

# Expectations of hospital pharmacists and pharmacy residents from Québec towards pharmacogenomics

M Harry<sup>1</sup>, A Lavoie<sup>1</sup>, S Dedenus<sup>1</sup>, N Letarte<sup>1</sup>, D Lebel<sup>1</sup>, JF Bussièrès<sup>1,2</sup>

<sup>1</sup>Unité de Recherche en Pratique Pharmaceutique, Département de pharmacie, CHU Sainte-Justine, Montréal, Québec, Canada

<sup>2</sup>Faculté de pharmacie, Université de Montréal, Montréal, Québec, Canada

## INTRODUCTION

Pharmacogenomics is the study of how genes affect a person's response to medications. Pharmacogenomic tests are currently available to identify genetic polymorphisms in drug-metabolizing enzymes but their use is still limited in clinical practice.

## OBJECTIVES

- Primary objective:** Describe and compare the perceptions and expectations of hospital pharmacists and pharmacy residents from Quebec towards pharmacogenomics
- Secondary objective:** Describe and compare the exposure and knowledge about available pharmacogenomics resources of hospital pharmacists and pharmacy residents from Quebec.

## METHODOLOGY

Between January and March 2016, hospital pharmacists and pharmacy residents from Quebec were invited to respond anonymously to an online survey of twenty-three questions (SurveyMonkey®, Palo Alto, CA, USA). The survey focuses on demographics, pharmacists expectations, fears, concerns and experience on pharmacogenomics. Only descriptive statistics were performed.

## RESULTS

Table 1 - Demographics

Characteristics	All respondents (n=173) (%)	Hospital pharmacists (n=137) (%)	Pharmacy residents (n=36) (%)
Sex, n(%)			
Men	48 (27.7)	33 (24.1)	15 (41.7)
Women	125 (72.3)	104 (75.9)	21 (58.3)
Age group (years), n(%)			
20-30	65 (37.6)	32 (23.4)	33 (91.7)
31-40	39 (22.5)	36 (26.3)	3 (8.3)
41-50	34 (19.6)	34 (24.8)	0 (0.0)
51-60	29 (16.8)	29 (21.2)	0 (0.0)
61-70	6 (3.5)	6 (4.4)	0 (0.0)
71-80	0 (0.0)	0 (0.0)	0 (0.0)
Contact with patients*, n(%)			
Yes	152 (87.9)	117 (85.4)	35 (97.2)
No	20 (11.6)	20 (14.6)	0 (0.0)

