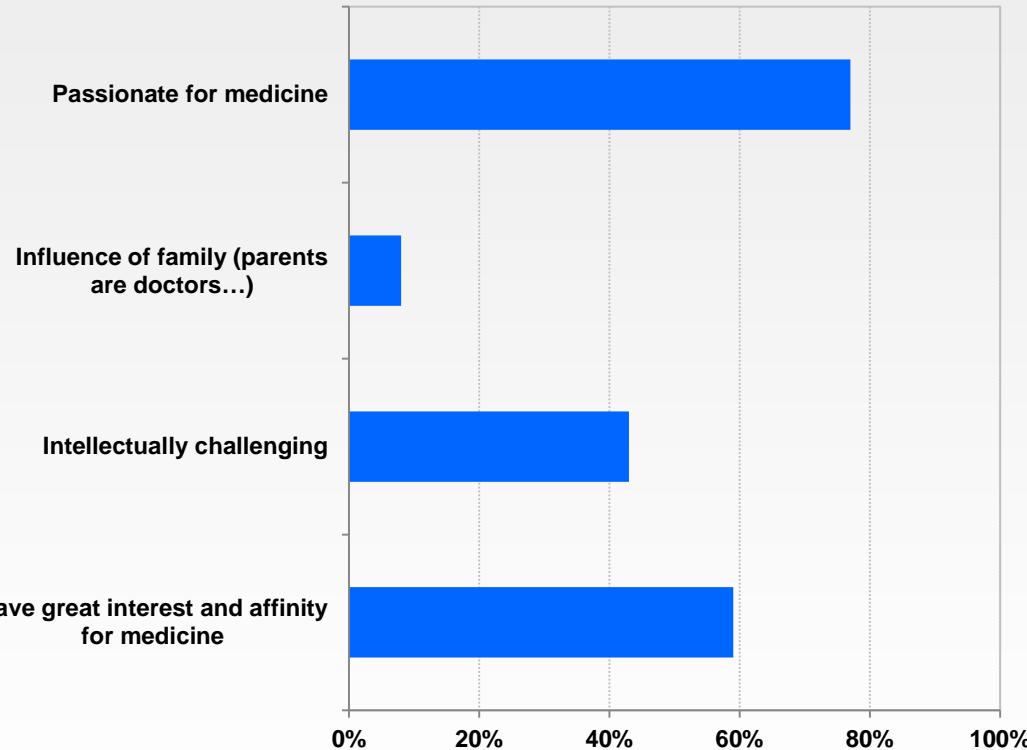
B Influence of family (parents are doctors...)

C Intellectually challenging

D Have great interest and affinity for medicine

Reasons for career plan choice: Personal values/considerations

All 4 faculties (N=275/337)*

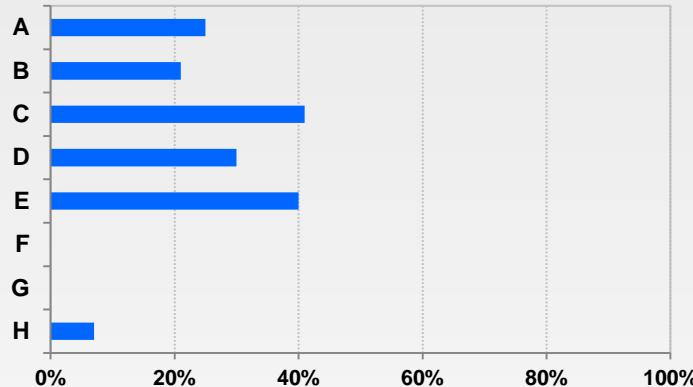


* Percentages based on number of students who indicated having made a career plan choice

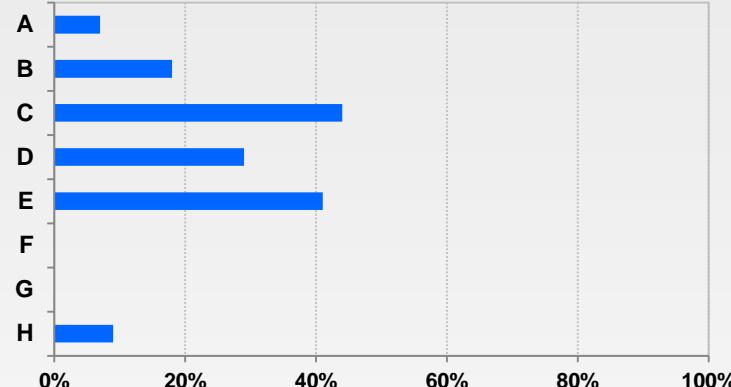
Reasons for career plan choice: Work extrinsic characteristics

By faculty

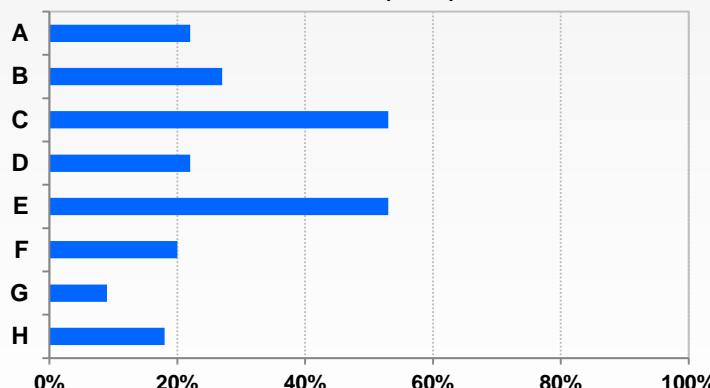
Genève (N=43)



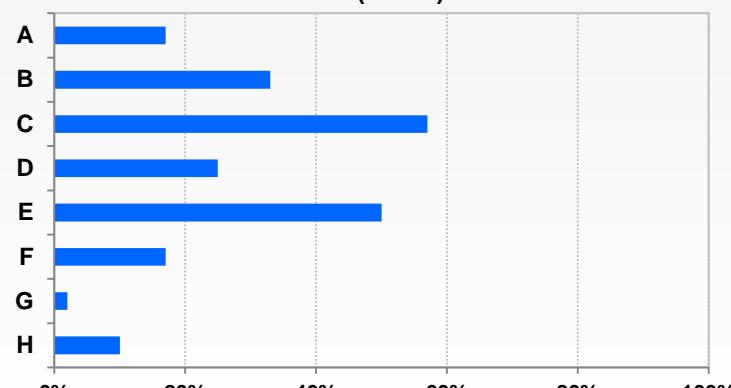
Lausanne (N=68)



Bern (N=55)



Zürich (N=109)



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)

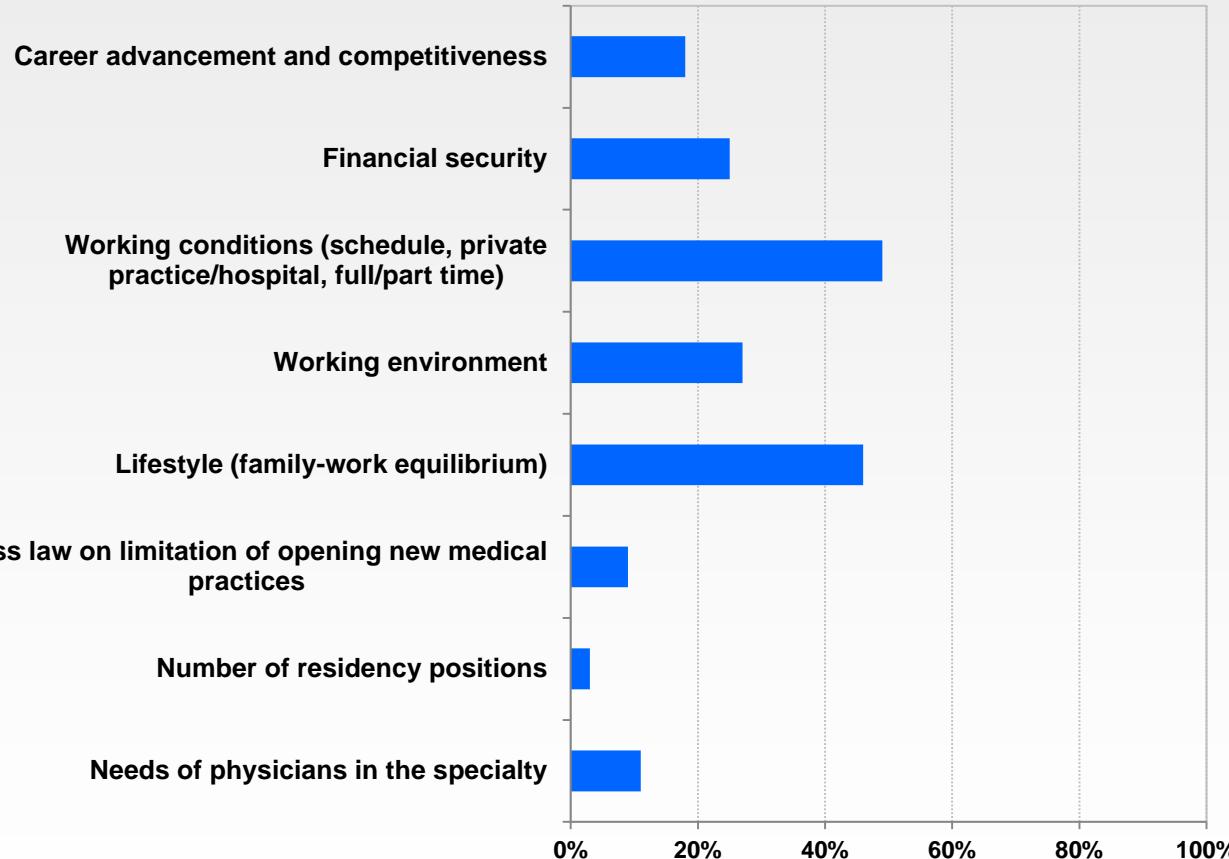
F Swiss law on limitation of opening new medical practices

G Number of residency positions

H Needs of physicians in the specialty

Reasons for career plan choice: Work extrinsic characteristics

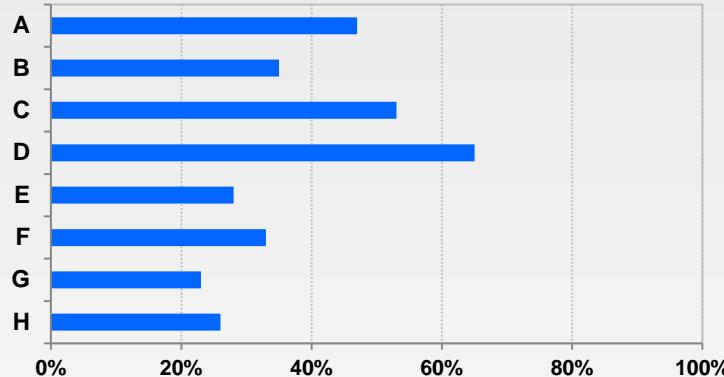
All 4 faculties (N=275/337)*



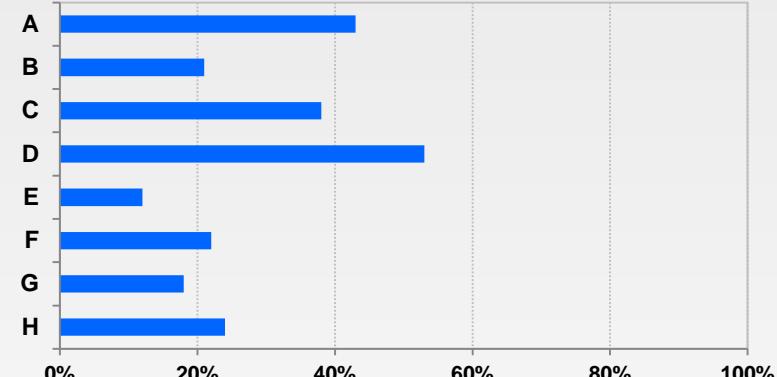
* Percentages based on number of students who indicated having made a career plan choice

Reasons for career plan choice: Work intrinsic characteristics By faculty

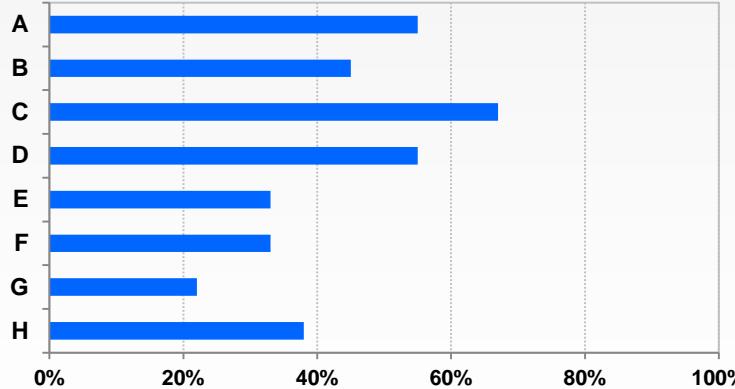
Genève (N=43)



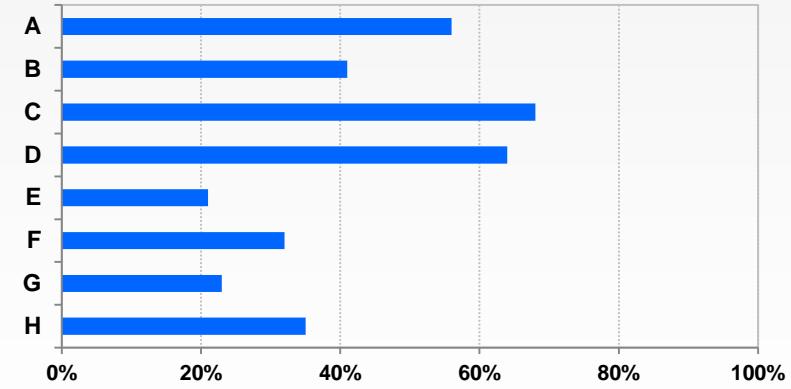
Lausanne (N=68)



Bern (N=55)



Zürich (N=109)

