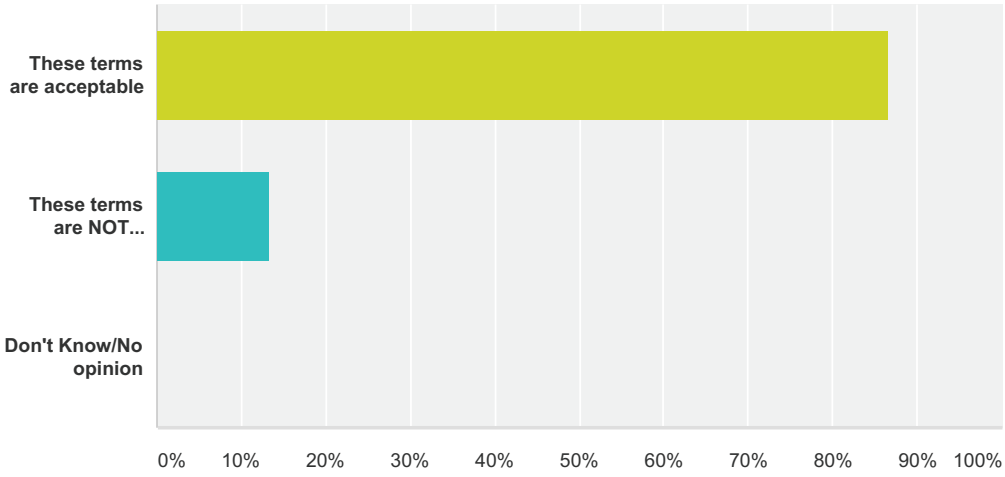
Q1 Please indicate your acceptance of the set of terms for allele functional status (shown in blue in Example 1 and 2 above) for drug metabolizing enzymes (DPYD, TPMT, CYP2C19, CYP2D6, CYP2C9, CYP3A5, and UGT1A1). These terms were the top selected terms in Survey 3. The tables above provide examples of how these terms will be used in a CPIC guideline (allele functional status terms are in blue).Increased function, normal function, decreased function, no function

Answered: 45 Skipped: 1

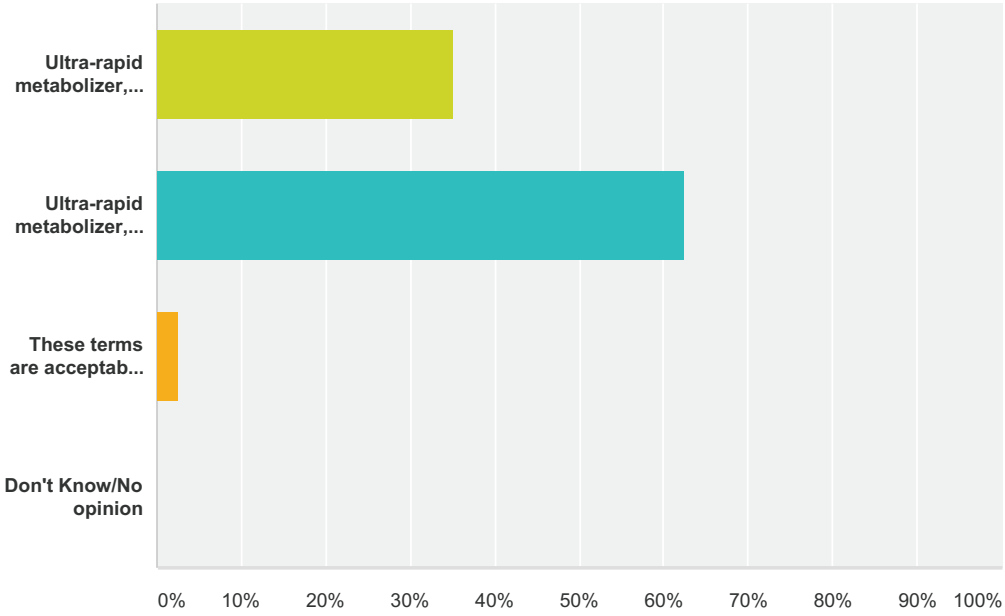


Answer Choices	Responses	
These terms are acceptable	86.67%	39
These terms are NOT acceptable. You will be redirected to another question.	13.33%	6
Don't Know/No opinion	0.00%	0
Total		45

#	Comments:	Date
1	Not a fan of "no function" as it is not always correct. The other terms are fine.	7/24/2015 1:21 PM
2	If adopted, then CPIC must publish alleles and allele label.	7/21/2015 2:00 PM
3	Except would prefer Intermediate Metabolizer in all cases because one could classify a Poor Metabolizer as a Decreased Metabolizer. Also I would prefer non-functioning alleles to no function alleles.	7/14/2015 6:13 PM

Q2 Please indicate ONE set of terms that you find most appropriate to describe phenotype (shown in red in Examples 1 and 2 above) for all drug metabolizing enzymes (CYP2D6/CYP2C19/CYP2C9/CYP3A5/DPYD/TPMT/UGT1A1).The tables above provide examples of how these terms will be used in a CPIC guideline (phenotype terms are in red).

