



Background

Many people diagnosed with hepatitis C (HCV) do not proceed along the many steps of the HCV Illness and Care Journey (Fig 1).

Patient and provider HCV knowledge gaps are associated with low patient engagement in HCV care. Gaps may increase with recent changes to HCV care and treatment (e.g., people receiving HCV care from primary care and community-based organizations).

Reducing HCV-related knowledge gaps is a key factor in patient engagement and HCV elimination.

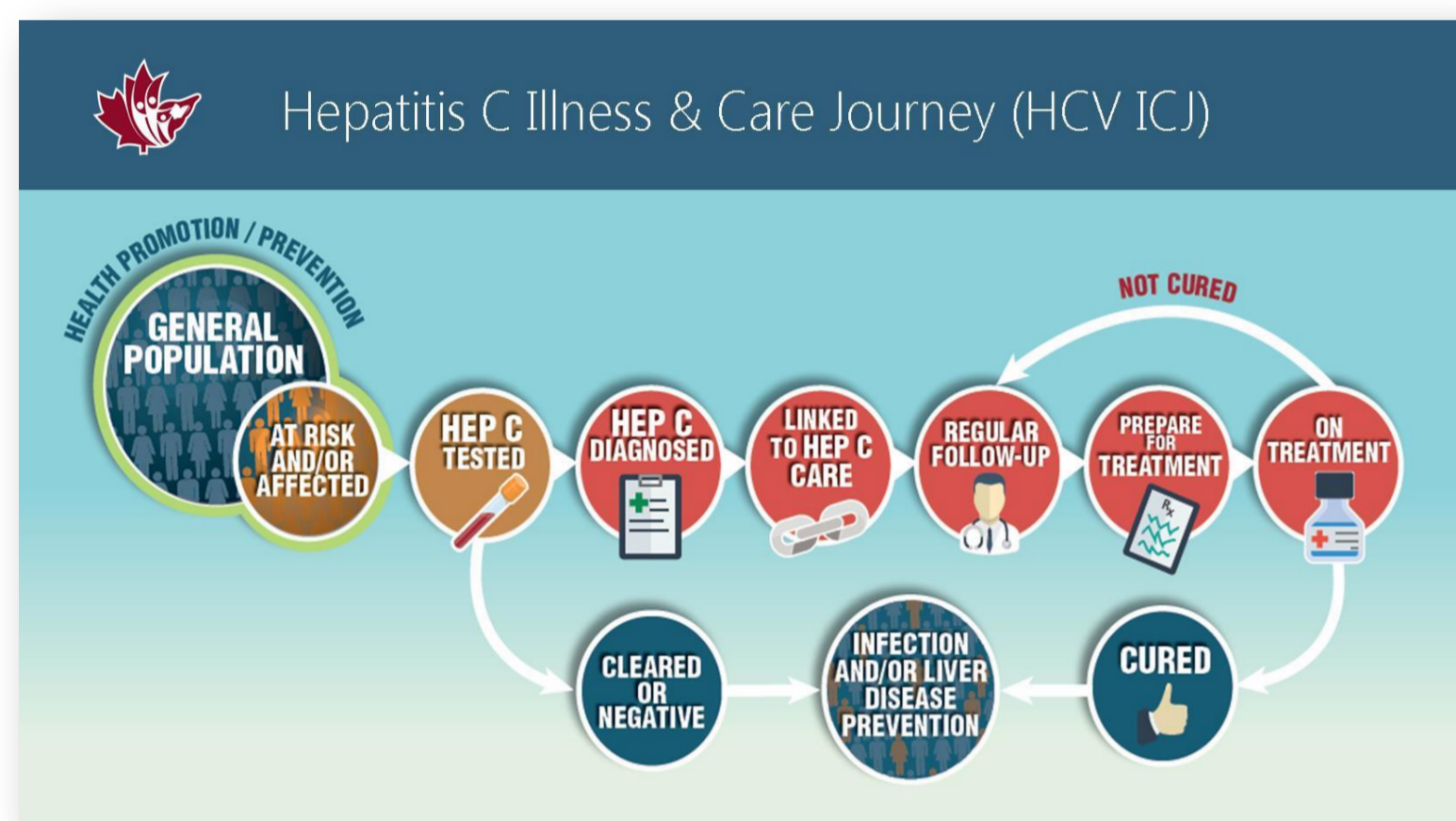


Fig 1: Hepatitis C Illness & Care Journey

Methods

In 2017, we conducted a **needs assessment** survey with **BC health/ social care providers** to assess their demand for HCV education and HCV knowledge (by occupation and testing experience).