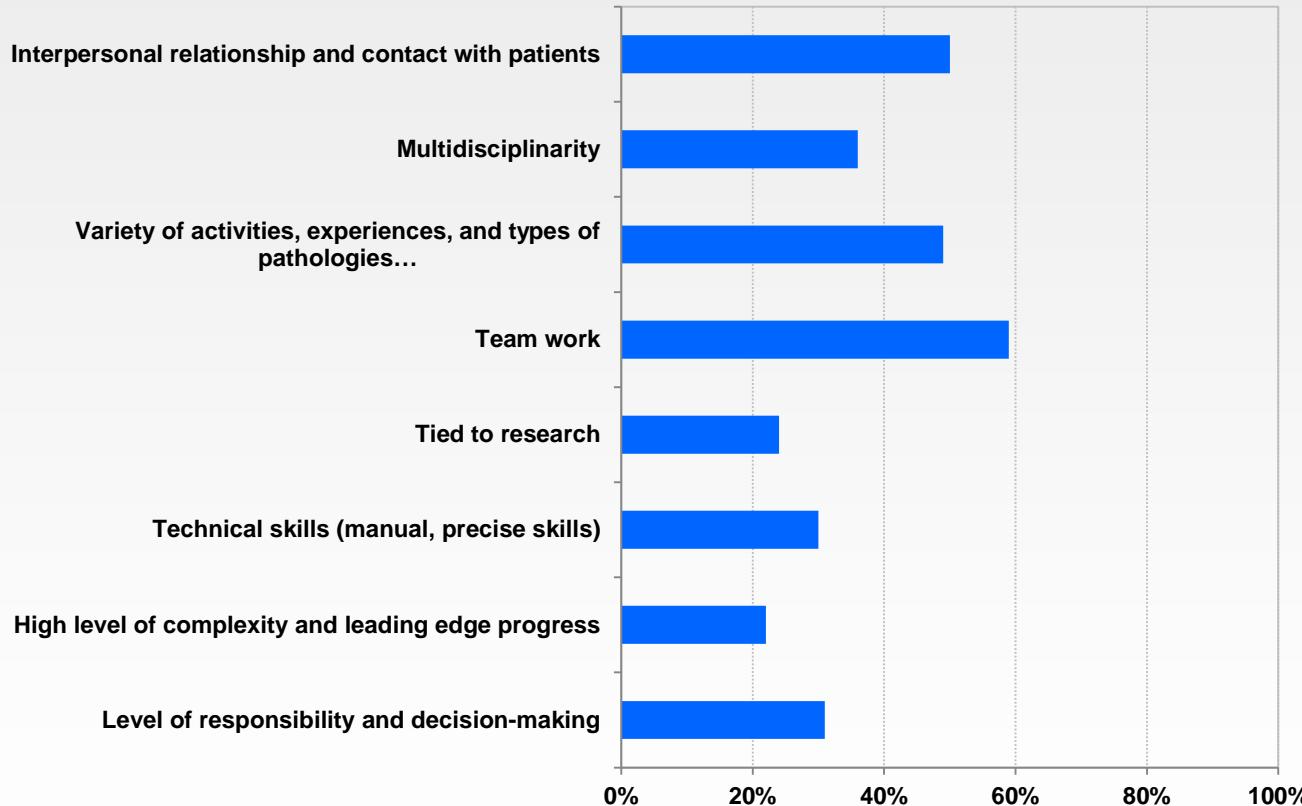


- A Interpersonal relationship and contact with patients
- B Multidisciplinarity
- C Variety of activities, experiences, and types of pathologies...
- D Team work

- 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

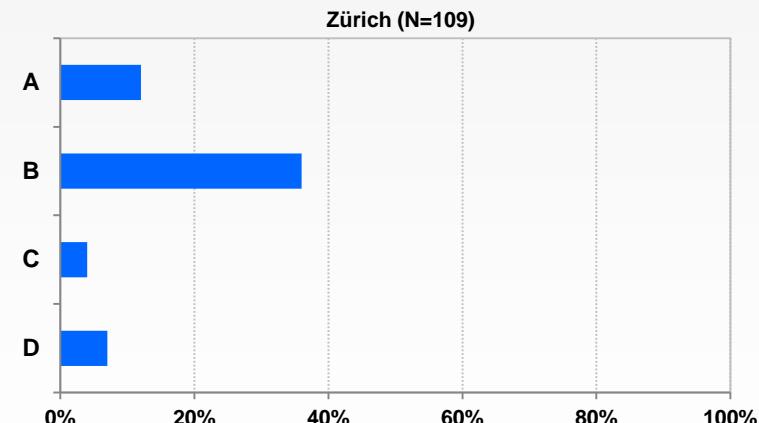
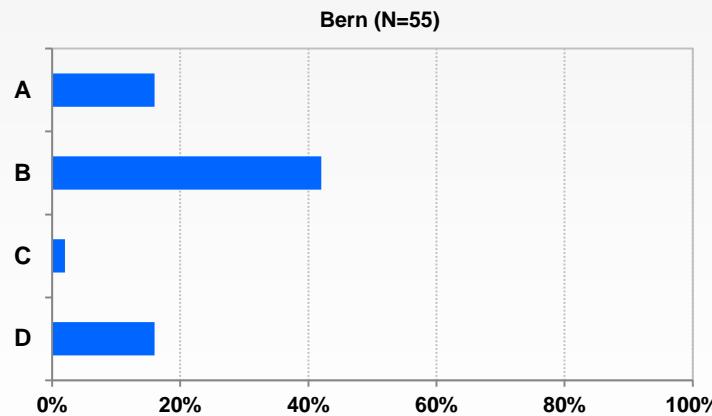
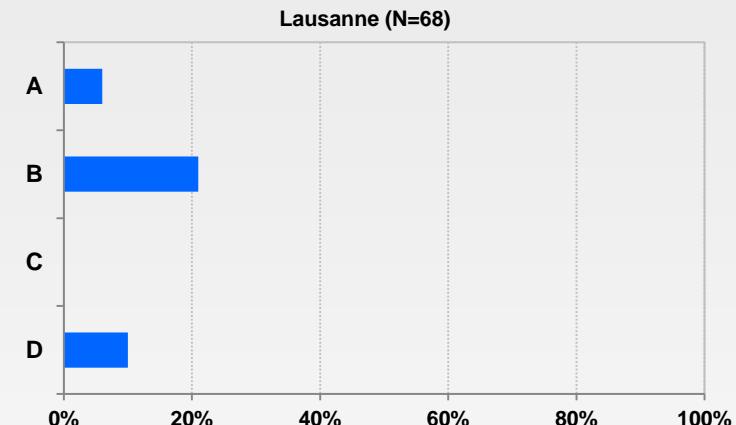
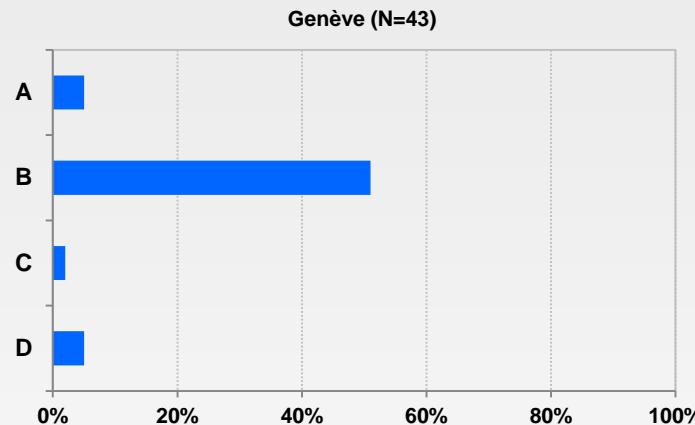
Reasons for career plan choice: Work intrinsic characteristics

All 4 faculties (N=275/337)*



* 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...)

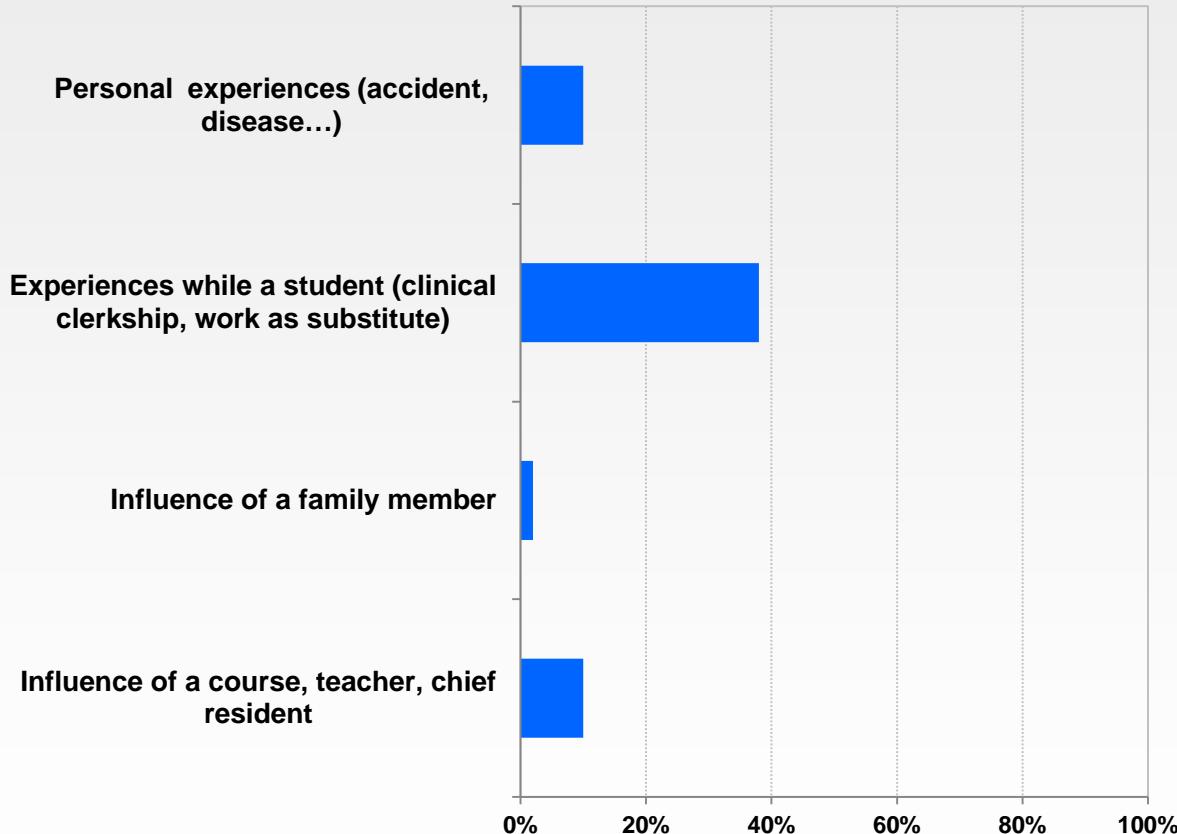
B Experiences while a student (clinical clerkship, work as substitute)

C Influence of a family member

D Influence of a course, teacher, chief resident

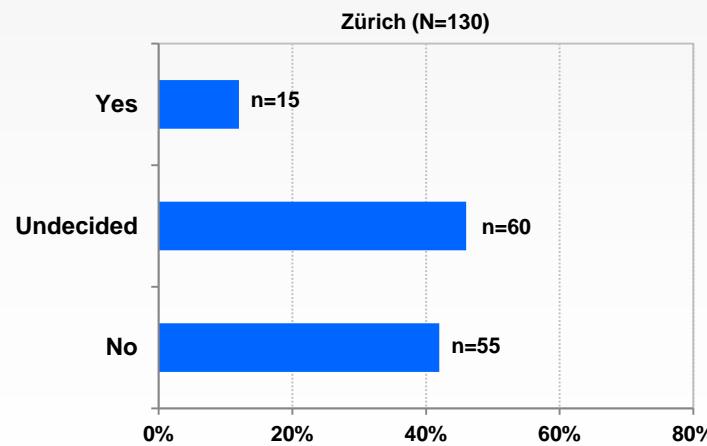
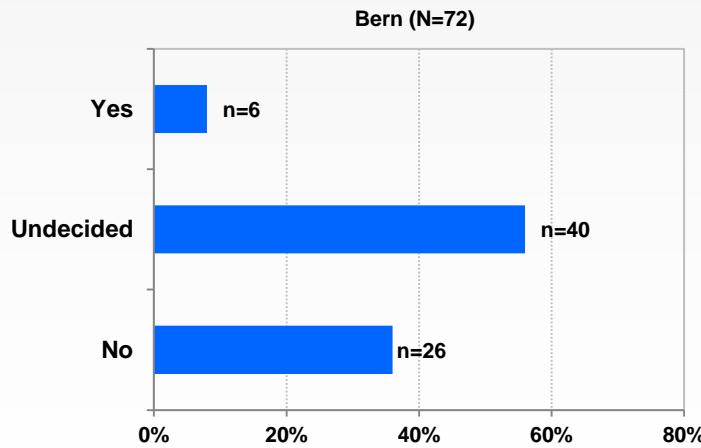
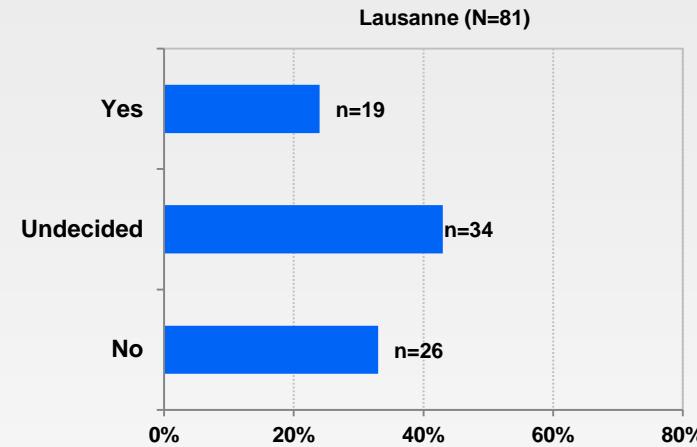
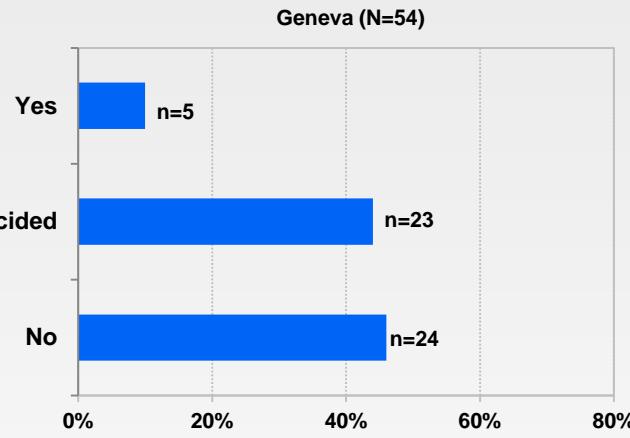
Reasons for career plan choice: Previous experiences