Answered: 40 Skipped: 6



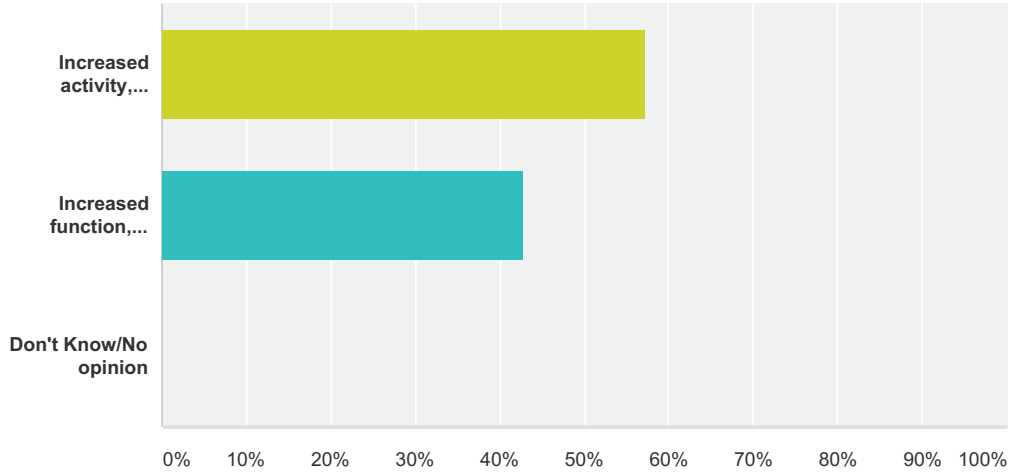
Answer Choices	Responses
Ultra-rapid metabolizer, rapid metabolizer, normal metabolizer, intermediate metabolizer, poor metabolizer	**35.00%** 14
Ultra-rapid metabolizer, rapid metabolizer, normal metabolizer, decreased metabolizer, poor metabolizer	**62.50%** 25
These terms are acceptable for CYP enzymes (CYP2D6/CYP2C19/CYP2C9/CYP3A5) but NOT other drug metabolizing enzymes (DPYD/TPMT/UGT1A1). You will be redirected to alternative questions.	**2.50%** 1
Don't Know/No opinion	**0.00%** 0
Total	**40**

#	Comments:	Date
1	I prefer "decreased" over "intermediate," because "intermediate" is a relative term that is undefined when taken out of context. If a lab report (or a clinician's later restatement of a lab report) simply states "intermediate metabolizer," an uninformed reader might take that as somewhere between normal and ultra rapid rather than somewhere between normal and poor. This still leaves the problem of some people not understanding that "poor" denotes less activity than "decreased." Ideally, we would use terms on a continuum, analogous to "rapid" and "ultra-rapid." But it is a bit late in the process to re-open that discussion.	7/27/2015 2:53 PM

2	I can live with a system that has these terms for P450s and a separate set for DPD/TPMT/UGT.	7/24/2015 1:14 PM
3	see previous comments for reasoning	7/14/2015 6:15 PM
4	I still prefer "activity" over "metabolizer", but evidently the historical term is deeply engrained	7/13/2015 11:41 AM

Q3 You were redirected to this question because you indicated that you did not find the top selected terms from Survey 3 acceptable (use the "Prev" button below to return to the previous question). Below you will find the next 2 top selected terms from Survey 3. Please indicate one set of terms for allele functional status (shown in blue in Examples 1 and 2) for drug metabolizing enzymes (DPYD, TPMT, CYP2C19, CYP2D6, CYP2C9, CYP3A5, and UGT1A1). The tables above provide examples of how these terms will be used in a CPIC guideline:

Answered: 7 Skipped: 39

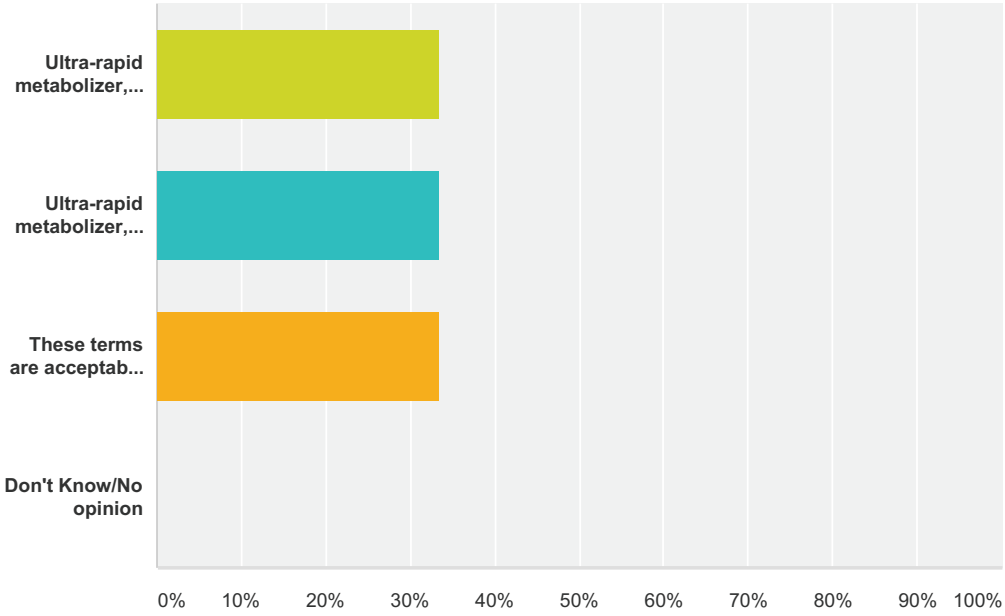


Answer Choices	Responses	
Increased activity, normal activity, decreased activity, no activity (see Example 1 above)	**57.14%**	4
Increased function, normal function, decreased function, non-functional (see Example 2 above)	**42.86%**	3
Don't Know/No opinion	**0.00%**	0
Total		**7**

#	Comments:	Date
1	I relate enzymes with activity and physiological process with function.	7/29/2015 12:28 PM
2	Agree with the word "activity" vs function. Do not agree with the "no activity" term.	7/24/2015 1:24 PM

Q4 Please indicate ONE set of terms that you find most appropriate to describe phenotype (shown in red in Examples 1 and 2 above) for all drug metabolizing enzymes (CYP2D6/CYP2C19/CYP2C9/CYP3A5/DPYD/TPMT/UGT1A1). The tables above provide examples of how these terms will be used in a CPIC guideline (phenotype terms are in red):

Answered: 6 Skipped: 40

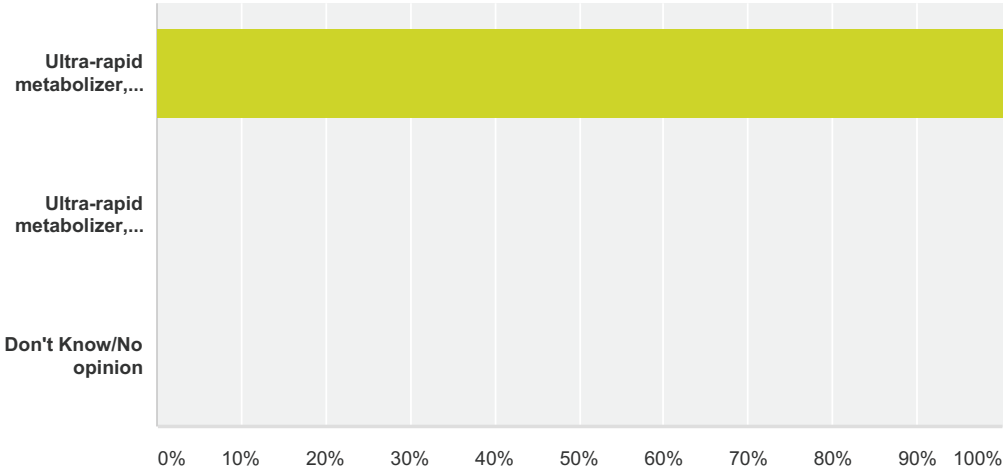


Answer Choices	Responses
Ultra-rapid metabolizer, rapid metabolizer, normal metabolizer, decreased metabolizer, poor metabolizer (these were the top selected terms in Survey 3)	**33.33%** 2
Ultra-rapid metabolizer, rapid metabolizer, normal metabolizer, intermediate metabolizer, poor metabolizer	**33.33%** 2
These terms are acceptable for CYP enzymes (CYP2D6/CYP2C19/CYP2C9/CYP3A5) but NOT other drug metabolizing enzymes (DPYD/TPMT/UGT1A1). You will be redirected to alternative questions.	**33.33%** 2
Don't Know/No opinion	**0.00%** 0
Total	**6**

#	Comments:	Date
1	hard to differentiate between decreased and poor	7/29/2015 12:28 PM
2	the terms that I find acceptable are the ones listed in the first option for this question.	7/13/2015 12:16 PM

Q5 Please indicate ONE set of terms that you find most appropriate to describe phenotype (shown in red in Example 1 above) for all CYP metabolizing enzymes (CYP2D6/CYP2C19/CYP2C9/CYP3A5).The tables above provide examples of how these terms will be used in a CPIC guideline:

Answered: 4 Skipped: 42

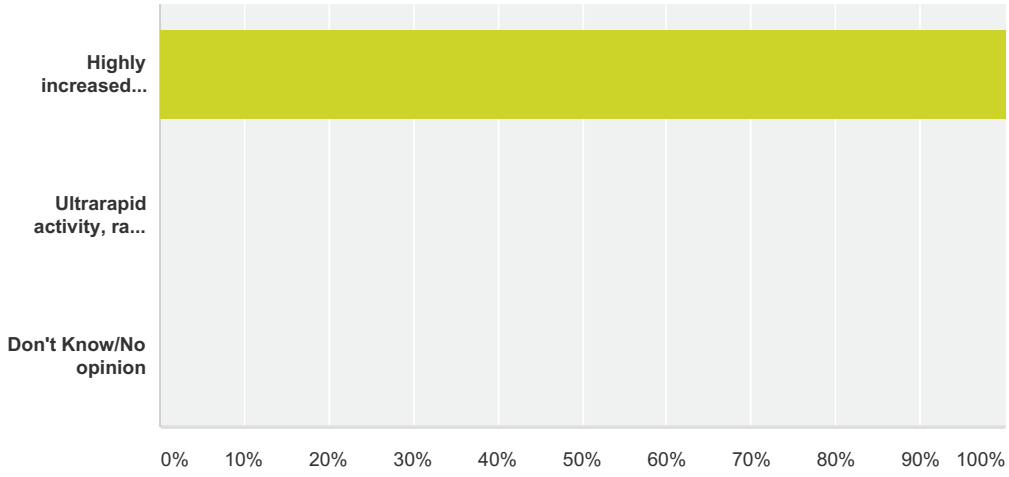


Answer Choices	Responses
Ultra-rapid metabolizer, rapid metabolizer, normal metabolizer, decreased metabolizer, poor metabolizer (these were the top selected terms in Survey 3)	**100.00%** 4
Ultra-rapid metabolizer, rapid metabolizer, normal metabolizer, intermediate metabolizer, poor metabolizer	**0.00%** 0
Don't Know/No opinion	**0.00%** 0
Total	**4**

#	We encourage you to comment about why you chose that set of terms:	Date
	There are no responses.	

Q6 Please indicate ONE set of terms that you find most appropriate to describe phenotype (shown in red in Example 2 above) for all other metabolizing enzymes (i.e. DPYD, UGT1A1, TPMT). The tables above provide examples of how these terms will be used in a CPIC guideline:

Answered: 4 Skipped: 42

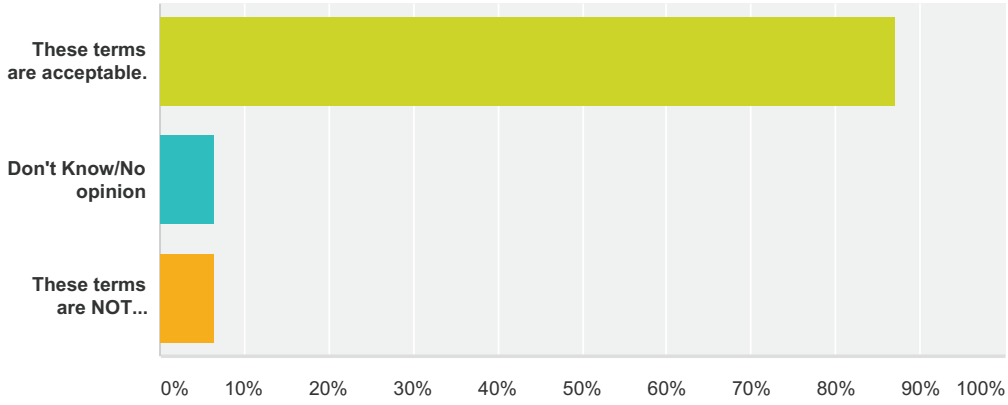


Answer Choices	Responses
Highly increased activity, increased activity, normal activity, decreased activity, no activity (these were the top selected terms in Survey 3)	**100.00%** 4
Ultrarapid activity, rapid activity, normal activity, decreased activity, poor activity	**0.00%** 0
Don't Know/No opinion	**0.00%** 0
Total	**4**

#	We encourage you to comment about why you chose that set of terms:	Date
1	Primarily I am concerned with UGT as SNP located upstream SNPS remote from the start site can affect UGTs and some show CNV rather than individual SNPs, thus given what we now know, I would like to distinguish these from those in the CYP star system. Activity is also influenced by SNPs in transcription factors.	7/27/2015 2:50 PM

Q7 Please indicate your acceptance of the set of terms for allele functional status (shown in blue in Example 1 above) for transporters (e.g., SLCO1B1). Please note these were also the top selected terms in Survey 3 for allele functional status for drug metabolizing enzymes. Increased function, normal function, decreased function, no function