Survey questions included:

- 23 HCV topics (Table 1)
- Occupation and HCV testing/treating experience
- An optional five-item HCV knowledge assessment

HCV knowledge assessment items (in abbreviated form):

- Q1 Ratio HCV vs HIV deaths in Canada
- Q2 Transmission risk: male to long-term monogamous female partner
- Q3 Percent likelihood of vertical transmission with HIV+/HCV+ mother
- Q4 Case study: 56-year-old man, no current risk factors, HCV antibody negative
- Q5 Chronological order of what is detectable in blood after a recent HCV infection

Results

Of 301 respondents:

- 86% were nurses from different areas (see Fig 2)
- 13% from **other** professions (e.g., social services, mental health, community-based programs), and
- 1% were physicians.

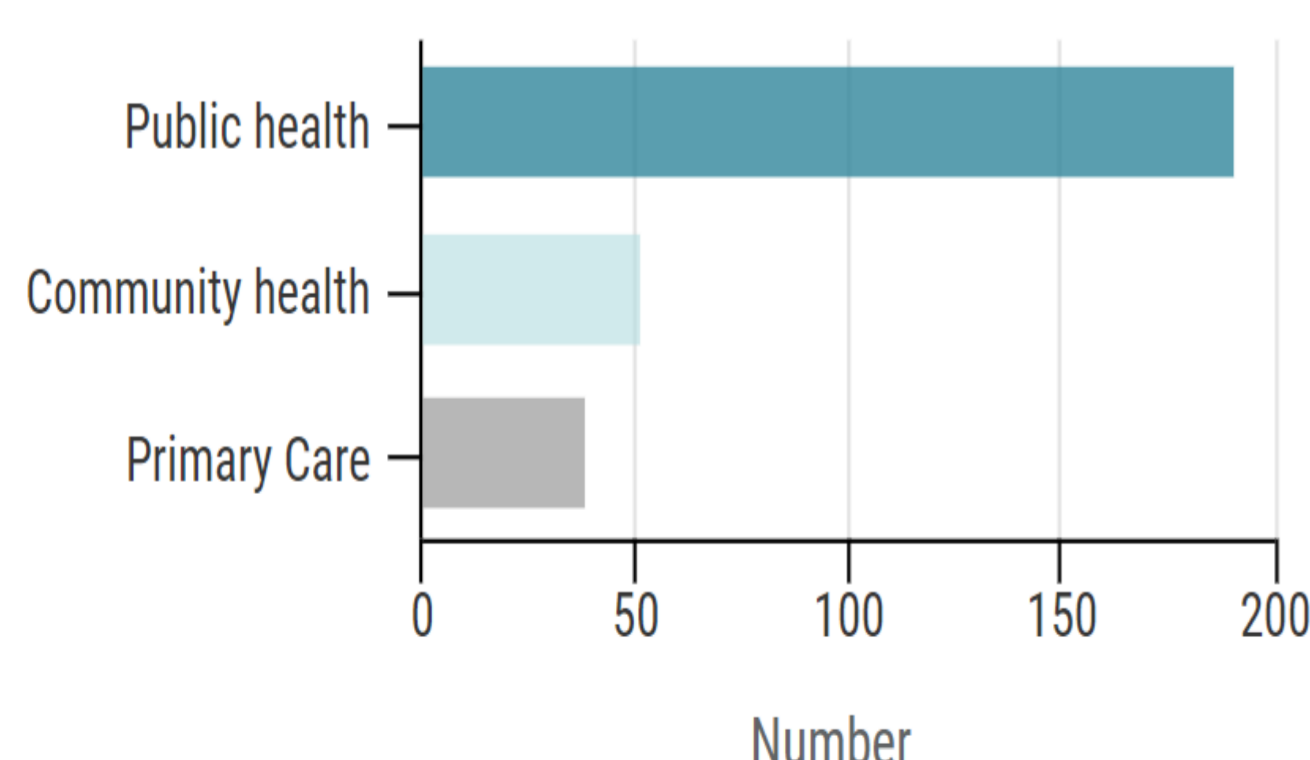


Fig 2: Number of respondents by area of nursing

HCV topic selection

Overall, there was widespread interest in most of the 23 course topics listed (56% to 91%). Only one topic ('Types of hepatitis that are vaccine preventable') was requested by less than 68% of respondents (Table 1).