All 4 faculties (N=275/337)*

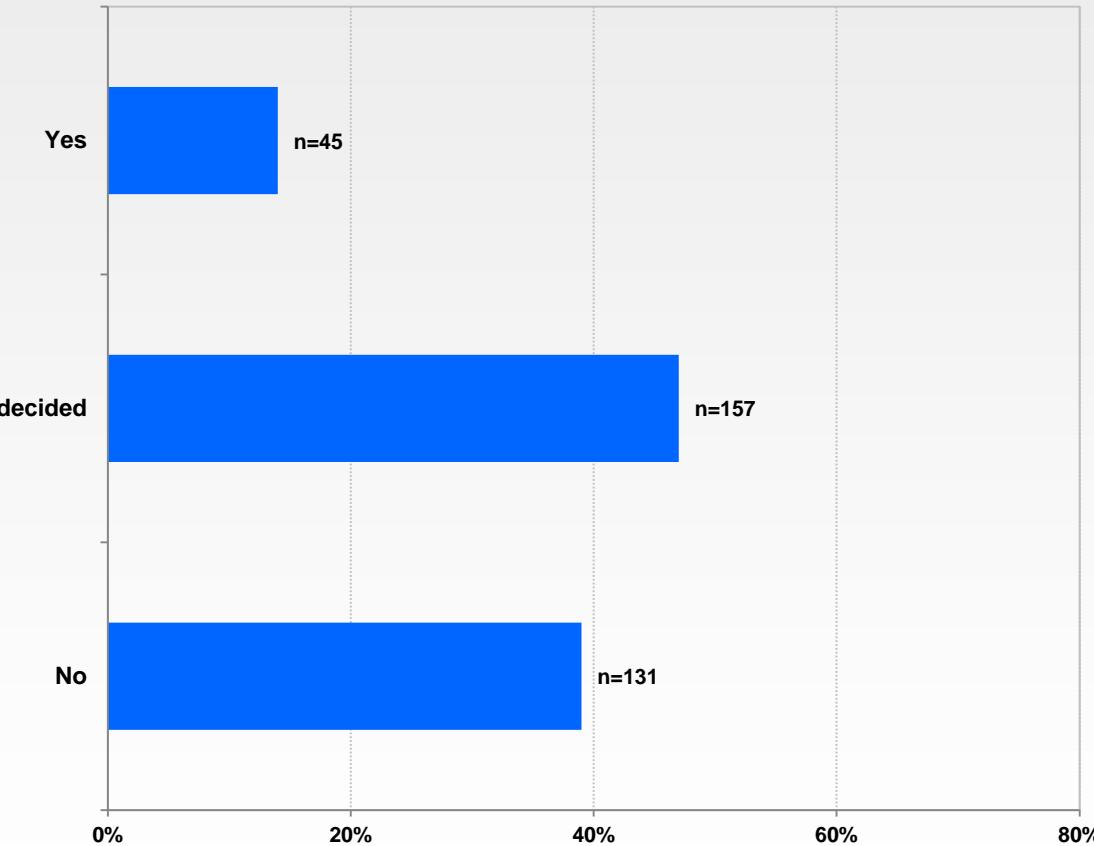


* Percentages based on number of students who indicated having made a career plan choice

Intention of practice in medically underserved areas By faculty

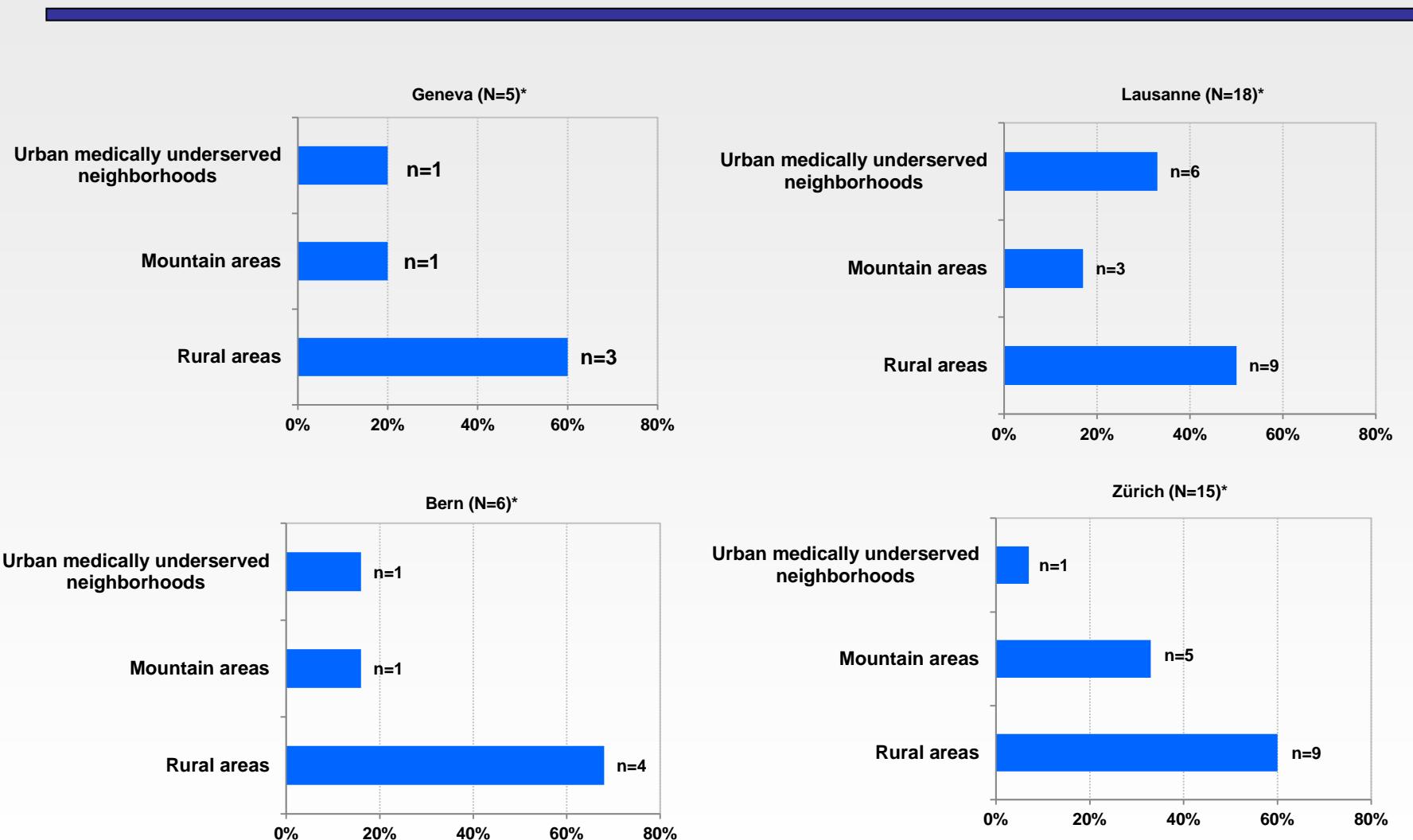


Intention of practice in medically underserved area All 4 faculties (N=337)



Choice of place of practice in medically underserved areas

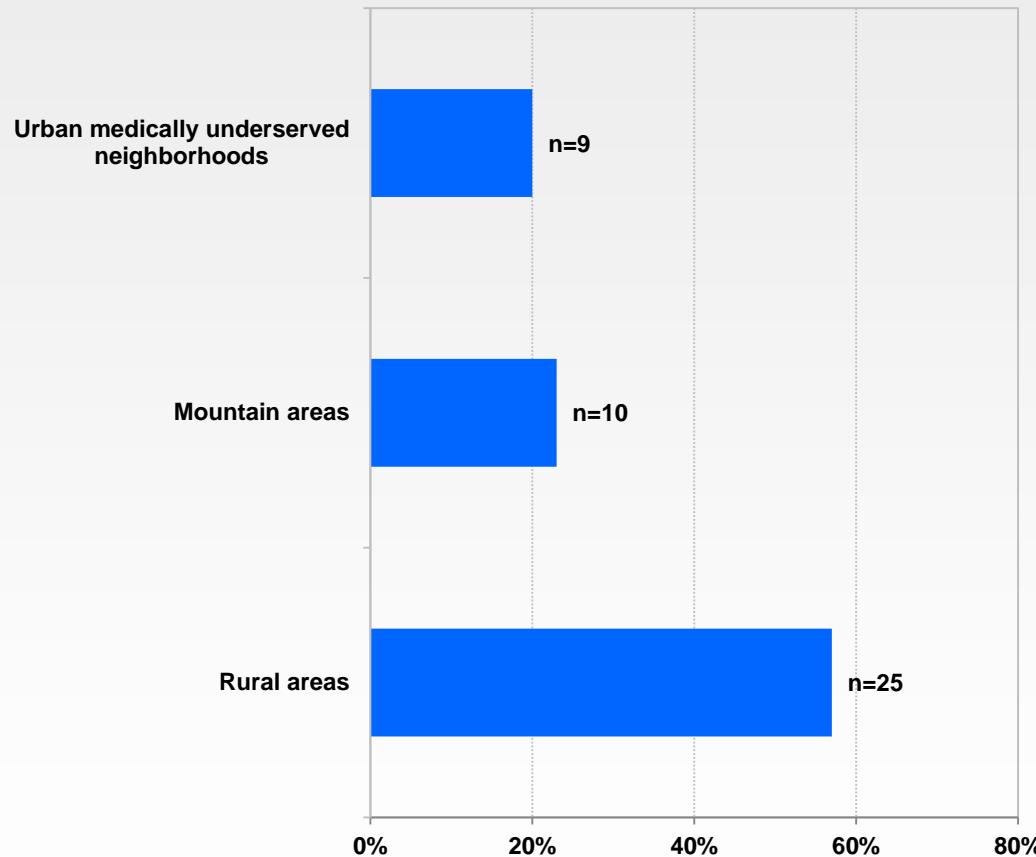
By faculty



* 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=44/337)*

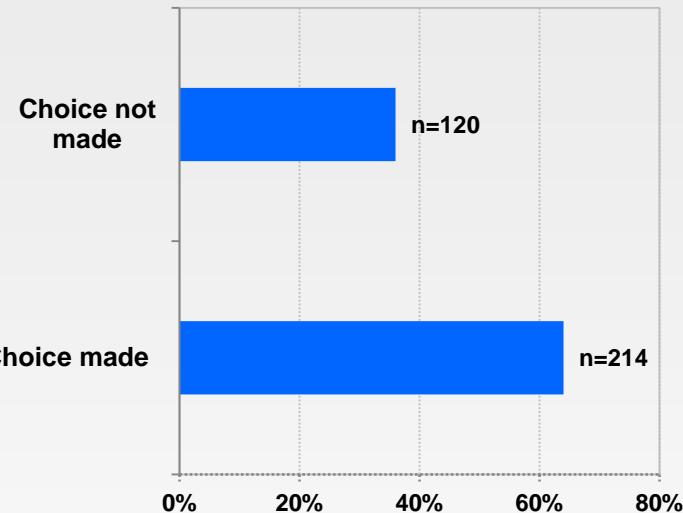


* Percentages based on the number of students who indicated having intention to practice in medically underserved areas

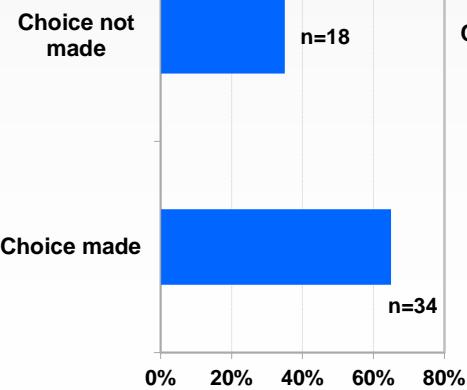
Specialty choice status

All 4 faculties and by faculty

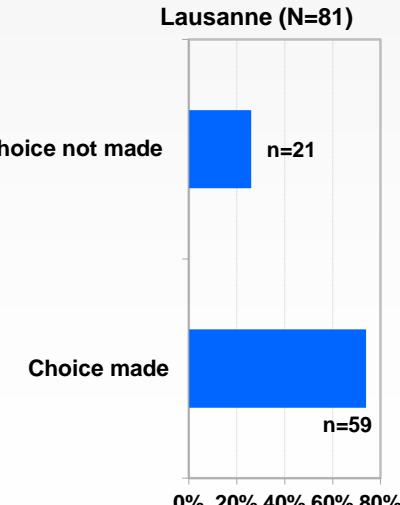
All 4 Faculties



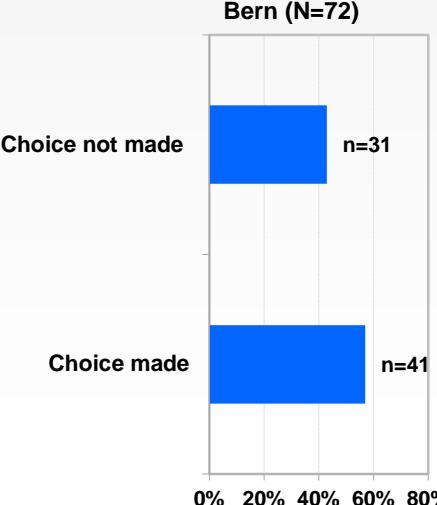
Geneva (N=54)



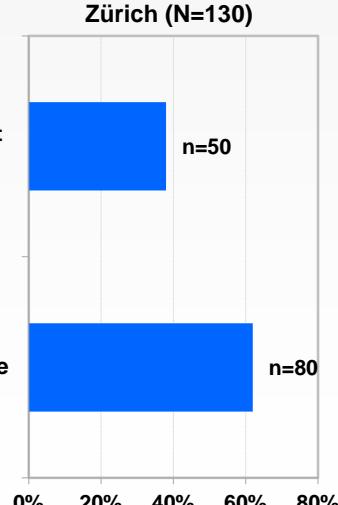
Lausanne (N=81)



Bern (N=72)



Zürich (N=130)