Answered: 46 Skipped: 0

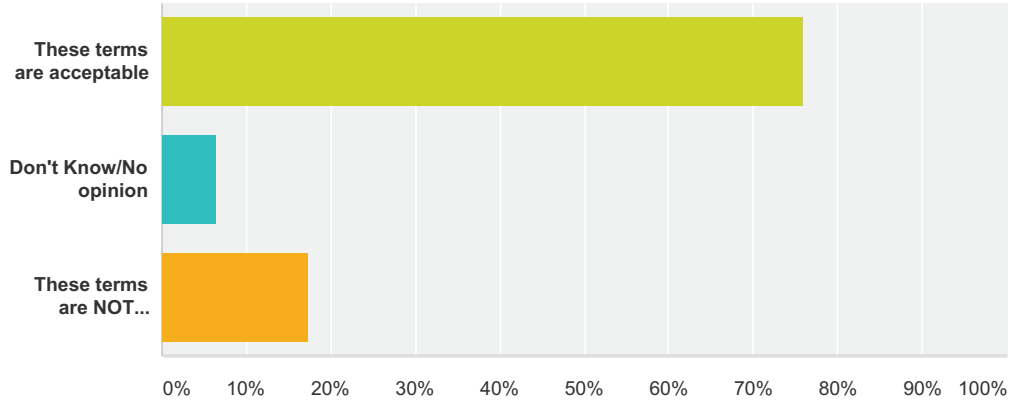


Answer Choices	Responses	
These terms are acceptable.	**86.96%**	40
Don't Know/No opinion	**6.52%**	3
These terms are NOT acceptable. Please explain.	**6.52%**	3
Total		**46**

#	These terms are NOT acceptable. Please explain.	Date
1	Will these terms be extended to other transporters?	7/27/2015 2:45 PM
2	I would substitute "non-functional" for "no function."	7/21/2015 1:20 PM
3	I think there could be confusion between "decreased" and "poor" within the hierarchy	7/20/2015 11:56 AM

Q8 The following terms were acceptable to 69% of experts in Survey 3 for transporter phenotype (allele descriptive terms-shown in red in Example 1 above) (e.g., SLCO1B1). Please indicate your acceptance of the set of terms:Increased Function, Normal Function, Decreased Function, Poor Funciton

Answered: 46 Skipped: 0

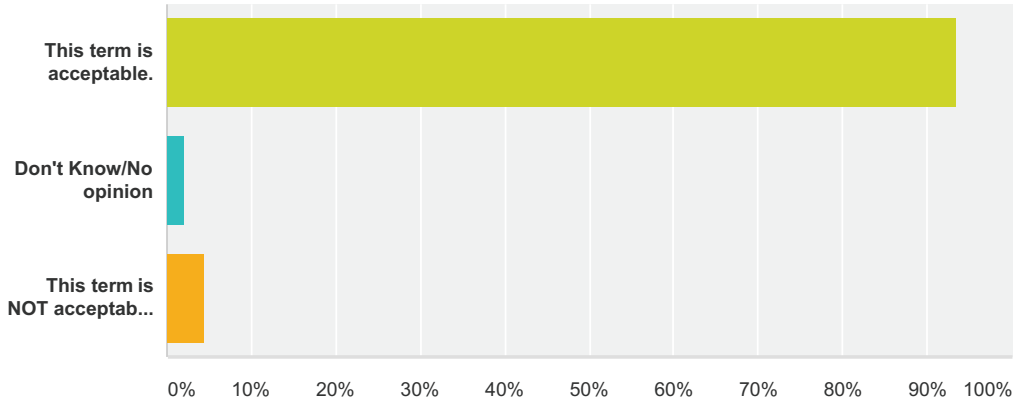


Answer Choices	Responses	
These terms are acceptable	**76.09%**	35
Don't Know/No opinion	**6.52%**	3
These terms are NOT acceptable. Please explain.	**17.39%**	8
Total		**46**

#	These terms are NOT acceptable. Please explain.	Date
1	I think it might be hard to differentiate between decreased and poor function.	7/29/2015 12:34 PM
2	Will these terms be extended to other transporters?	7/27/2015 2:45 PM
3	Suggest using "transport," "transporter function" or another term in place of "function" in order to distinguish this nomenclature from the allele functional status terms.	7/27/2015 1:50 PM
4	Decreased and Poor and two very related terms and may be confusing to a non clinician	7/27/2015 11:23 AM
5	Unclear what the difference is between decreased function and poor function	7/20/2015 3:07 PM
6	I think there could be confusion between "decreased" and "poor" within the hierarchy	7/20/2015 11:56 AM
7	Would still prefer Intermediate for decreased as explained in my first set of comments	7/14/2015 6:16 PM
8	Assuming the allele functional status terms in Q3 are approved, what phenotype would be used for someone with two "no function" alleles? "Poor function" seems inappropriate because while it might be biologically accurate, it is not intuitive.	7/13/2015 11:45 AM

Q9 Please indicate your acceptance of the set of terms below to describe allele function where there is no literature describing function or the allele is novel. Unknown function

