

CAG Quality in Gastroenterology

The 2012 SAGE Wait Time Program:
Survey of Access to GastroEnterology in Canada
Can J Gastroenterol 2013;27:83-9.

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Canadian Association
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L'Association Canadienne
de Gastroentérologie

Introduction

- Wait Time Alliance report cards show wait times in many specialities not improving over past 5 years¹
- Gastroenterology wait time benchmarks established in 2005²
 - Emergency cases seen within 24 h
 - Urgent cases seen within 2 weeks
 - Semi-urgent cases seen within 2 months
 - Routinely scheduled cases seen within 6 months
- 2 previous audits to assess wait times for patients with digestive diseases
 - PAGE 2005³
 - Outcome: wait times in practice often exceeded recommended benchmarks^{2,4}
 - SAGE 2008⁵
 - Outcome: wait times continued to exceed benchmarks
 - Many were significantly longer than in PAGE 2005

1. Wait Time Alliance. Report card on wait times in Canada, June 2012 www.waittimealliance.ca;

2. Paterson et al. *Can J Gastroenterol* 2006;20:411-23; 3. Armstrong et al.

Can J Gastroenterol 2008;22:155-60; 4. Leddin et al. *Can J Gastroenterol*

2008;22:161-7; 5. Leddin et al. *Can J Gastroenterol* 2010;24:20-5

Factors Potentially Affecting Wait Times for Gastroenterology Services¹

- Number of gastroenterologists
- Number of other endoscopists
- Colorectal cancer screening programs
- Resource availability
- Patient expectations
- Changes in technology and care pathways
- Changes in patient load due to population growth or aging

~550 gastroenterologists in Canada = 1.83/100,000 population^{2*}

*2007 estimate

Methods

Aim	<ul style="list-style-type: none">• To survey and report national wait times for specialist gastroenterology care in 2012, and compare these with wait times in 2005 and 2008
Participants	<ul style="list-style-type: none">• Canadian gastroenterologists and internists specializing in gastroenterology
Questionnaire	<ul style="list-style-type: none">• SAGE 2012 survey identical to SAGE 2008 survey*• Participants provided personal demographic data, and anonymous information on 5 consecutive clinic patients (consultations) and 5 consecutive endoscopy outpatients not seen previously for same indication• Patients seen for same-day C&P included and analyzed separately• Survey evaluated wait times relating to 18 selected nonurgent indications• Conducted week of Apr 16–20, 2012 (alternate weeks: Apr 9–13, Apr 23–27)
Data analysis	<ul style="list-style-type: none">• Wait times presented as medians (95% CI)• Statistical comparisons with data from PAGE 2005 and SAGE 2008 performed using Wilcoxon's rank-sum test with adjustment for multiple comparisons

*With the exception of 2 additional physician demographic questions; C&P: consultation & procedure

Defining Wait Time Durations

Wait time to consultation	The time the patient was first referred to the digestive health care provider until the consultation
Wait time to procedure	The time the patient first consulted with the digestive health care provider until the completion of the digestive disease procedures
Total wait time	The time the patient was first referred to the digestive health care provider until completion of the procedure Note: total wait time available only for those patients who had both C&P
Wait time to same-day C&P	The time between the date of the initial referral to the digestive health care provider and the date on which both the C&P were performed Note: similar to previous studies, data for same-day C&P patients analyzed separately

C&P: consultation & procedure

SAGE 2012: Clinician Demographic Survey

-
1. Physician sex: Male Female
-
2. Postal code of the institution where you do the majority of your procedures (endoscopy, liver biopsies, etc):
-
3. Affiliation: Predominantly teaching hospital based
 Predominantly community-based with hospital privileges
 Predominantly community-based without hospital privileges
-
4. Your practice is: Luminal Liver Both luminal & liver
-
5. Your practice is: Adult Pediatric
-
6. Your practice is: Full-time
 Part-time: If part-time, what percentage of time do you work?
-
7. What percentage of your work week is spent in clinical care? Please round to the nearest 10%
-
8. Have you limited new patient referrals because of the length of your wait list? No Yes
-
9. How long have you been in GI practice?* <5 5-10 y 10-20 y 20-30 y 30+ y
-
10. How satisfied are you with your current wait times?* Not at all satisfied Slightly satisfied Somewhat satisfied
 Very satisfied Extremely satisfied
-