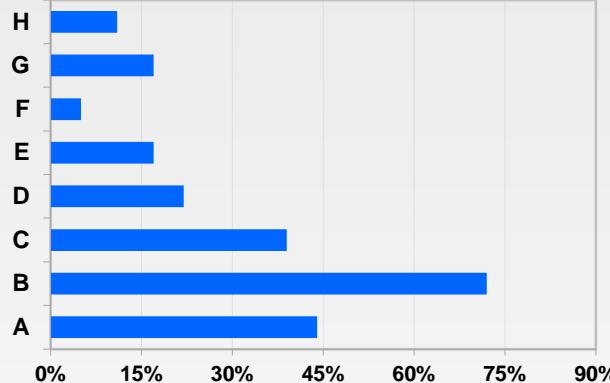


Reasons for not making a specialty choice

By faculty

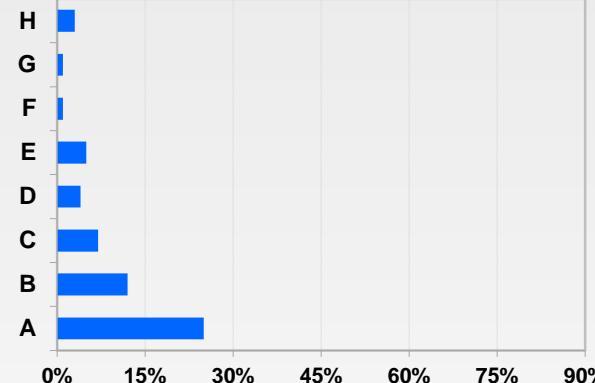
N=18*

Geneva



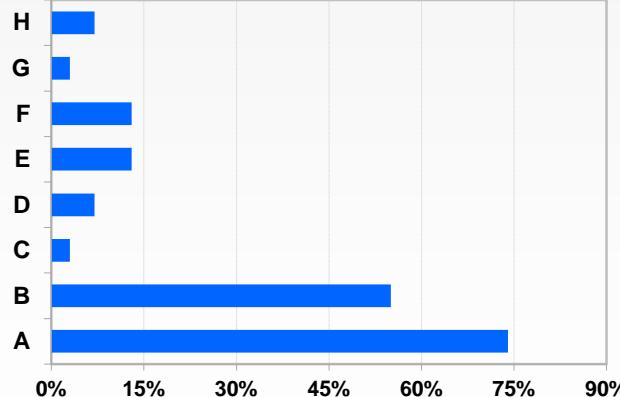
N=21*

Lausanne



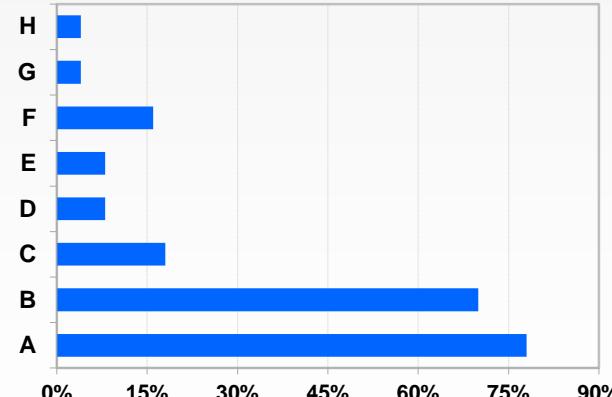
N=31*

Bern



N=50*

Zürich



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

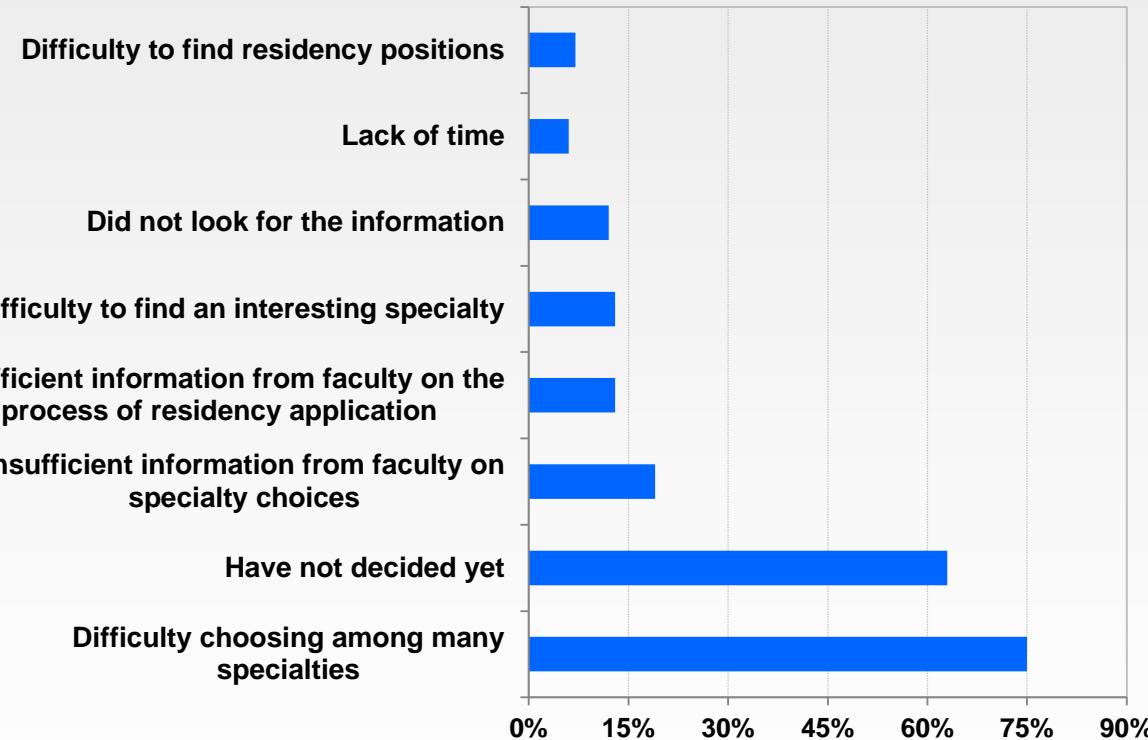
G Lack of time

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

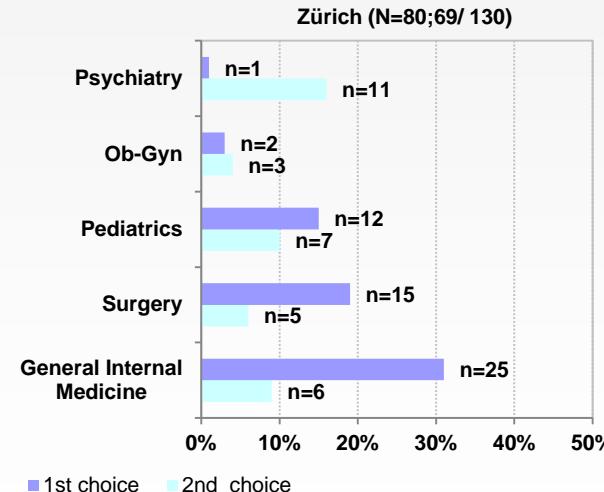
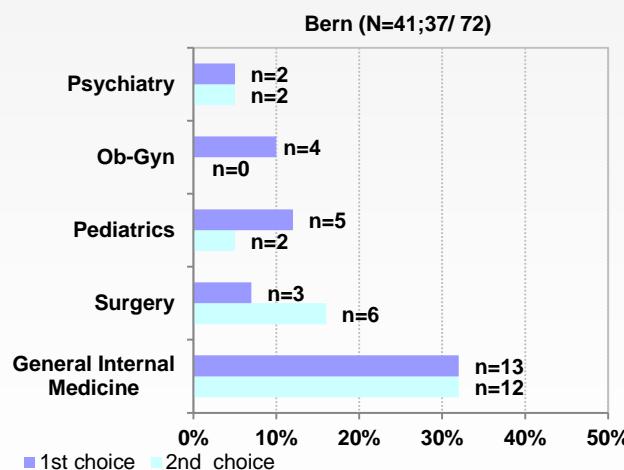
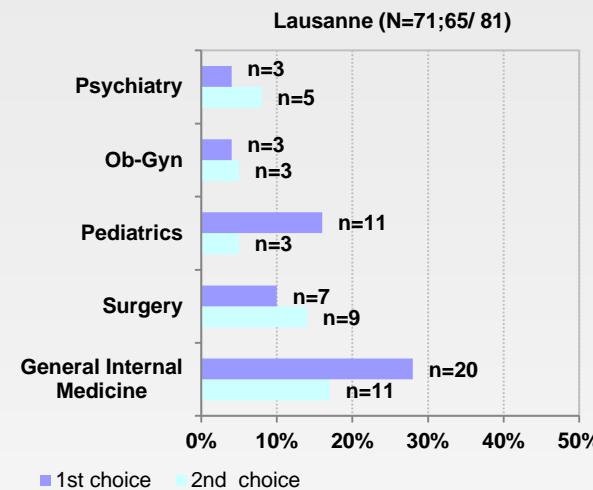
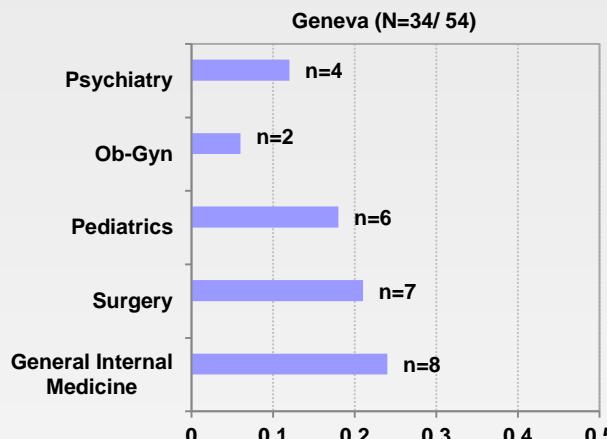
All 4 faculties (N=120/337)*



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

Specialty 1st and 2nd choices

By faculty (N)

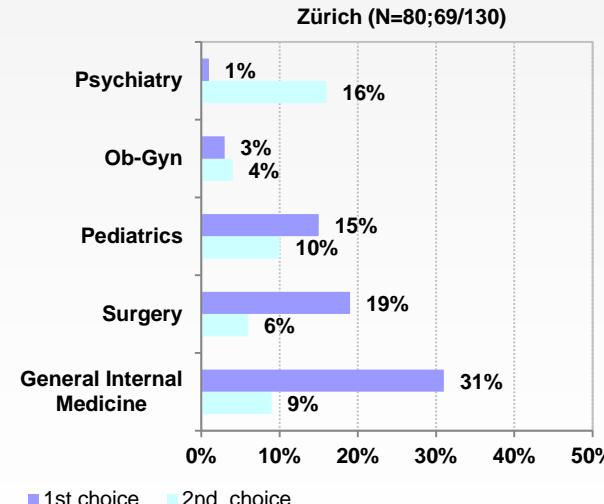
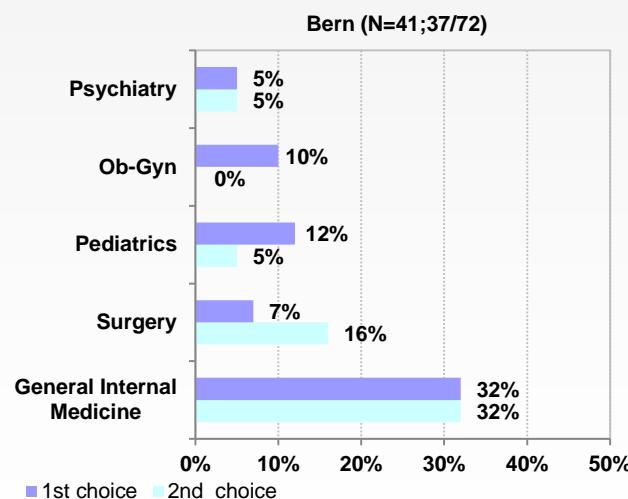
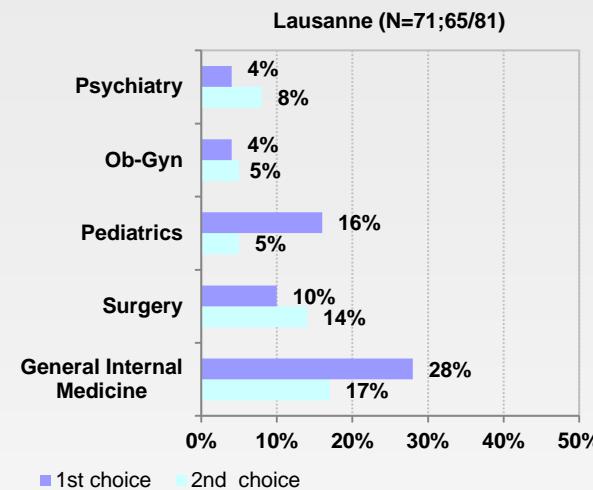
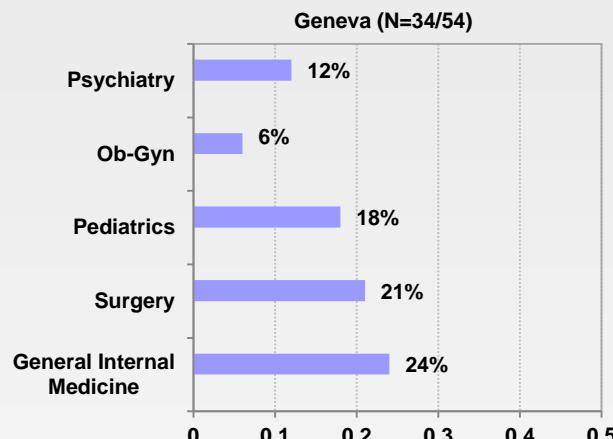


* N= No of students who make the 1st choice; No of students who make the 2nd choice; No of students who filled out the questionnaire

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 (%)

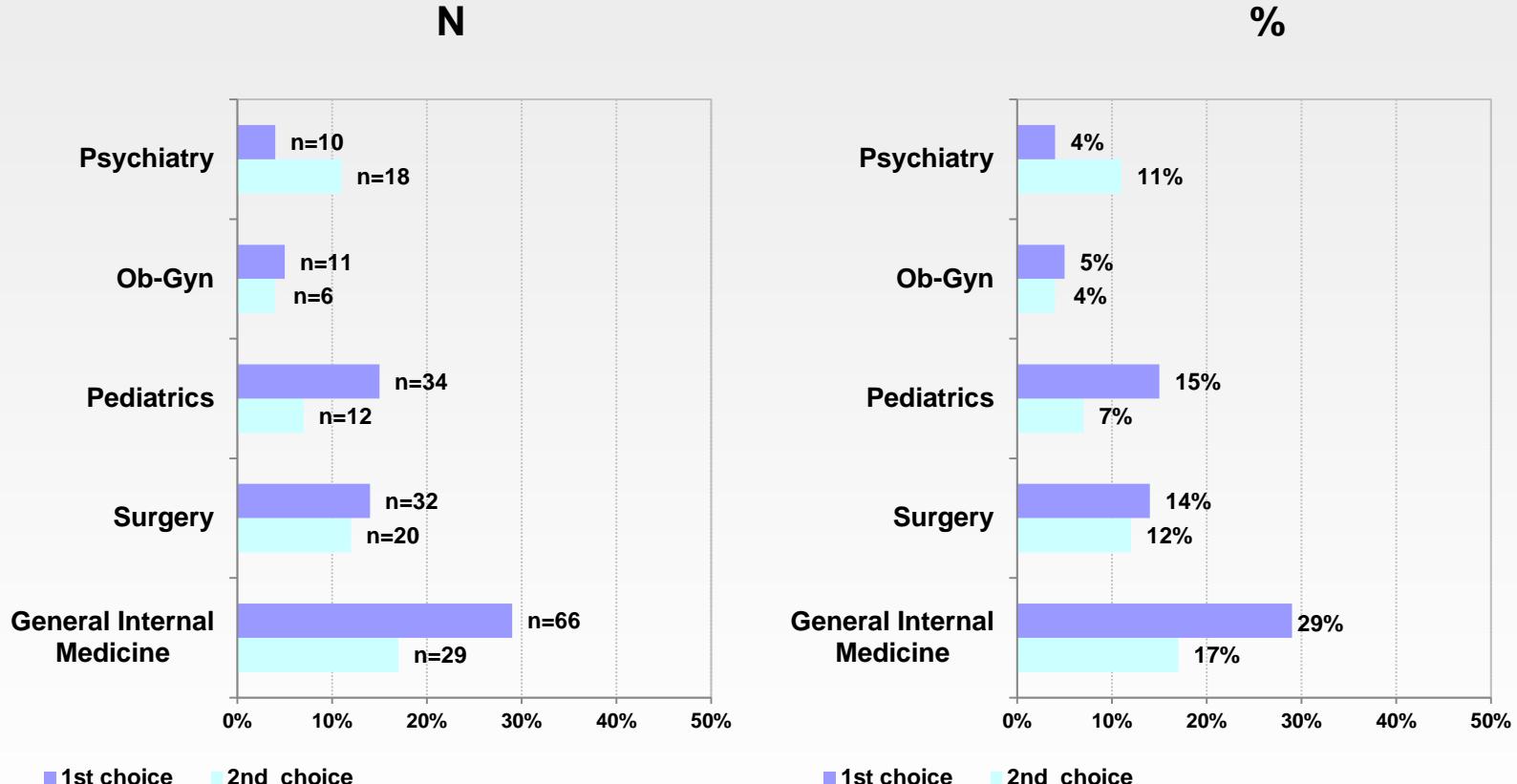


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Specialty 1st and 2nd choices