Answered: 46 Skipped: 0

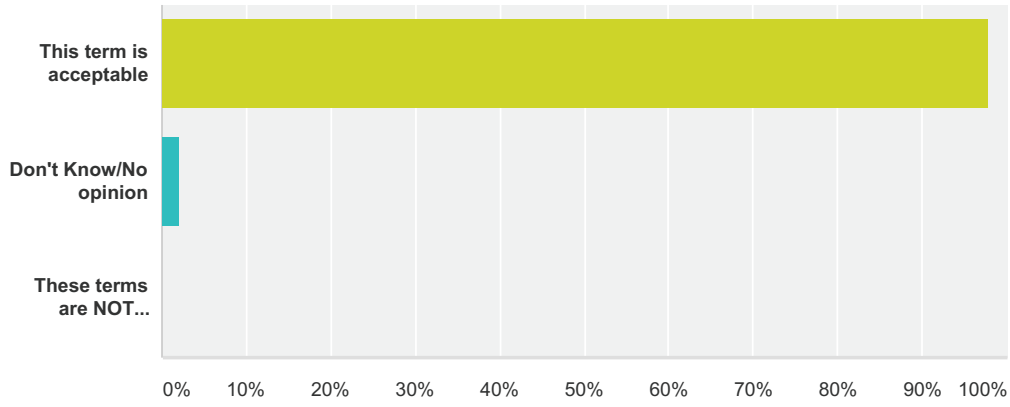


Answer Choices	Responses	
This term is acceptable.	**93.48%**	43
Don't Know/No opinion	**2.17%**	1
This term is NOT acceptable. Please explain.	**4.35%**	2
Total		**46**

#	This term is NOT acceptable. Please explain.	Date
1	May be worth clarifying if 'literature' simply refers to published or archived data or if this may also extend to bioinformatic prediction of functional consequence.	7/24/2015 2:37 PM
2	I'm pretty sure I'm in the minority on this in CPIC but I believe this should also be of 'uncertain' clinical significance as this will be consistent with ACMG recommendations and will be what is used in clinical genetic testing labs. I understand the desire to want to distinguish variants with no data from those with conflicting data; however, this situation is encountered every week by our clinical exome group and is very easily integrated (and understood) as 'uncertain'. The clinicians we deal with understand this and ultimately they and their genetic counselors will also typically look up variant information independently. Adding yet another term to the equation will ultimately result in further inconsistencies in my opinion.	7/13/2015 4:46 PM

Q10 Please indicate your acceptance of the set of terms below to describe allele function where the literature supporting function is conflicting. Uncertain function

Answered: 46 Skipped: 0

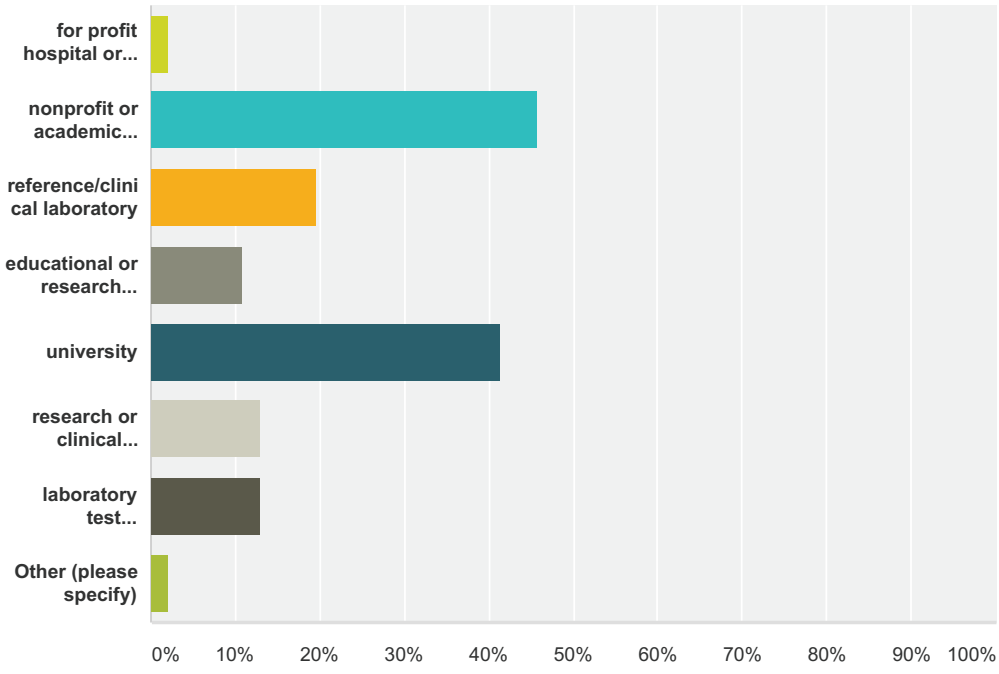


Answer Choices	Responses	
This term is acceptable	**97.83%**	45
Don't Know/No opinion	**2.17%**	1
These terms are NOT acceptable. Please explain.	**0.00%**	0
Total		**46**

#	These terms are NOT acceptable. Please explain.	Date
	There are no responses.	

Q11 Which of the following describes your workplace setting (choose all that apply)?