*New for SAGE 2012

SAGE 2012: Patient Information Survey

1. Patient's age 0–18 years 19–50 years 51 years or older

3. Primary indication (associated numeric code): (if codes 1–18 do not apply, write in the primary indication)

Esophagus and stomach

- Severe or rapidly progressing dysphagia or odynophagia (1)
- Stable dysphagia that is not severe (2)
- Chronic GERD referred for screening endoscopy (3)
- Poorly-controlled reflux/dyspepsia, NO alarm symptoms (4)
- Dyspepsia WITH alarm symptoms (5)

Small intestines

- Confirmation of celiac disease antibody test (6)

Liver

- Painless obstructive acute jaundice (7)
- Persistent (>6 months) abnormal liver function tests (8)
- Chronic viral hepatitis (9)

Abdomen/large intestine

- Chronic abdominal pain (10)
- Clinical features of significant active IBD (11)
- Chronic diarrhea or chronic constipation (12)
- New-onset change in bowel habit (13)
- Bright red rectal bleeding (14)
- Documented iron deficiency anemia (15)
- Fecal occult blood test positive (16)
- Screening colonoscopy (17)

Miscellaneous

- Cancer likely based on imaging or physical exam (18)
- Other (write in diagnosis) (19)

3. Date patient FIRST referred?

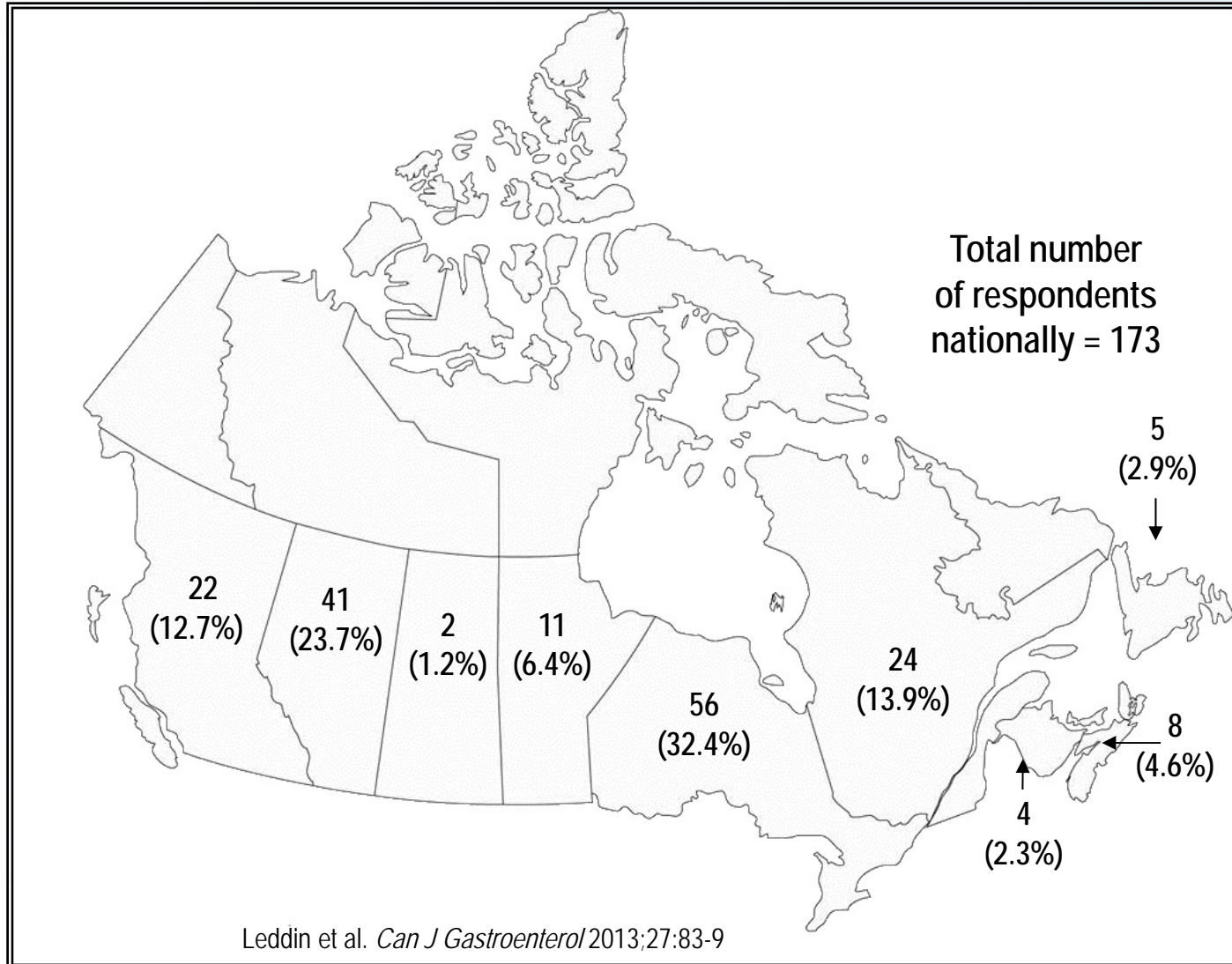
4. Date of CONSULT?