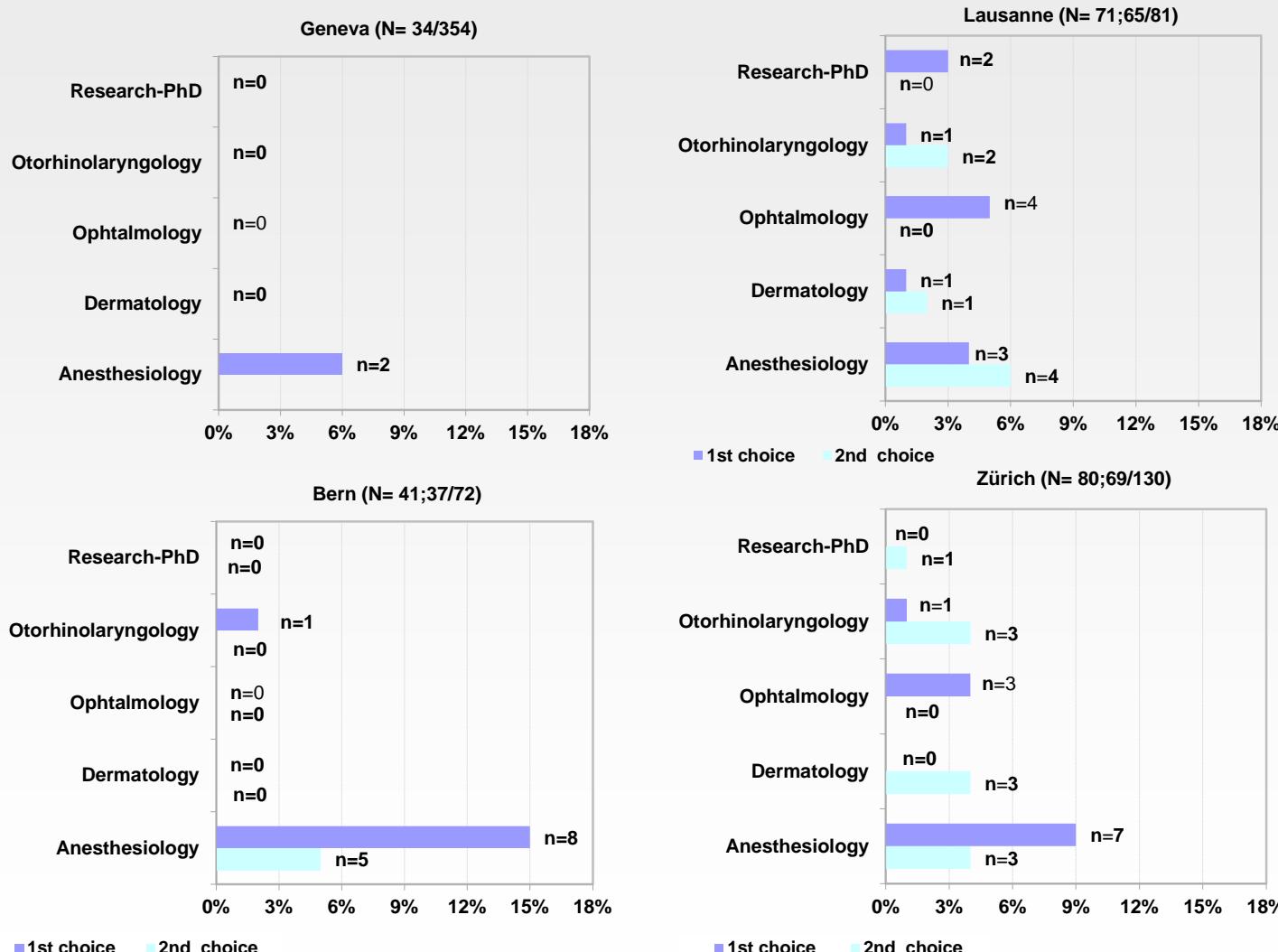
All 4 faculties (N=226;171;337)*



* 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
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Subspecialty 1st and 2nd choices

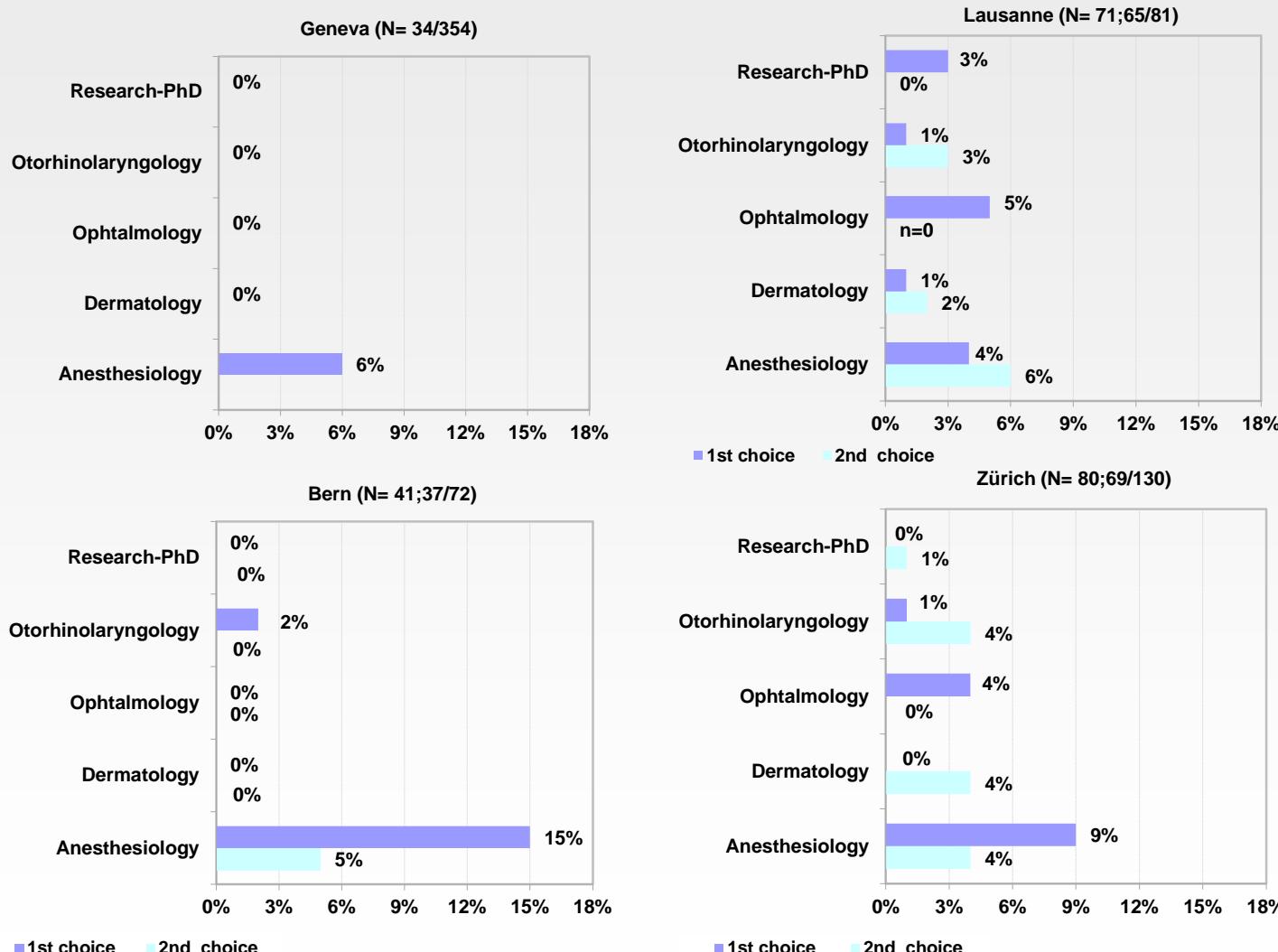
By faculty (N)



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

Subspecialty 1st and 2nd choices

By faculty (%)

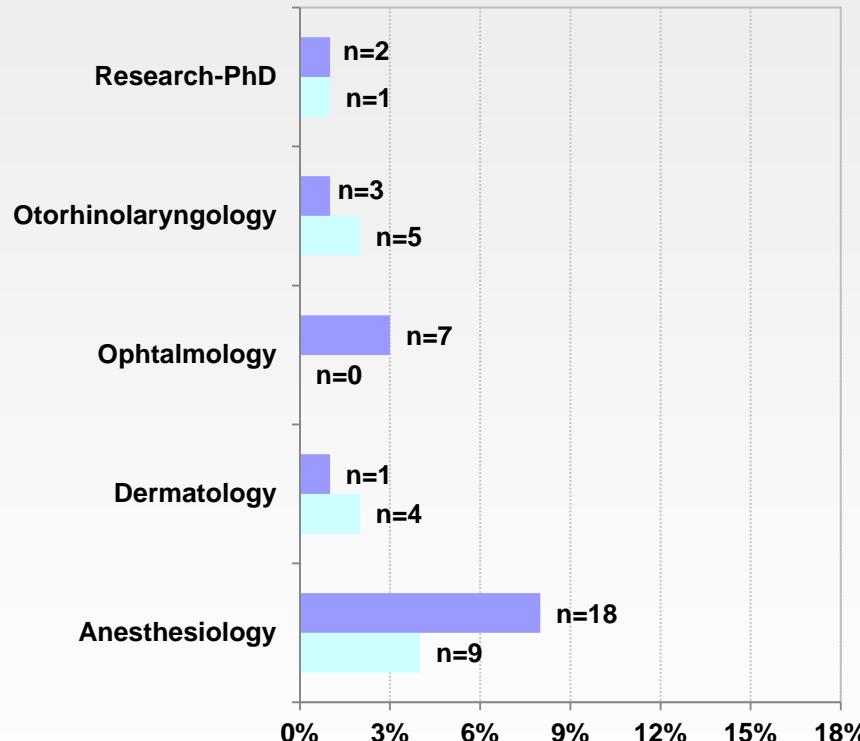


Note : - Not listed are subspecialties not selected by the students or having an $N \leq 1$ as 1st or 2nd choice.
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Subspecialty 1st and 2nd Choices

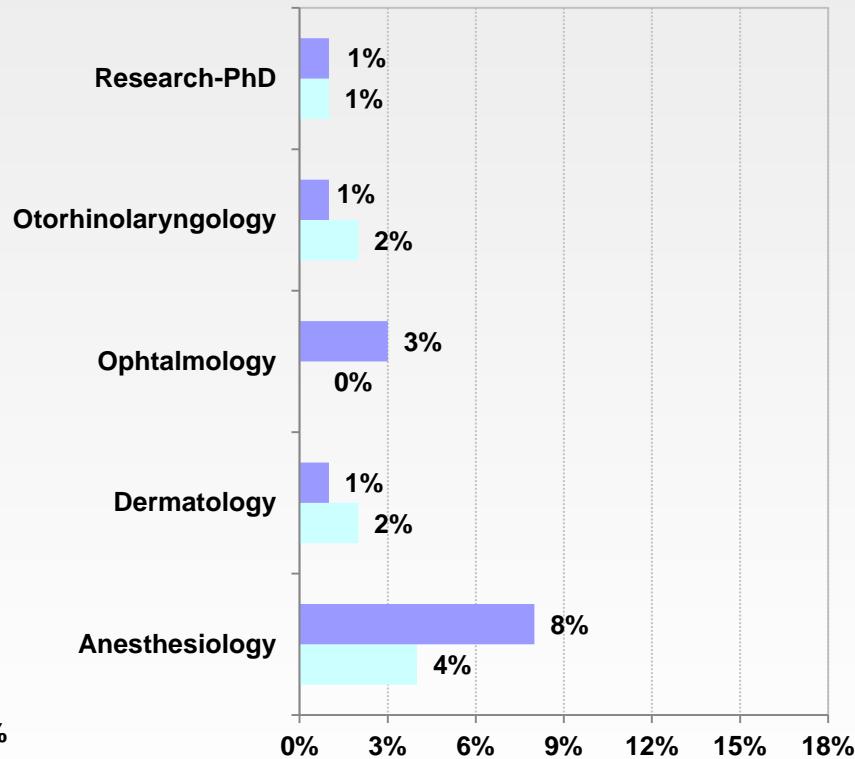
All 4 faculties (N=226;171;337)