Answered: 46 Skipped: 0

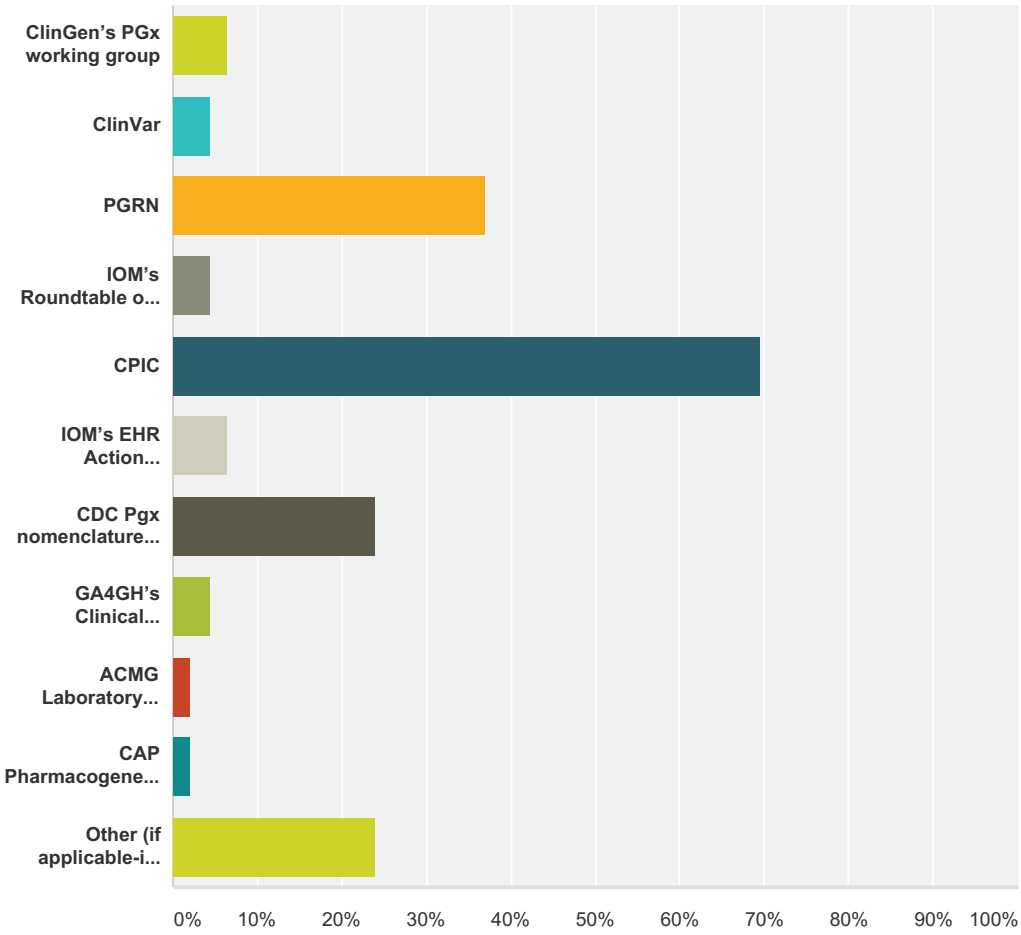


Answer Choices	Responses	
for profit hospital or clinic	**2.17%**	1
nonprofit or academic hospital or clinic	**45.65%**	21
reference/clinical laboratory	**19.57%**	9
educational or research resource	**10.87%**	5
university	**41.30%**	19
research or clinical institute	**13.04%**	6
laboratory test interpretation service	**13.04%**	6
Other (please specify)	**2.17%**	1
Total Respondents: 46		

#	Other (please specify)	Date
1	manufacturing and research laboratory	7/14/2015 6:19 PM

Q12 Which of the following groups are you associated/a member (choose all that apply)?

Answered: 46 Skipped: 0



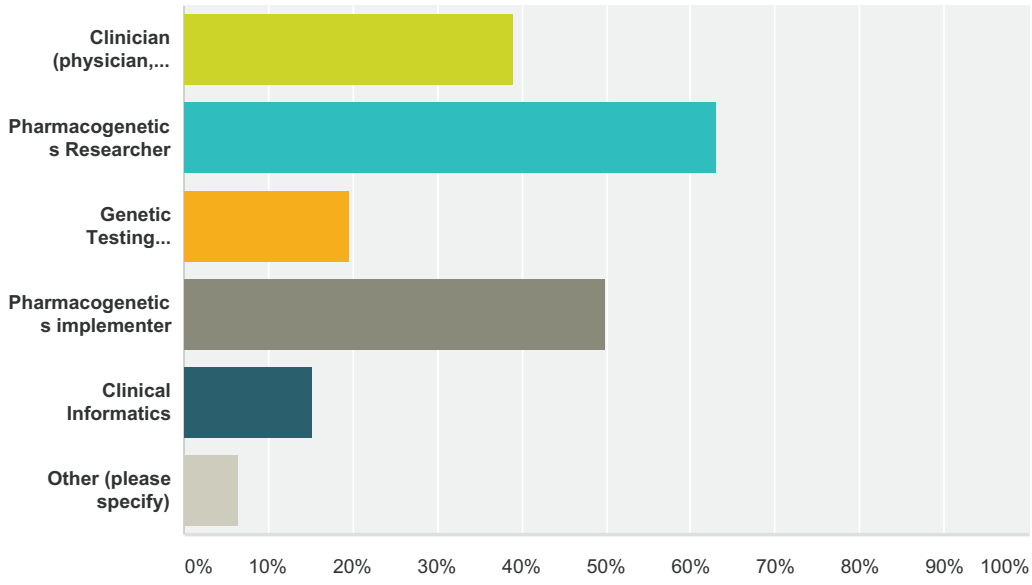
Answer Choices	Responses	
ClinGen's PGx working group	**6.52%**	3
ClinVar	**4.35%**	2
PGRN	**36.96%**	17
IOM's Roundtable on Translating Genomic-Based Research for Health	**4.35%**	2
CPIC	**69.57%**	32
IOM's EHR Action Collaborative	**6.52%**	3
CDC Pgx nomenclature group	**23.91%**	11
GA4GH's Clinical Working Group	**4.35%**	2
ACMG Laboratory Standards and Guidelines Committee	**2.17%**	1