Results

Top requested topics (n=301) included:

- 81-91% requested HCV pathophysiology education^a
- >86% requested risk factors and testing education^b
- 68-85% requested detailed testing workflow^c
- 71-89% requested education on HCV management, including prevention, treatment and referral process^d

Table 1: Percent requesting each topic by occupation

Topics	Field of Nursing [§]				All n=301
	Primary n=39 %	Public n=168 %	Com. n=42 %	Other n=39 %	
General overview					
Epidemiology of hepatitis A, B, C	77	92	91*	67	86
Hepatitis A, B, C - vaccine preventable?	46	58	55	56	56
Population health inequities - hepatitis	69	82	81	74	78
How the liver functions	85	81	93	64	81
HCV overview					
Natural history of HCV	69	82	83	54	77
Implications of HCV vs HIV viral load ^a	82	85	86	56	81
Impact of HCV on liver functioning ^a	100	95	95	62	91
Impact of HCV on the body ^a	95	94	98	74	91
Who to test ^b					
Transmission/risk factors	85	88	91	77	86
Clinical presentation - acute vs chronic	97	92	95	54	88
HCV screening/testing recomm. & national & provincial guidelines	92	93	95	77	91
HCV testing protocol ^c					
Lab requisition forms (appearance)	80	70	86	33	68
What lab results look like	80	76	83	36	71
Interpretation of lab results	95	93	93	41	85
Spontaneous clearance	87	83	83	33	77
Pre- post-test patient discussion guide	87	85	93	59	83
Follow-up recommendations	90	94	88	56	86
Case management	72	71	76	44	68
Patient management ^d					
Prevention/harm reduction	74	84	95*	72	82
Follow-up for resolved HCV infections	90	85	86	54	82
Patient discussion guide - chronic HCV	95	91	98	56	86
Treatment (e.g., side-effects, cure rates)	97	94	98	54	89
Referral work up for specialist care/	87	71	83	36	71

[§] Nine nurses did not select a field of nursing and were excluded from analyses using field of nursing field. Primary = Primary care; Public = Public health; Com. = Community health care; Other = not a nurse nor a physician. Pearson Chi-Square *P < .05 ('Other' and 'All' were not included in analyses)

Topic request differences by nursing field

- Primary care nurses tended to select fewer topics than public and community health nurses. Public and community health nurses were more likely than primary care nurses to request **epidemiology** and **prevention/harm reduction** (see Table 1).

Topic requests by testing experience

- 94% of those with ≤ 4 years experience requested **Implications of HCV versus HIV viral load** vs. 80% with 0 years and 85% of with 5+ years testing experience (P<.05).

Topic requests by treating experience

- 100% of those with +3 years of treating experience requested **Follow-up recommendation** compared to 94% with 0 years and 75% with ≤ 2 years of treating experience (P = .01).
- 94% of those with ≤ 2 years of treating experience requested **Referral work up** compared to 73% of those with 0 years and 83% of those with 3+ years of treating experience (P = .05).

Results

HCV knowledge assessment

- mean knowledge (5 items) = 34% (n = 227)
- range (5 items) = 9.1% to 68.3%

Occupation (*P<.05; **P<.01). Primary care nurses had significantly higher **overall knowledge** (42%) than community health nurses (28%*) and non-nurses/MDs (22%**). Public health nurses had higher overall knowledge (36%) than non-nurses/MDs (22%*).

Individual knowledge items Q2 and Q4 varied significantly by occupation (see Fig 3).