N



■ 1st choice ■ 2nd choice

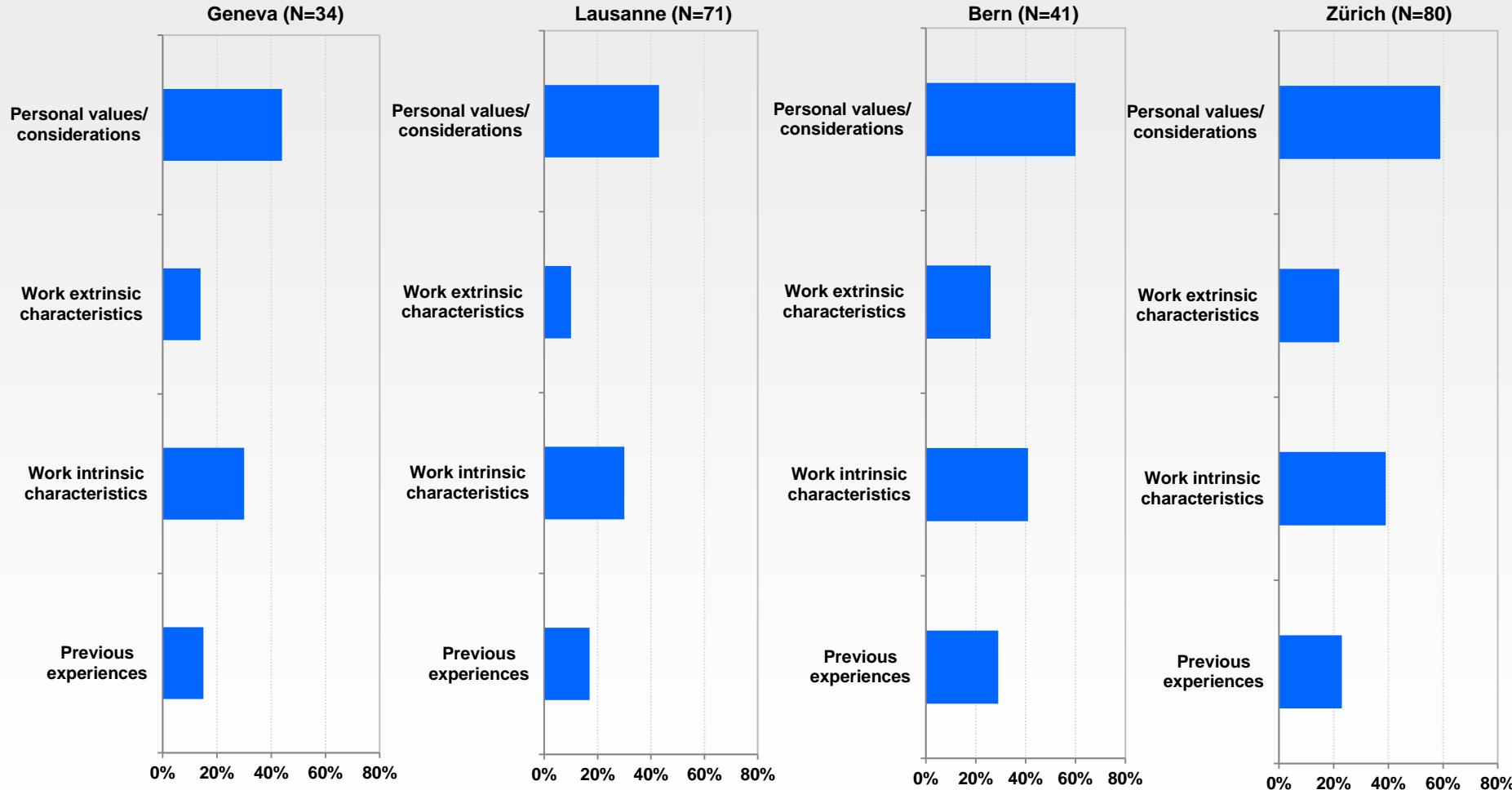
%



■ 1st choice ■ 2nd choice

Reasons for specialty choice

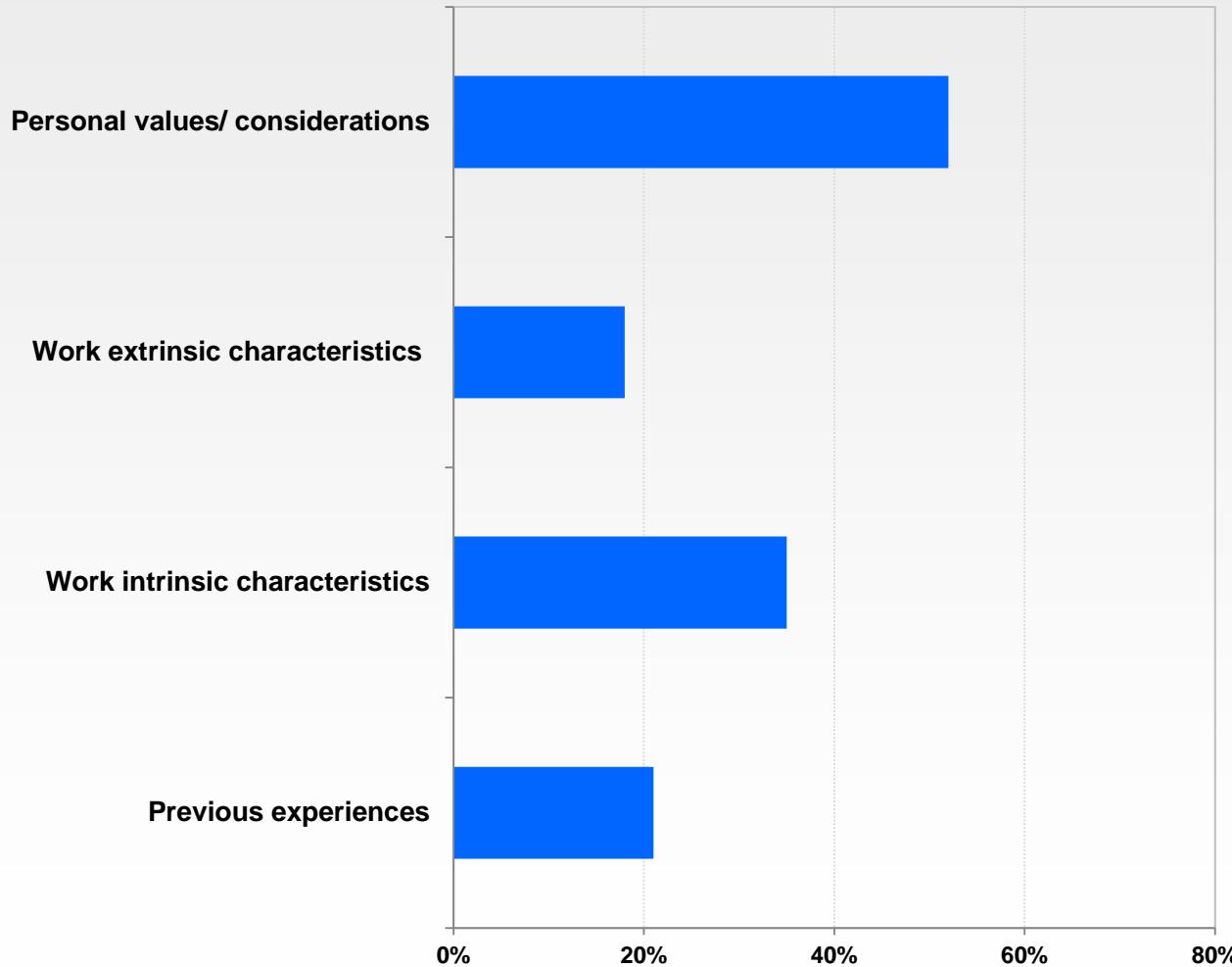
By faculty



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

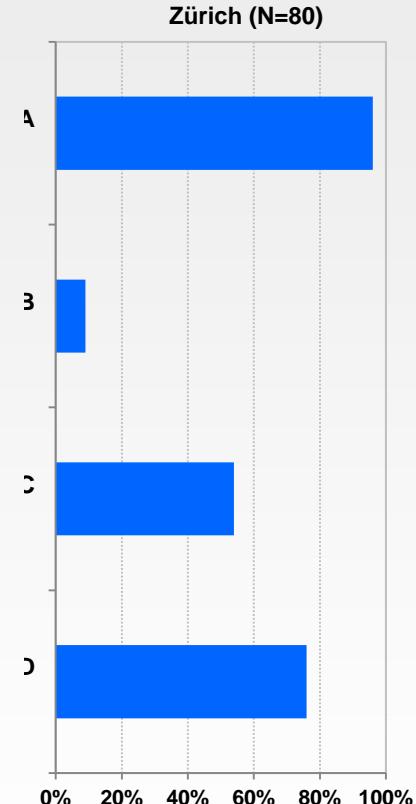
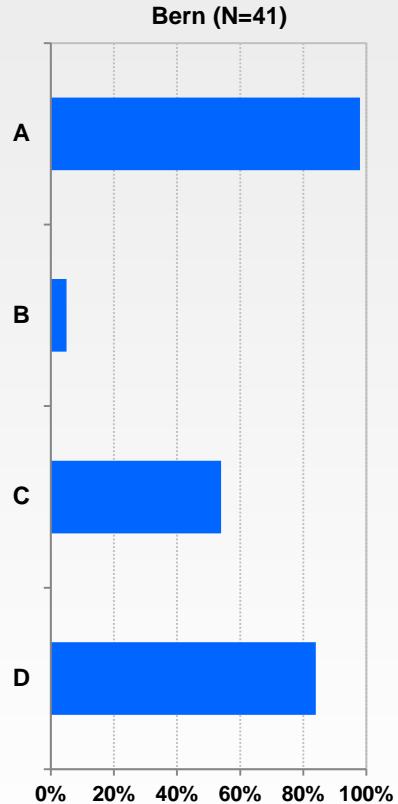
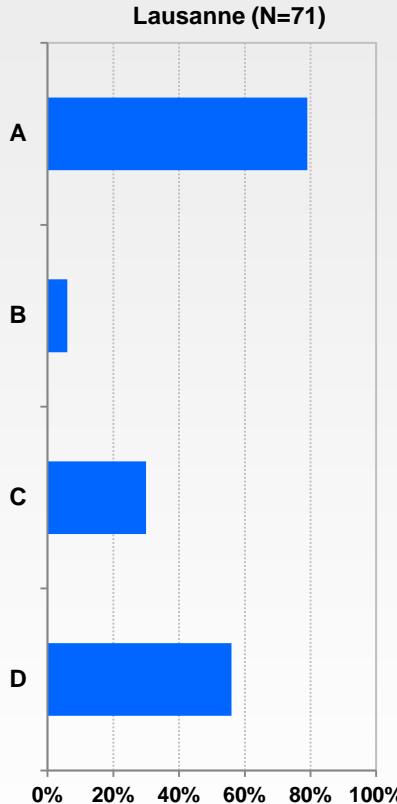
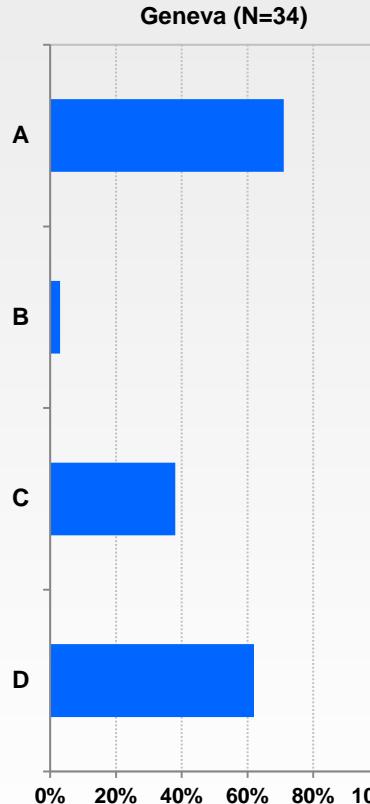
Reasons for specialty choice

All 4 faculties (N=226/337)*



* 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

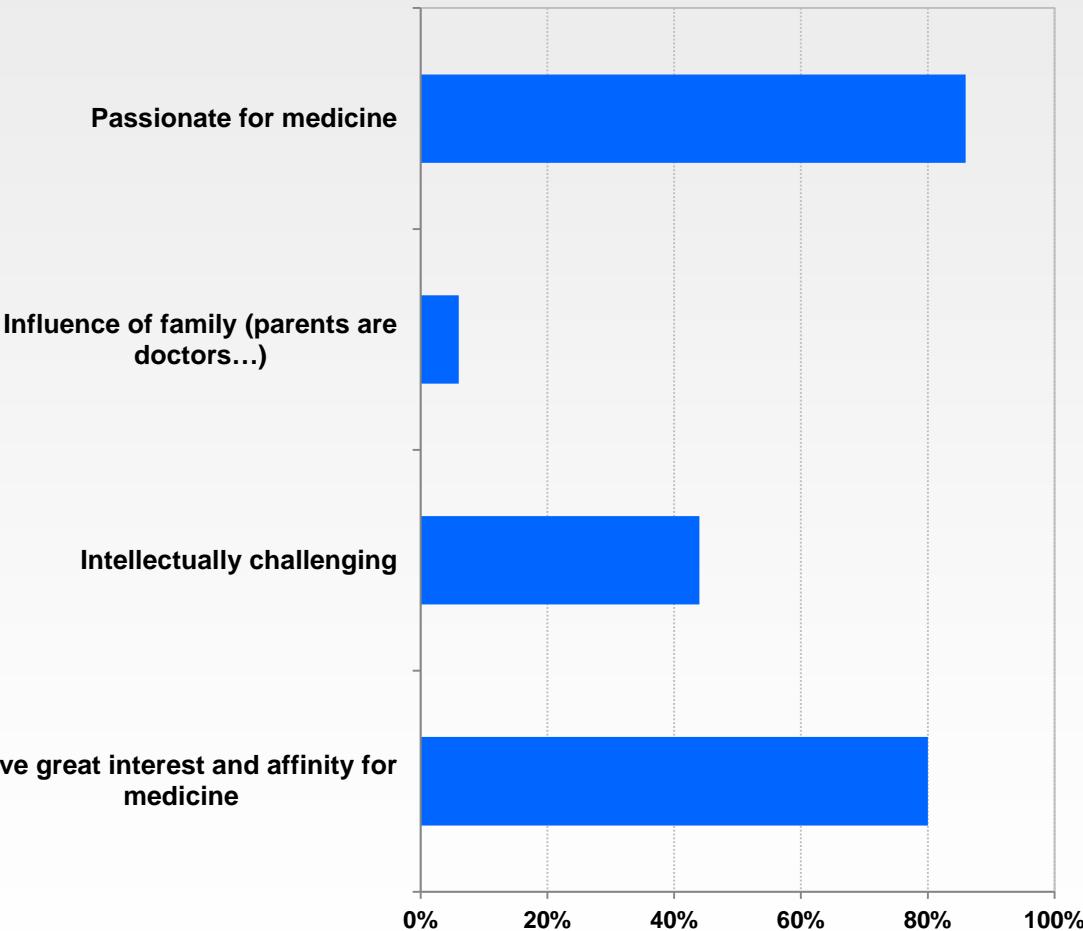
B Influence of family (parents are doctors...)

C Intellectually challenging

D Have great interest and affinity for medicine

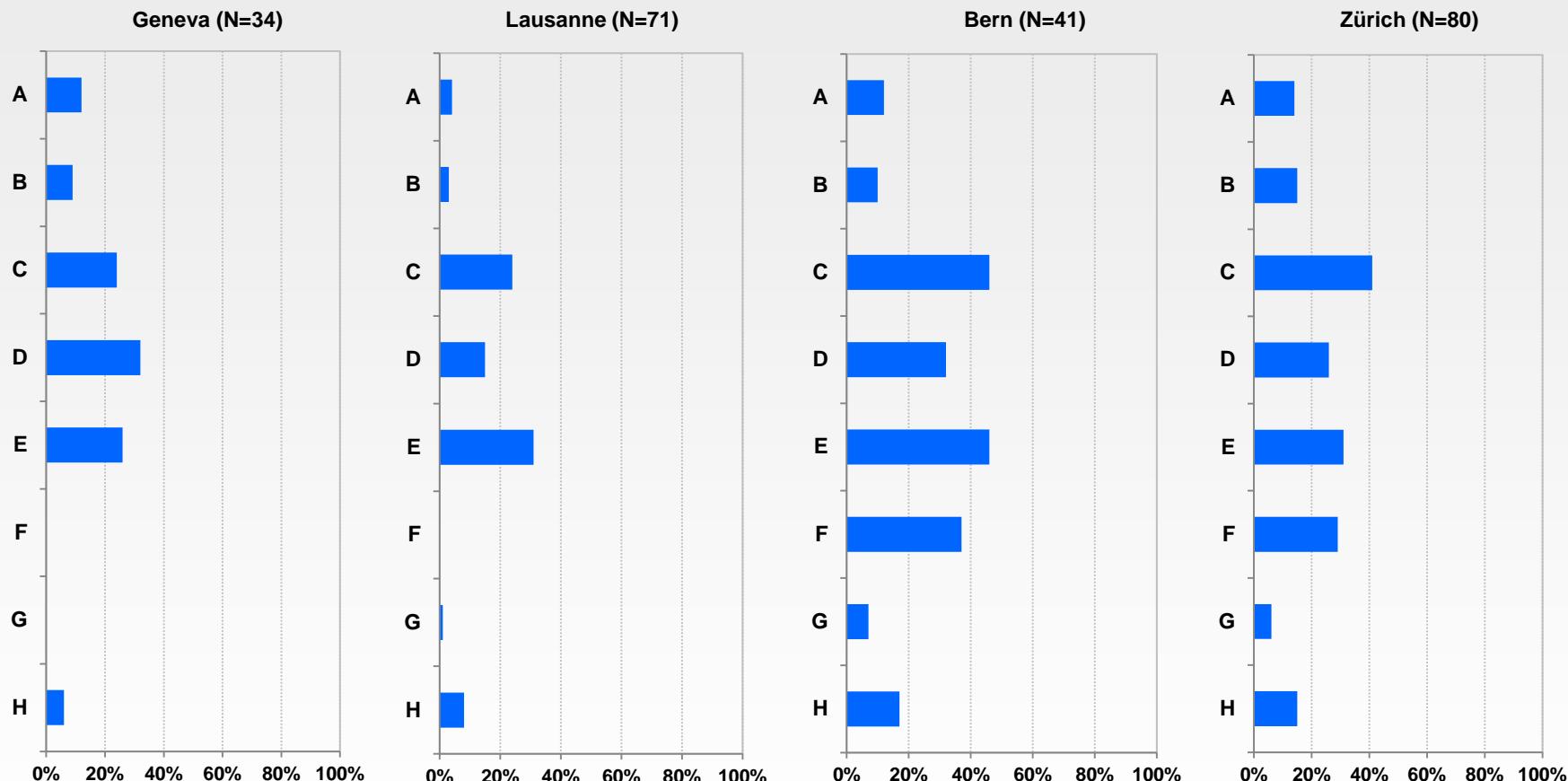
Reasons for specialty choice: Personal values/considerations