CAP Pharmacogenetics Working Group	**2.17%**	1
Other (if applicable-i.e. pharmacogenomics related):	**23.91%**	11
Total Respondents: 46		

#	Other (if applicable-i.e. pharmacogenomics related):	Date
1	Epic pharmacogenetics working group	7/27/2015 2:57 PM
2	BCH	7/26/2015 6:43 AM
3	none	7/24/2015 3:02 PM
4	ESPT pharmacogenomics committee	7/24/2015 11:19 AM
5	AMP	7/21/2015 9:21 AM
6	IGNITE	7/20/2015 3:08 PM
7	OBO foundry	7/20/2015 1:59 PM
8	x	7/15/2015 1:36 PM
9	Dutch Pharmacogenetics Working Group	7/14/2015 6:51 AM
10	NAT allel nomenclature	7/14/2015 5:33 AM
11	Global Genomic Medicine Collaborative PGx WG	7/14/2015 3:24 AM

Q13 What capacity are you involved in clinical pharmacogenetics (choose all that apply)?

Answered: 46 Skipped: 0

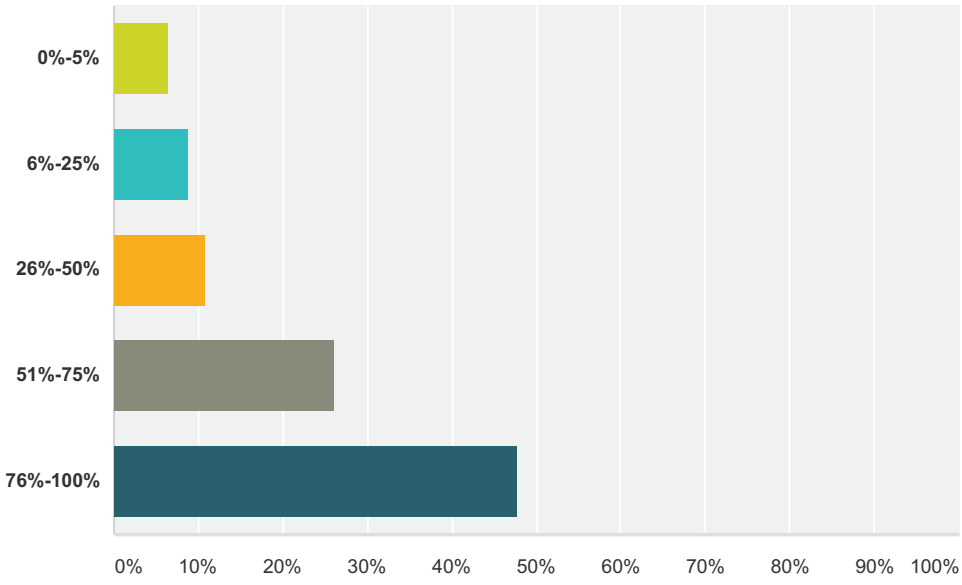


Answer Choices	Responses	
Clinician (physician, pharmacist, etc.)	**39.13%**	18
Pharmacogenetics Researcher	**63.04%**	29
Genetic Testing Laboratory staff	**19.57%**	9
Pharmacogenetics implementer	**50.00%**	23
Clinical Informatics	**15.22%**	7
Other (please specify)	**6.52%**	3
Total Respondents: 46		

#	Other (please specify)	Date
1	Associate Director - Clinical Lab Operations	7/29/2015 12:40 PM
2	Scientific Curator at PharmGKB	7/27/2015 1:36 PM
3	Genetic Counselor	7/24/2015 3:02 PM

Q14 What percentage of time do you devote to pharmacogenetics (i.e. research time, clinic time, etc.)?

Answered: 46 Skipped: 0



Answer Choices	Responses	
0%-5%	**6.52%**	3
6%-25%	**8.70%**	4
26%-50%	**10.87%**	5
51%-75%	**26.09%**	12
76%-100%	**47.83%**	22
Total		**46**