Figure 2 - Training on pharmacogenomics

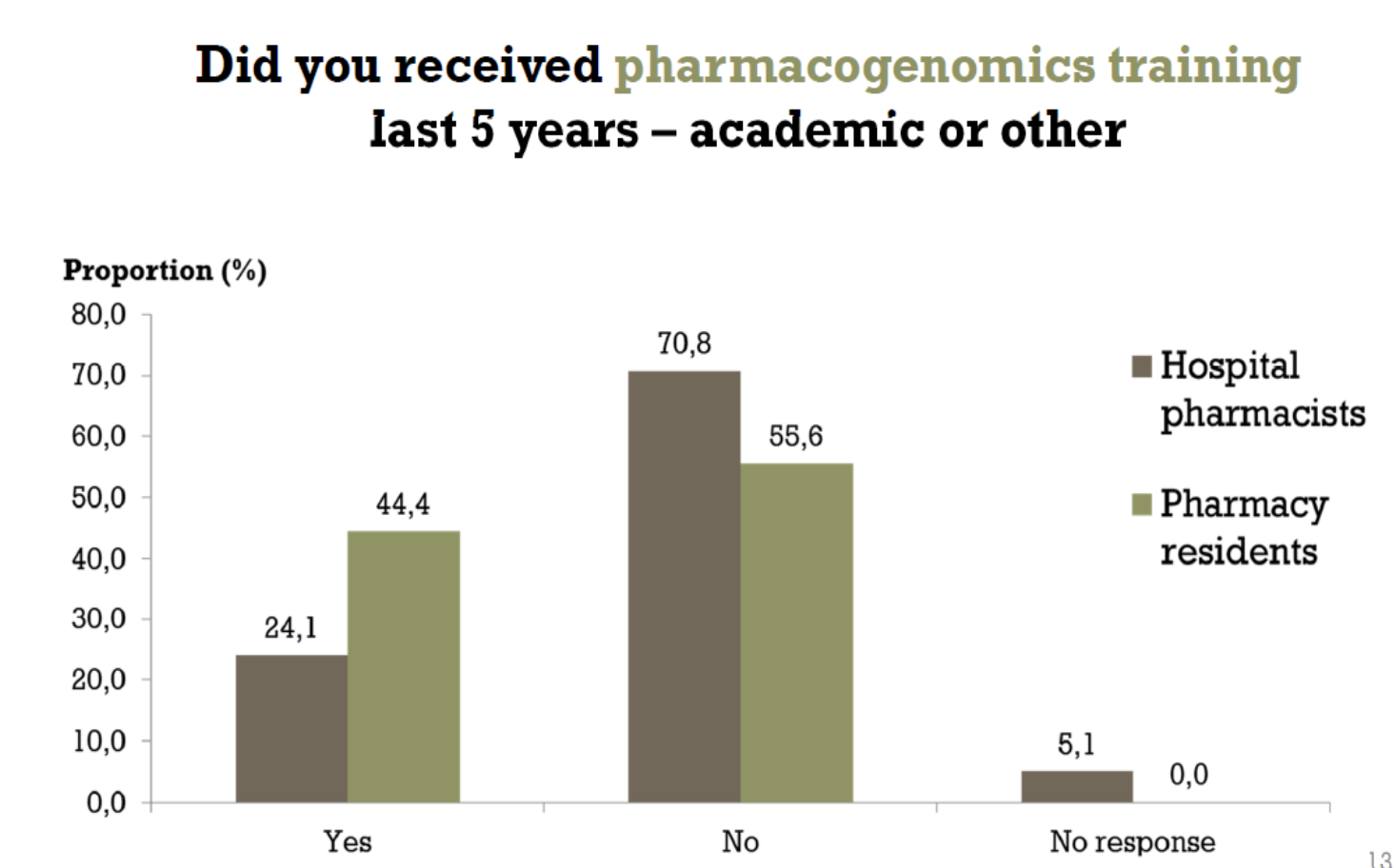


Figure 4

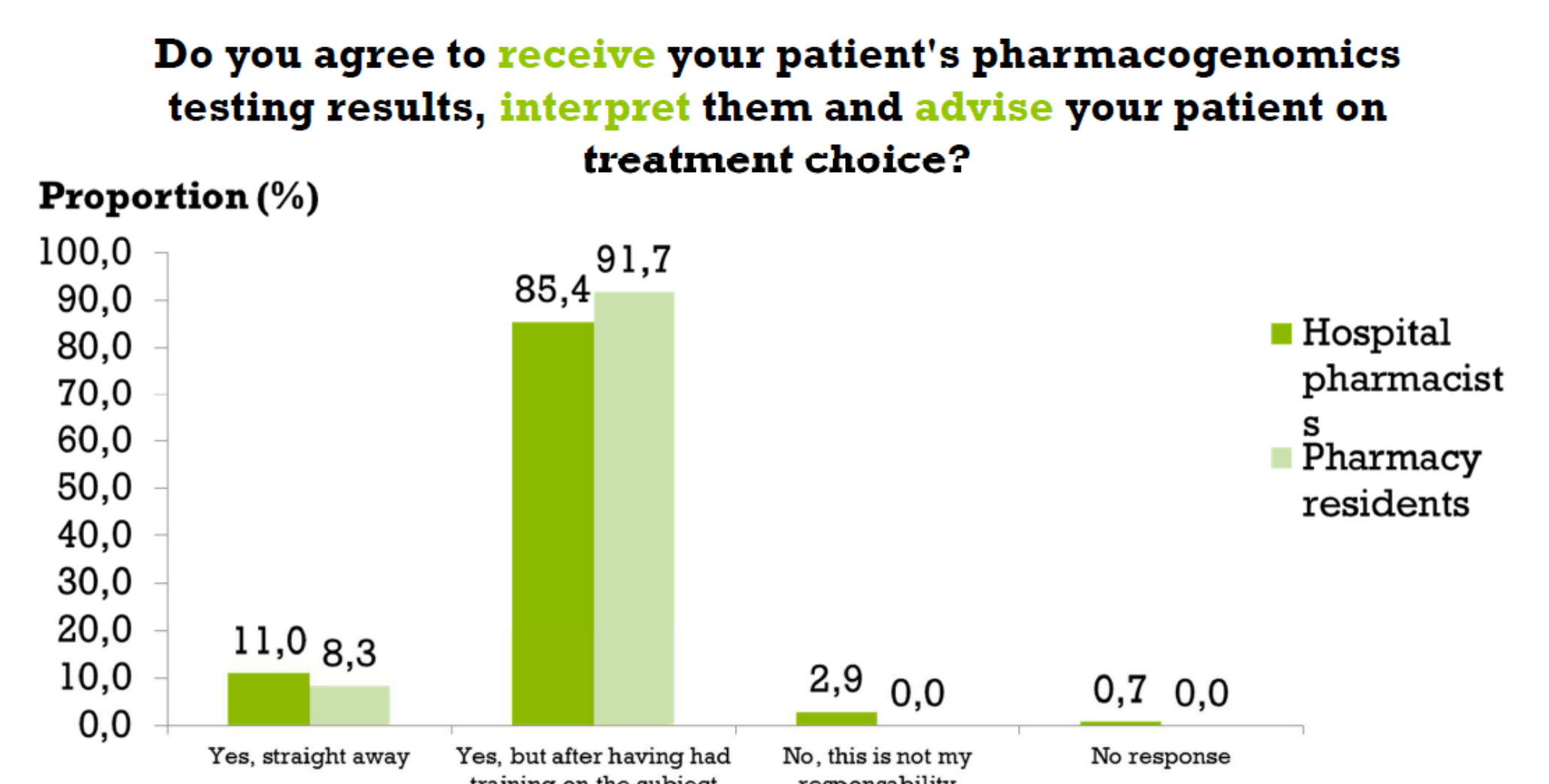


Figure 2