All 4 faculties (N=226/337)*



* 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)

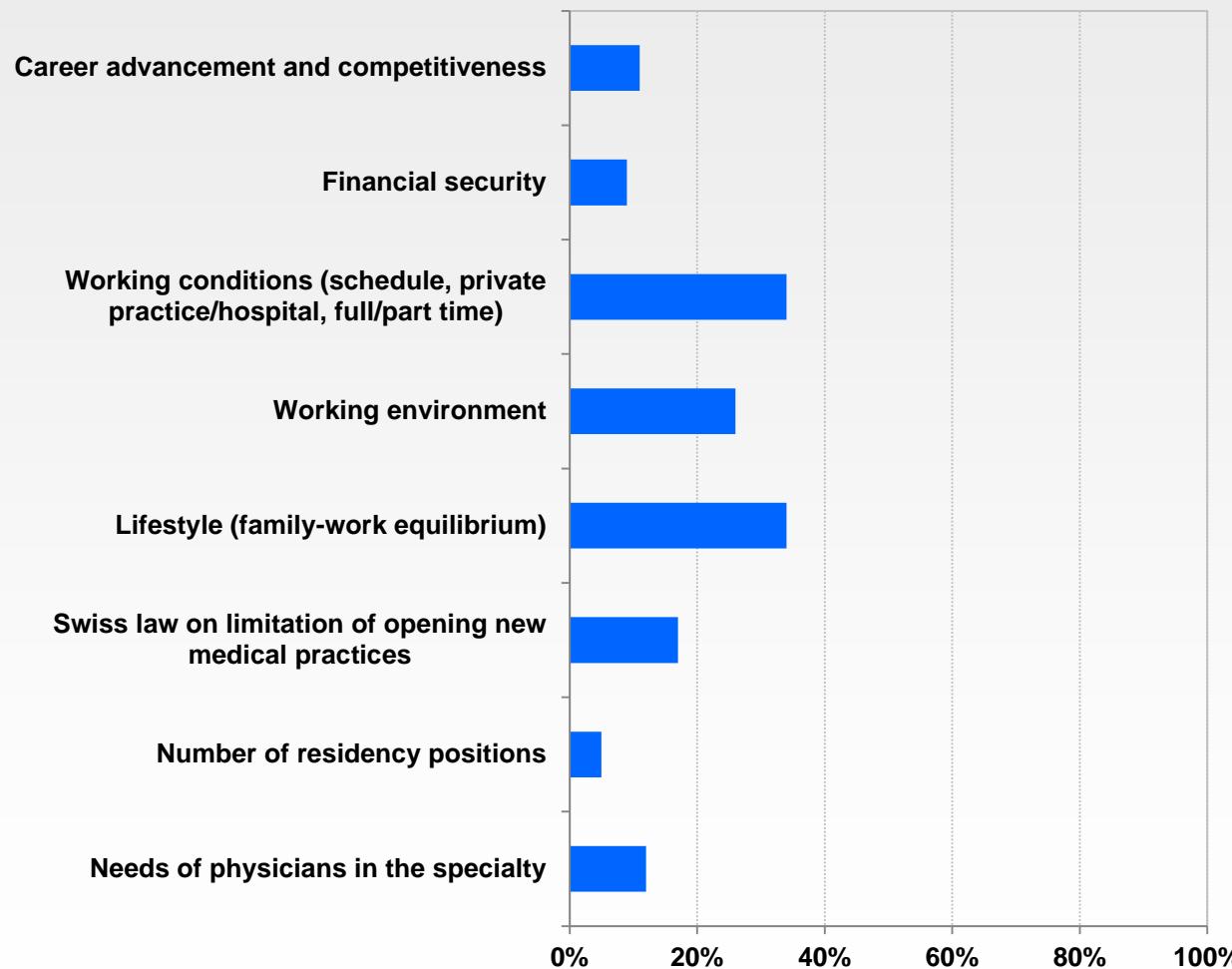
F Swiss law on limitation of opening new medical practices

G Number of residency positions

H Needs of physicians in the specialty

Reasons for specialty choice: Work extrinsic characteristics

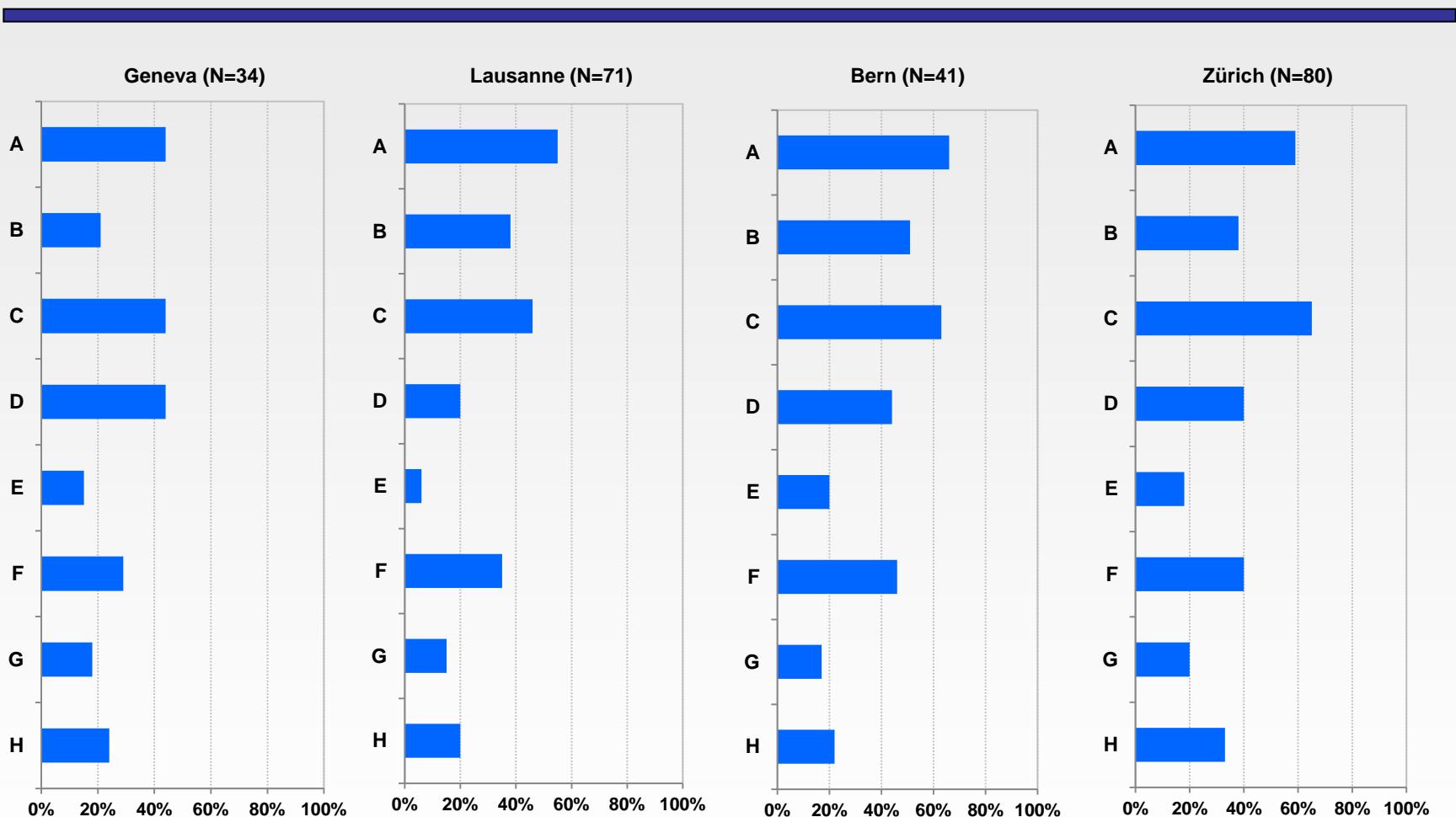
All 4 faculties (N=226/337)*



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

Reasons for specialty choice: Work intrinsic characteristics

By faculty

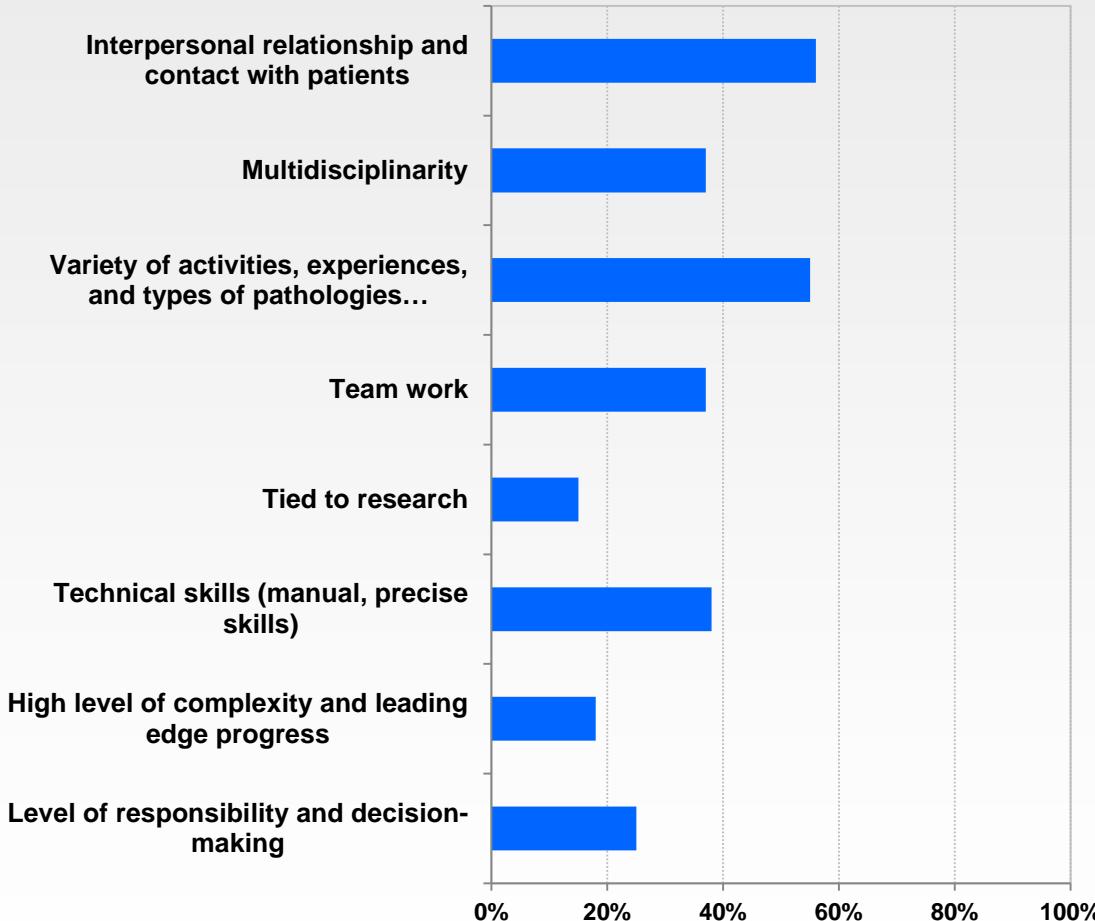


- A Interpersonal relationship and contact with patients
- B Multidisciplinarity
- C Variety of activities, experiences, and types of pathologies...
- D Team work

- 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

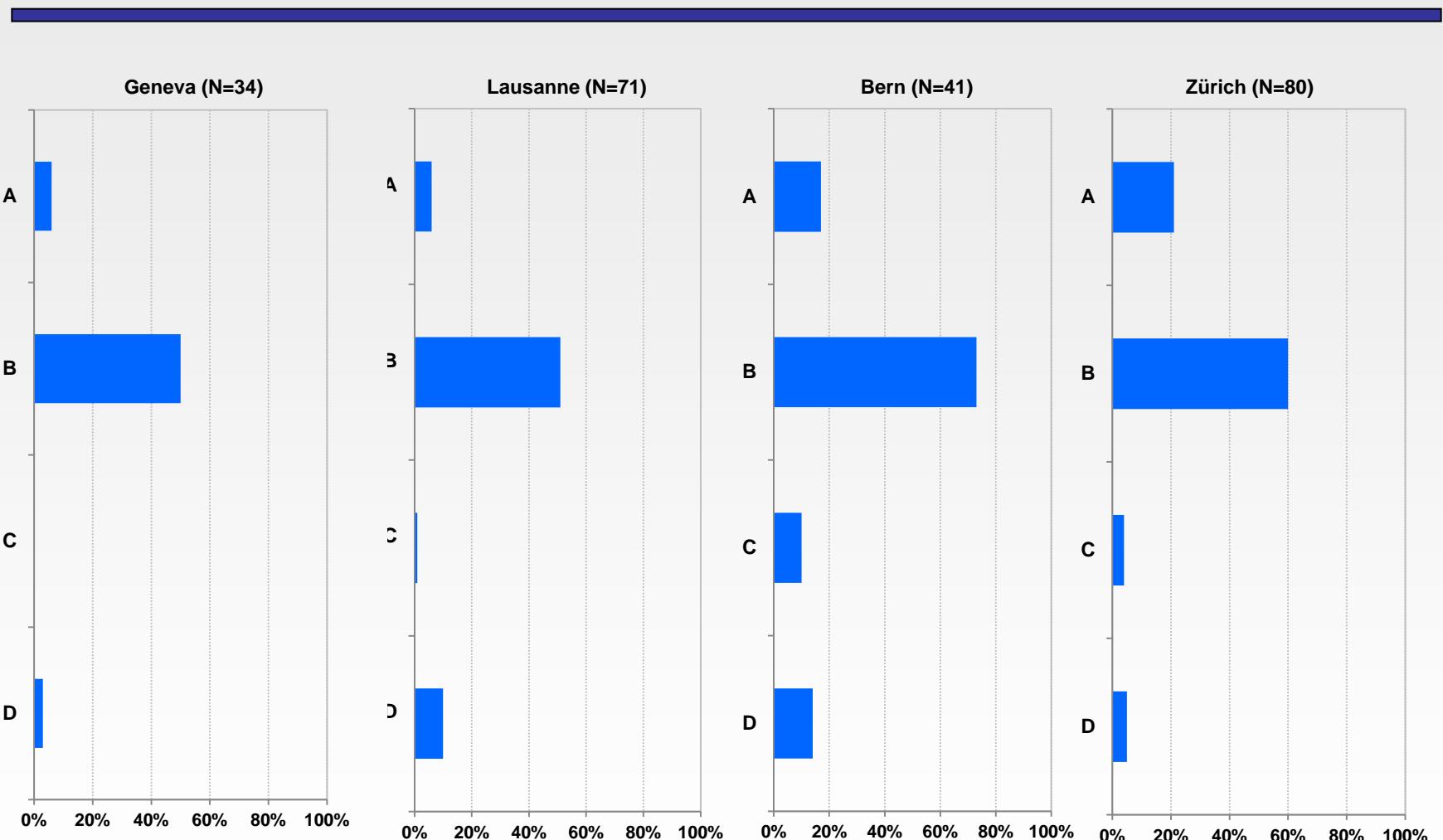
Reasons for specialty choice: Work intrinsic characteristics

All 4 faculties (N=226/337)*



* 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...)