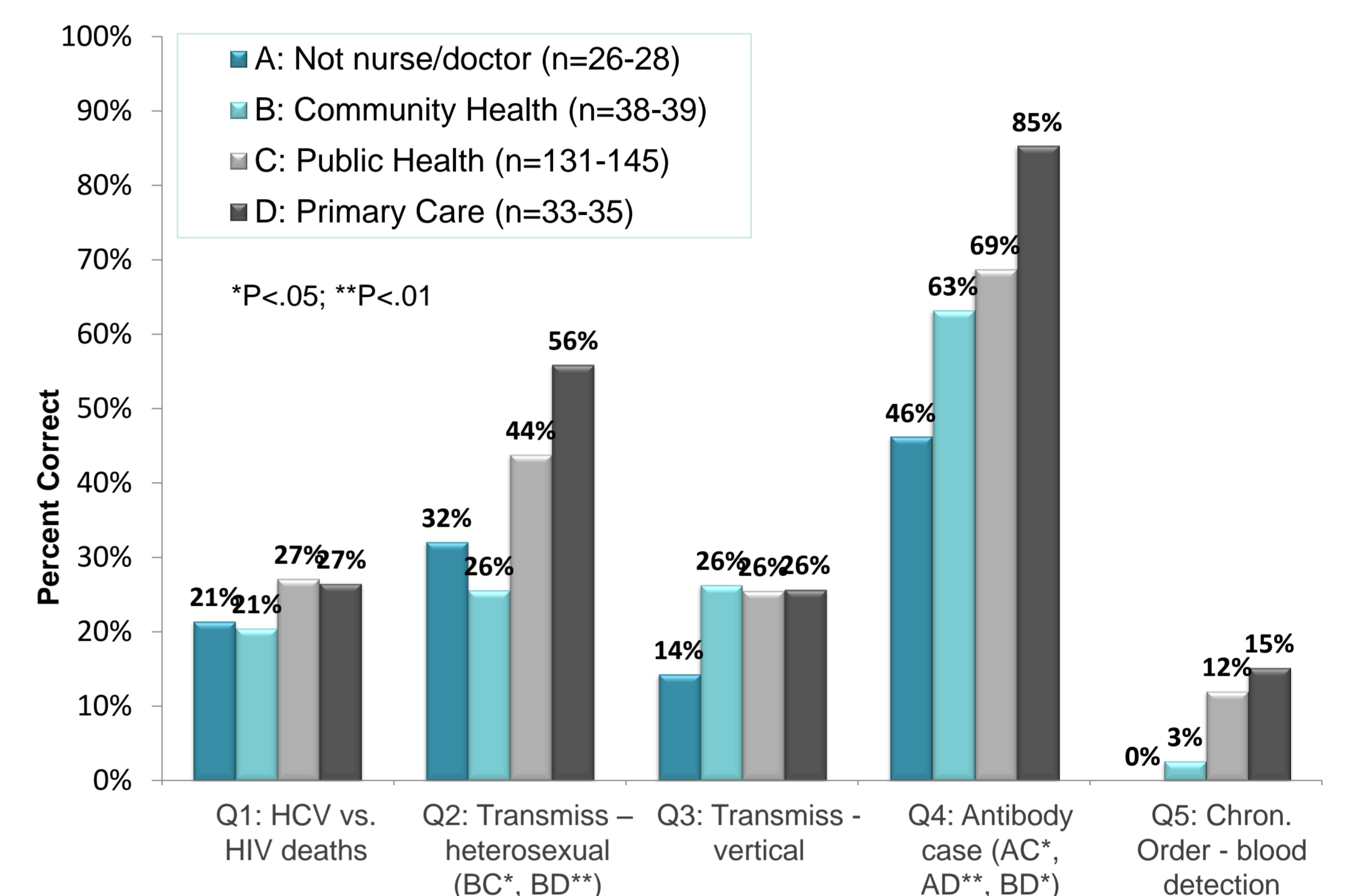


Fig 3: Percentage correct knowledge by occupation

HCV testing experience (*P<.05; **P<.01). Those with 5+ years of testing experience had higher **overall knowledge** (\bar{x} = 49.6%) than those with <4 years (\bar{x} = 37.9%*) and 0 years (\bar{x} = 25.8%***) experience.

Individual knowledge items Q1, Q2 and Q4 varied significantly across experience levels (see Fig 4).

