Landscape analysis of pharmacogenomic education within ISCC-PEG partner organizations

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Genomic medicine is a rapidly growing field

- Individualized care
 - Environment
 - Lifestyle
 - Genes
- Increased demand on providers

Increased need for readily available education

There is practitioner hesitancy in utilizing genomic medicine

Unprepared

- Lack of provider familiarity
- Uneven adoption of genomics

Barriers

- Limited time
- Quantity of information
- Where information is located

Hockings JK et al. *Cleve Clin J Med.* 2020 Korf BR, et al. *Genetics in Medicine.* 2014 Manolio TA, et al. *Genetics in Medicine.* 2014

A landscape analysis is a new approach

Limitations to prior studies

- · Learners' perspective only
- Previously minimal direct feedback from organizations

 Goal: Determine gaps in pharmacogenomic education across ISCC-PEG partner organizations



Aim 1 is to determine the <u>currently available PGx education</u> within organizations in ISCC-PEG

Aim 2 is to determine the <u>perceived barriers</u> to PGx education implementation

Aim 3 is to determine the <u>opinions on helpful PGx educational</u> <u>materials</u>

Methods

- ISCC-PEG and IRB approved Qualtrics survey
- ISCC-PEG mailing list (n=272)
 - Open for 6 weeks
 - 25.7% response rate
- Answer as individual or on behalf of organization
- Domains:
 - Currently available education
 - Barriers to implementation
 - Perceived helpfulness of educational materials

Demographics

- 70 unique responses
 - 28 individuals
 - 46 from organizations
- 37 unique organizations

Group	# of Organizations (n=37)	
Professional Societies	13	
Medical Centers	11	
Educators	6 4	
Industry		
Research Groups	3	

Variety of professions represented

Percent of Organizations which Represent a Specifc Profession (n=37)



95% of organizations have education

Amount of Education Available within Grouped Organizations (n=35)

9

Almost Complete Set – 58% have an almost **Need Minor Additions** complete set of resources or need minor additions **Need Major Additions** Hedical Centers ceities Nedical Centers Societies Nedical Societies Protessional Societies Protessional Societies Almost no Resources

There are fewer organizations with genomic education

Amount of Genomic Education Available within Grouped Organizations (n=31)

89% of those with any education have genomic education

54% felt they needed major additions or have almost no resources



68% of organizations have PGx education PGx Education Available within Grouped Organizations (n=25)



PGx education domains vary



Barriers to incorporation of PGx education Significant/Somewhat a Barrier Not a Barrier

	Ication	a Barrier	Not a Barrier
Education based	Maintaining up to date PGx curriculum –	100%	0%
	Lack of PGx efficacy/effectiveness -	92 %	8%
	Unknown PGx resources _ available outside of org	82 %	19%
	Lack of PGx edu resources _ available within org	75%	25%
	Availability of PGx CE –	50%	50%
	Lack of member expertise in PGx –	80%	30%
	Perceptions PGx is not applicable/relevant -	67%	33%
	Lack of PGx focus w/in organization -	60%	40%

Education Basec

Helpful PGx educational materials



Conclusions

Most organizations have PGx education, but require major additions

• Barriers

- Up to date curriculum
- Access to available education

 Many organizations view materials ISCC-PEG is already creating as valuable

- Creation of educational materials with live sessions
- Increase member involvement

Future directions

Post hoc analysis

- Between profession differences
- Include individual responses
- Interviews with interested respondents
- PGx working group to continue development of materials
 - May include domains where education is needed
 - Partnering with specific organizations to bolster materials

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Survey Participants

Mentor

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