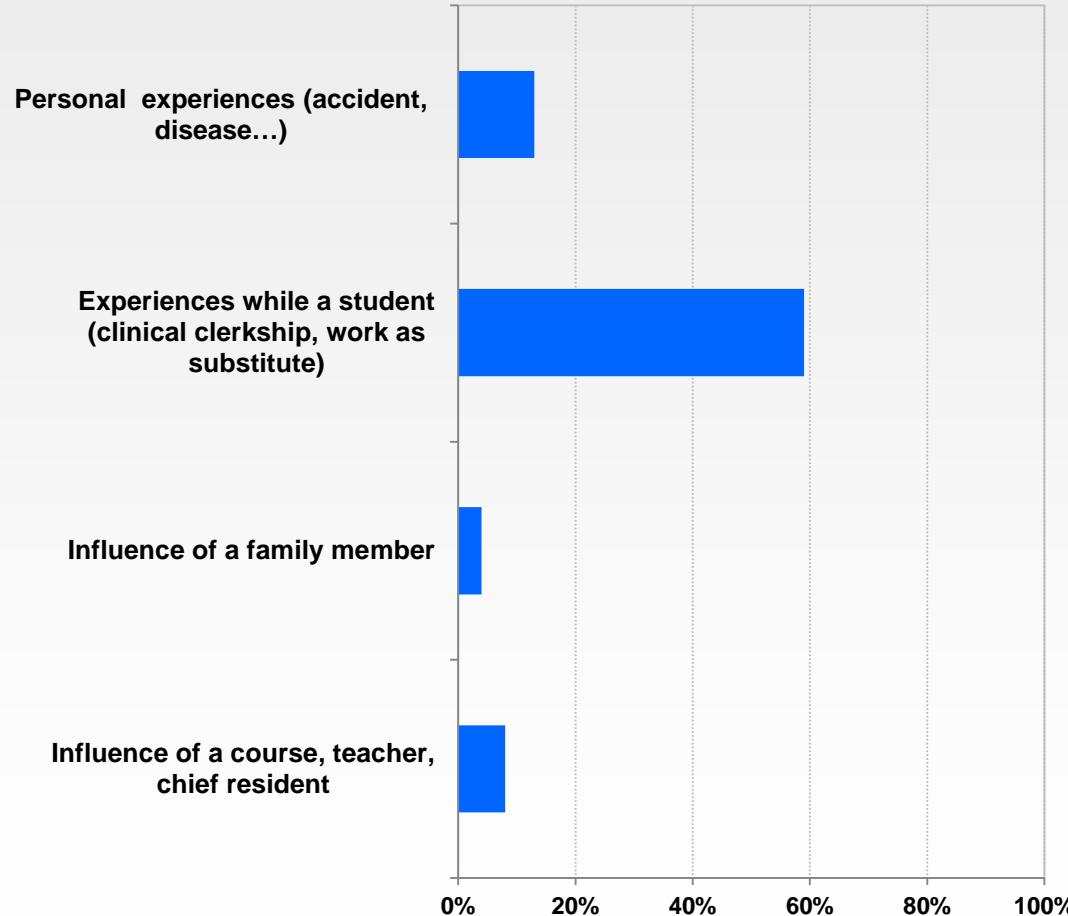
B Experiences while a student (clinical clerkship, work as substitute)

C Influence of a family member

D Influence of a course, teacher, chief resident

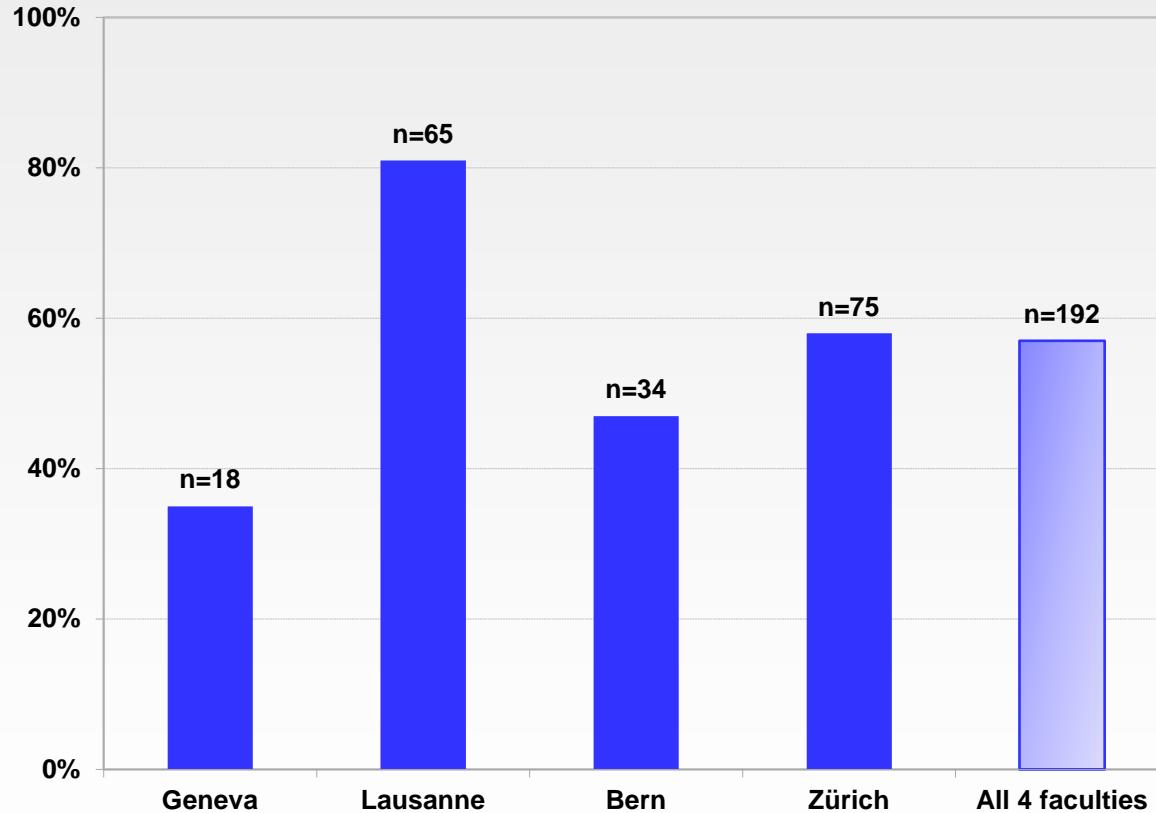
Reasons for specialty choice: Previous experiences

All 4 faculties (N=226/337)*

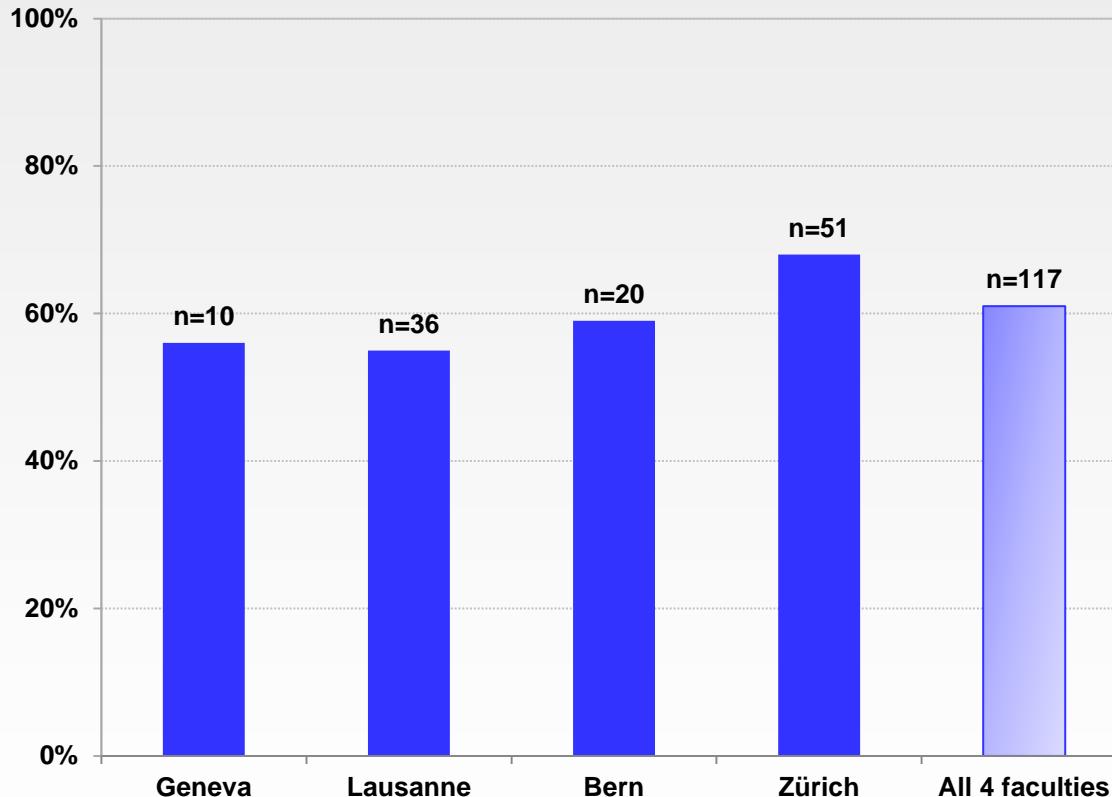


* Percentages based on the number of students having made a specialty choice

N and % of students who had been accepted to a first- year residency training program (N=192/337)



N and % of students with first year residency training in their selected specialty (N=117/192)*



* 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

FACULTY		Cantons**					Linguistic region**		
		Geneva	Vaud	Bern	Zürich	Other	Switzerland French-speaking	Switzerland German-speaking	Switzerland Italian-speaking
	Geneva (18/34)*	39% (7)	28% (5)	0% (0)	0% (0)	33% (6)	100% (18)	0% (0)	0% (0)
	Lausanne (65/59)*	3% (2)	50% (32)	11% (7)	2% (1)	34% (22)	94% (61)	2% (1)	3% (2)
	Bern (34/41)*	0% (0)	0% (0)	50% (17)	6% (2)	44% (15)	0% (0)	97% (33)	3% (1)
	Zürich (47/80)*	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	
192 (58%)		140 (42%)	
Residency in selected specialty	Residency not in selected specialty		
116* (62%)	70 *(38%)		
Have made specialty choice	Have not made specialty choice	Have made specialty choice	Have not made specialty choice
48 (26%)	22 (12%)	71 (51%)	69 (49%)
N= 332 (5 with no completed answers)			

Specialty and residency training choices

All 4 faculties

Specialty selected		Specialty not selected	
214 (64%)		120 (36%)	
Residency found	Residency not found	Residency found	Residency not found
141*(67%)	71* (33%)	50 (42%)	70 (58%)
Residency in selected specialty	Residency not in selected specialty		
88** (65%)	48** (35%)		
N= 334 (3 with no completed answers)			

* 2 with no completed answers

** 5 with no completed answers

Main conclusions: Career plan (1)

■ **Medicine as a career:**

- o Most Swiss students chose to study medicine between the age of 16 and 21
- o About 70% chose medicine with little or no hesitation

■ **Choice of type of career plan:**

- o 60% chose to do clinical practice
- o 17% chose to be in an academic career
- o 2% chose to be in a non-academic career
- o 16% were undecided

Main conclusions: Type of career plan (2)

- For those who chose an **academic career**, most students (90%) 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**:
 - 43% chose to be employed in a hospital
 - 36% chose to practice in a group of 3 or more physicians
 - 14% chose to be a partner with an other physician
 - 5% chose to practice in solo
 - 2% 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 (39%)**
 - Passionate for medicine (62%)
- **Work intrinsic characteristics (32%)**
 - Team work (49%)
 - Variety of activities, experiences, and types of pathologies... (48%)
 - Interpersonal relationship and contact with patients (42%)
 - Multidisciplinarity (29%)
 - Level of responsibility and decision-making (26%)
 - High level of complexity and leading edge progress (26%)
 - Technical skills (manual, precision skills) (24%)
- **Work extrinsic characteristics (20%)**
 - Working conditions (schedule, private practice/hospital, full/part time) (41%)
 - Lifestyle (family-work equilibrium) (38%)
 - Working environment (21%)
 - Financial security (21%)
- **Previous experiences (12%)**
 - Experiences while a student (clinical clerkship, work as substitute) (29%)

Main conclusions: Specialty choice (4)

- For Geneva, Bern and Zürich, about **two thirds** of the students **chose their medical specialty** in their senior years while the last third did not.
- For Lausanne, about **three fourths** of the students **chose their medical specialty** in their senior years while one fourth did not.
- Main reasons for not choosing specialty:
 - Difficulty **choosing among many** specialties (44%)
 - Having **not made the decision** yet (38%)

Main conclusions: Main specialty choice (5)

- 29% General Internal Medicine
- 14% Surgery
- 15% Pediatrics
- 6% Obstetrics-Gynecology
- 6% Psychiatry

Main conclusions: Specialty choice (6)

Main reasons for specialty choice

- **Personal values/ considerations (35%)**
 - Passionate for medicine (83%)
 - Have great interest and affinity for medicine (66%)
- **Work intrinsic characteristics (24%)**
 - Variety of activities, experiences, and types of pathologies... (53%)
 - Interpersonal relationship and contact with patients (53%)
 - Technical skills (manual, precise skills) (36%)
 - Multidisciplinarity (36%)
 - Team work (33%)
- **Previous experiences (14%)**
 - Experiences while a student (clinical clerkship, work as substitute) (55%)
- **Work extrinsic characteristics (12%)**
 - Working conditions (schedule, private practice/hospital, full/part time) (32%)
 - Lifestyle (family-work equilibrium) (32%)
 - Working environment (24%)

Main conclusions: Specialty and location of residency training (7)

■ Location of residency training:

- o Most students tended to choose to do their first years of residency training in a canton of their respective main speaking language.
- o For Lausanne, Bern and Zürich, about half of the students (47%-50%) choose to stay in the canton of their undergraduate training, for Geneva only 39%. 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** (64%):
 - Two thirds (67%) had found a residency program
 - Of those who had found a residency program, two thirds (65%) had a residency program in their selected specialty
- Of those students who **had not selected their specialty** (36%), less than half of the students (42%) had found a residency program.

Main conclusions: Specialty and residency training choices (9)

- About two thirds (58%) of the Swiss senior students had **found a residency program**.
- Of those who **had a residency program**, about two thirds(62%) had their residency program in their selected specialty.
- Of those who **had not find a residency program** (42%), about half (51%) had selected a specialty.

Main conclusions: Specialty and residency training choices (10)

Overall, it seems that:

- A third of the senior students (36%) 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 two thirds (62%) of the students started their residency in their selected specialty.
- Only 12% started their residency training program without having made their specialty.