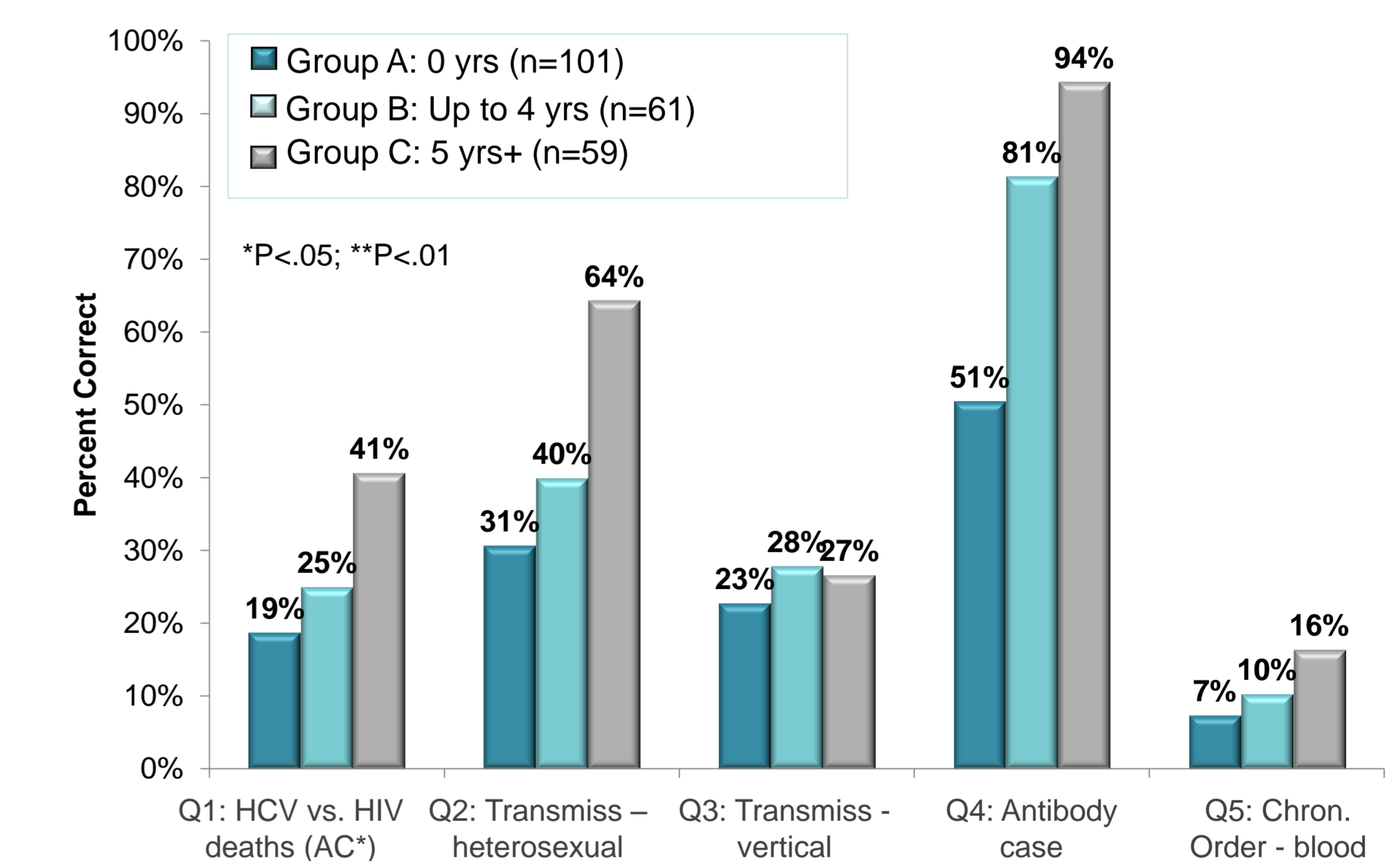


Fig 4: Correct knowledge by HCV testing experience

Conclusion

Results from this needs and knowledge assessment confirm there is a high need and demand for HCV education among care providers. Unaddressed low HCV knowledge levels, even among those experienced in testing and treatment, could negatively affect care engagement and pose a barrier to HCV elimination.

Contact

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