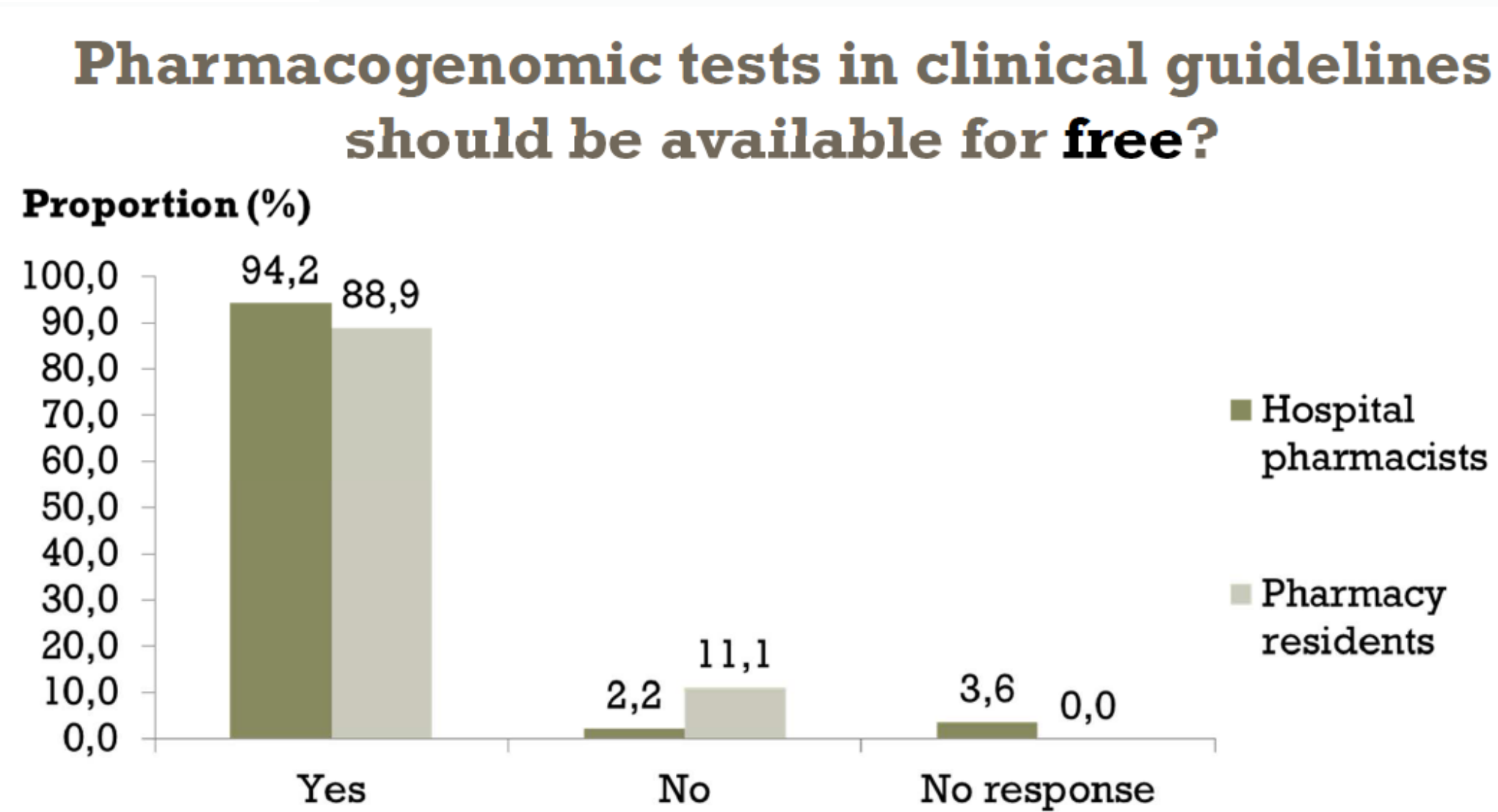
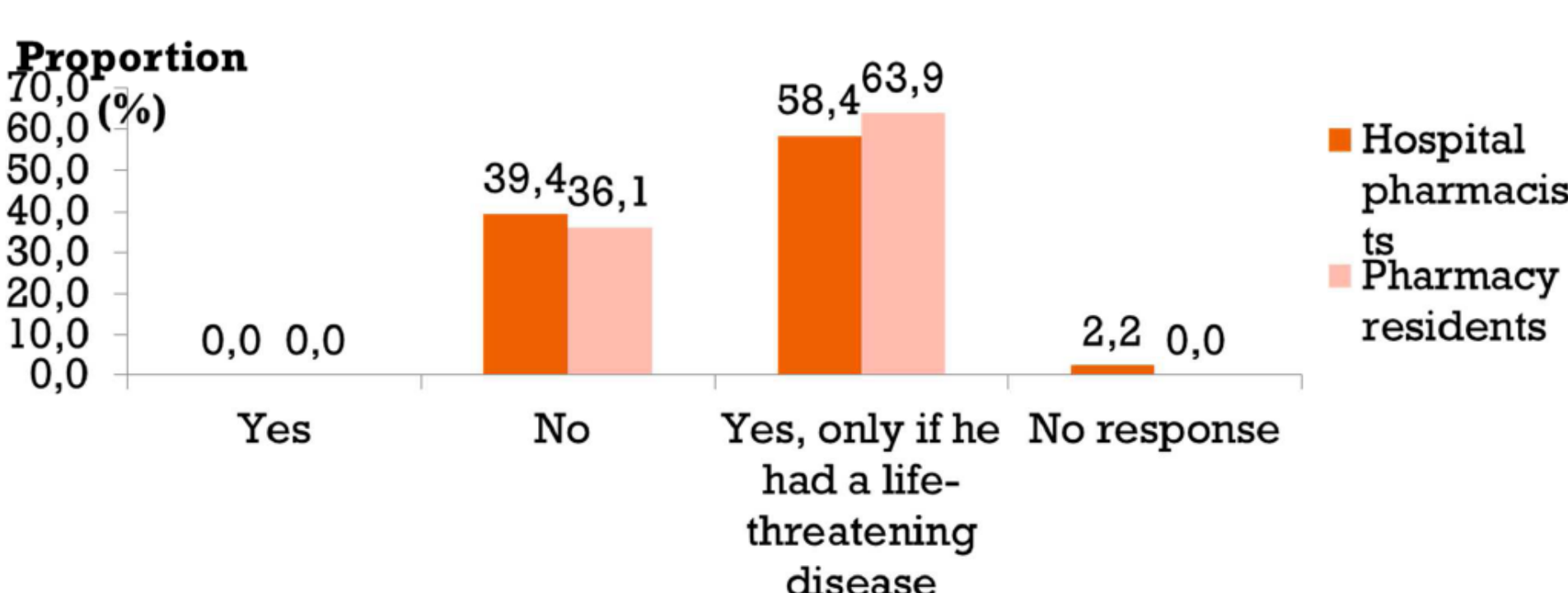


Figure 3

If a pharmacogenomic test revealed that the **only available drug** to treat your patient's disease is **ineffective** or leads to **severe side effects**, would you still advise your patient to take that medicine?