5. Date of PROCEDURE?

Provincial Distributions of Physicians and Patients Included in SAGE 2012

Province/territory	Population Q2 2012, n	Physicians, n (%)	Patients, n (%)	Patients/100,000 population
Canada	34,755,634	173 (100)	1899 (100)	5.5
British Columbia	4,606,451	22 (12.7)	304 (16.0)	6.6
Alberta	3,847,119	41 (23.7)	368 (19.4)	9.6
Saskatchewan	1,072,082	2 (1.2)	47 (2.5)	4.4
Manitoba	1,261,498	11 (6.4)	126 (6.6)	10.0
Ontario	13,472,438	56 (32.4)	654 (34.4)	4.9
Quebec	8,028,434	24 (13.9)	221 (11.6)	2.8
New Brunswick	755,381	4 (2.3)	43 (2.3)	5.7
Nova Scotia	944,968	8 (4.6)	91 (4.8)	9.6
Prince Edward Island	146,152	0 (0)	0 (0)	0.0
Newfoundland/Lab	509,348	5 (2.9)	45 (2.4)	8.8
Nunavut/NWT/Yukon	111,845	0 (0)	0 (0)	0.0

Provincial Distributions of Physicians Included in SAGE 2012



Results: Participant Demographics (N=173)

- Majority male, 80.3%; and in full-time practice, 94.2%
- Affiliation
 - Teaching hospital: 56.1%
 - Community-based with hospital privileges: 38.7%
 - Community-based without hospital privileges: 5.2%
- Practice specialty
 - Both luminal and liver diseases: 53.8%
 - Luminal diseases only: 39.9%
 - Liver diseases only: 6.4%
- >70% work week spent engaged in clinical care: 65.4%
- Limiting new patient referrals: 31.2%
- Experience
 - <5 years: 24%
 - 5–10 years: 16%
 - 11–20 years: 23%
 - 21–30 years: 24%
 - >30 years: 13%
- Satisfaction with current wait times
 - “Not at all”: 42.2%
 - “Extremely”: 4%
 - “Very” satisfied: 6.4%

Results: Overall Wait Times

- Data collected for:
 - 1374 consultations
 - 540 procedures
 - 293 same-day consultations & procedures
- Most cases reported in one of 18 primary indication categories
 - Only 122 classified as “other”