Figures 2 to 6 show the opinion of hospital pharmacists and pharmacy residents about pharmacogenomics key features.

Figure 5

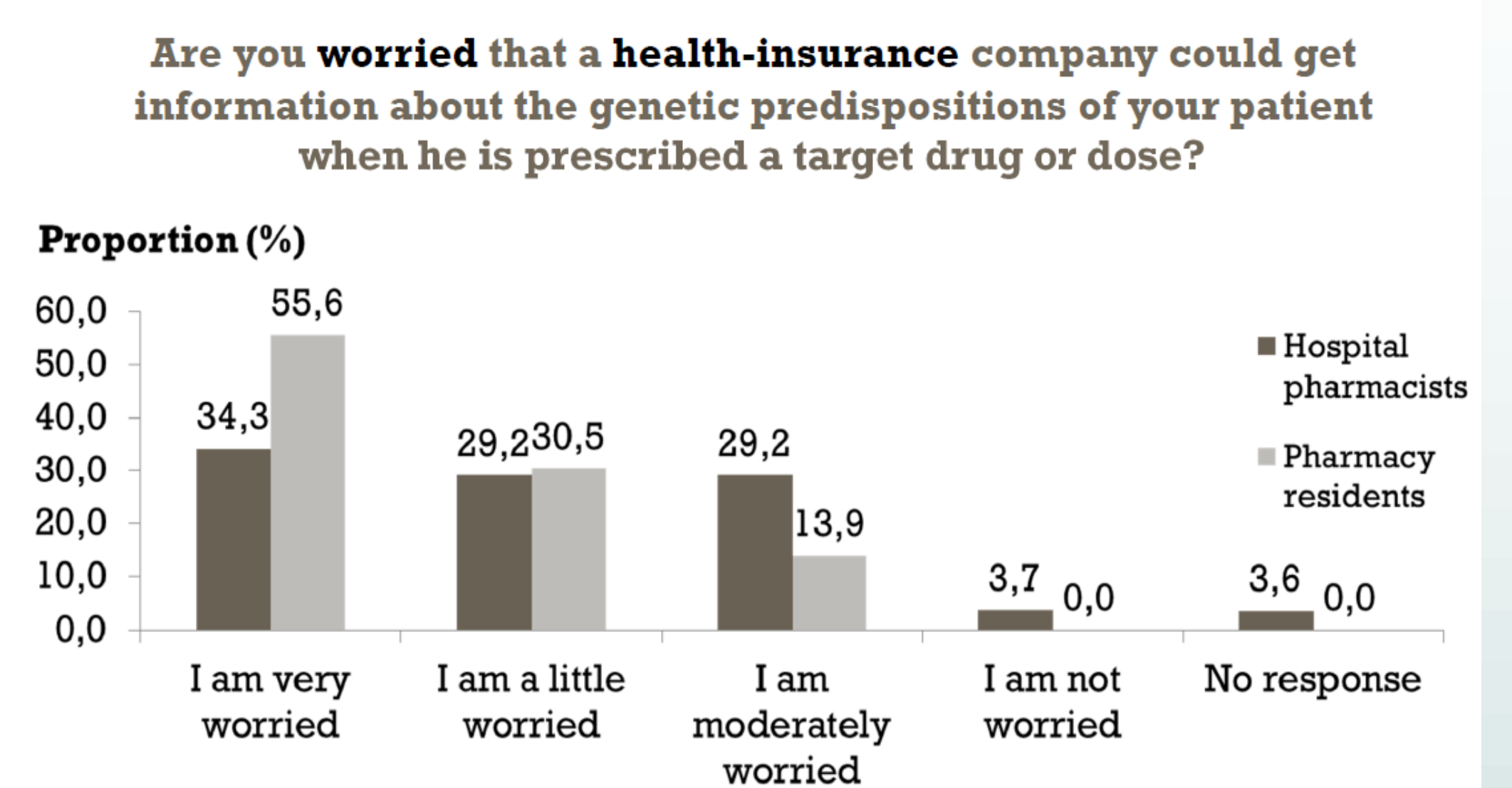
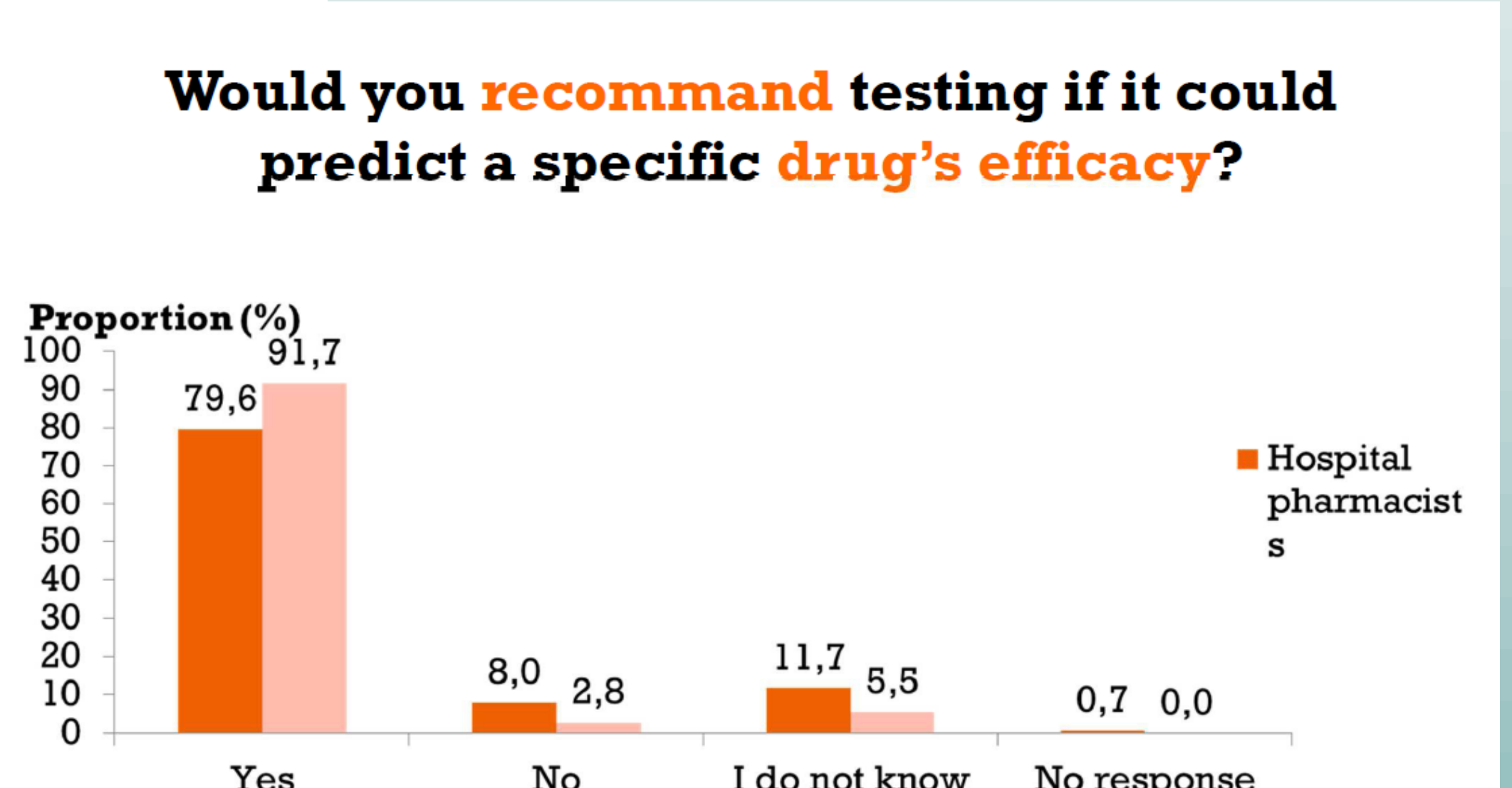


Figure 6



## DISCUSSION

- These results are similar to those published in a previous Quebec survey conducted in 2011.
- Limitation : the response rate is limited and the study population is heterogeneous with both pharmacists and pharmacy residents from Quebec and France.

## CONCLUSION

- Hospital pharmacists and pharmacy residents are open minded, positive and want to integrate pharmacogenomic in their practice.
- More training is required.