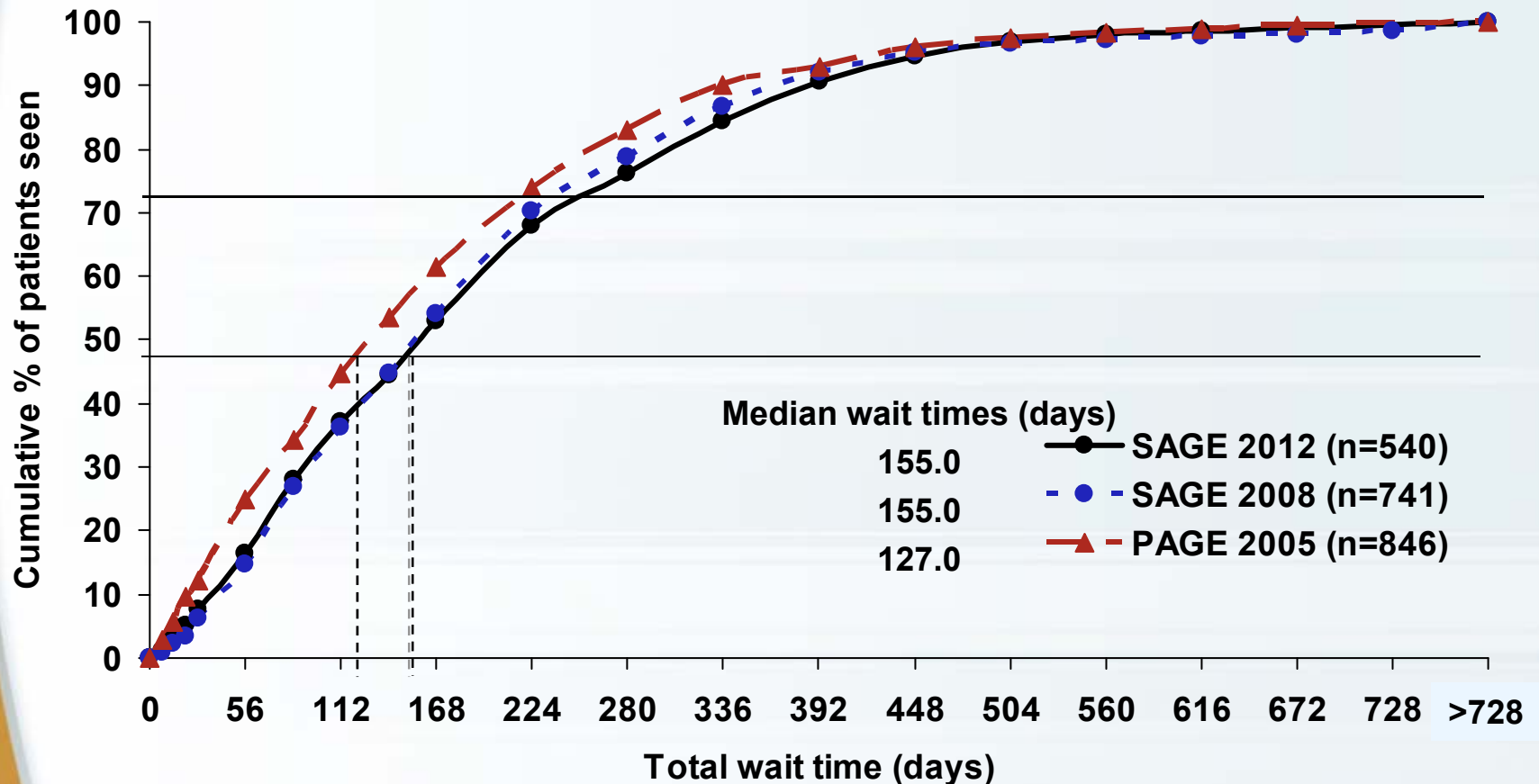
Overall Wait Times in SAGE 2012, SAGE 2008, and PAGE 2005

	Time, days, median (95% CI)			
	To consultation	To procedure	Total wait	Same-day C&P
SAGE 2012	92* (85–100) (n=1374)	55* (50–61) (n=540)	155* (142–174) (n=540)	78*† (64–94) (n=293)
SAGE 2008	92* (87–97) (n=1824)	50* (45–55) (n=741)	155* (143–164) (n=741)	101* (87–116) (n=436)
PAGE 2005	69 (66–71) (n=3965)	37 (31–43) (n=846)	127 (116–140) (n=846)	55 (48–62) (n=852)

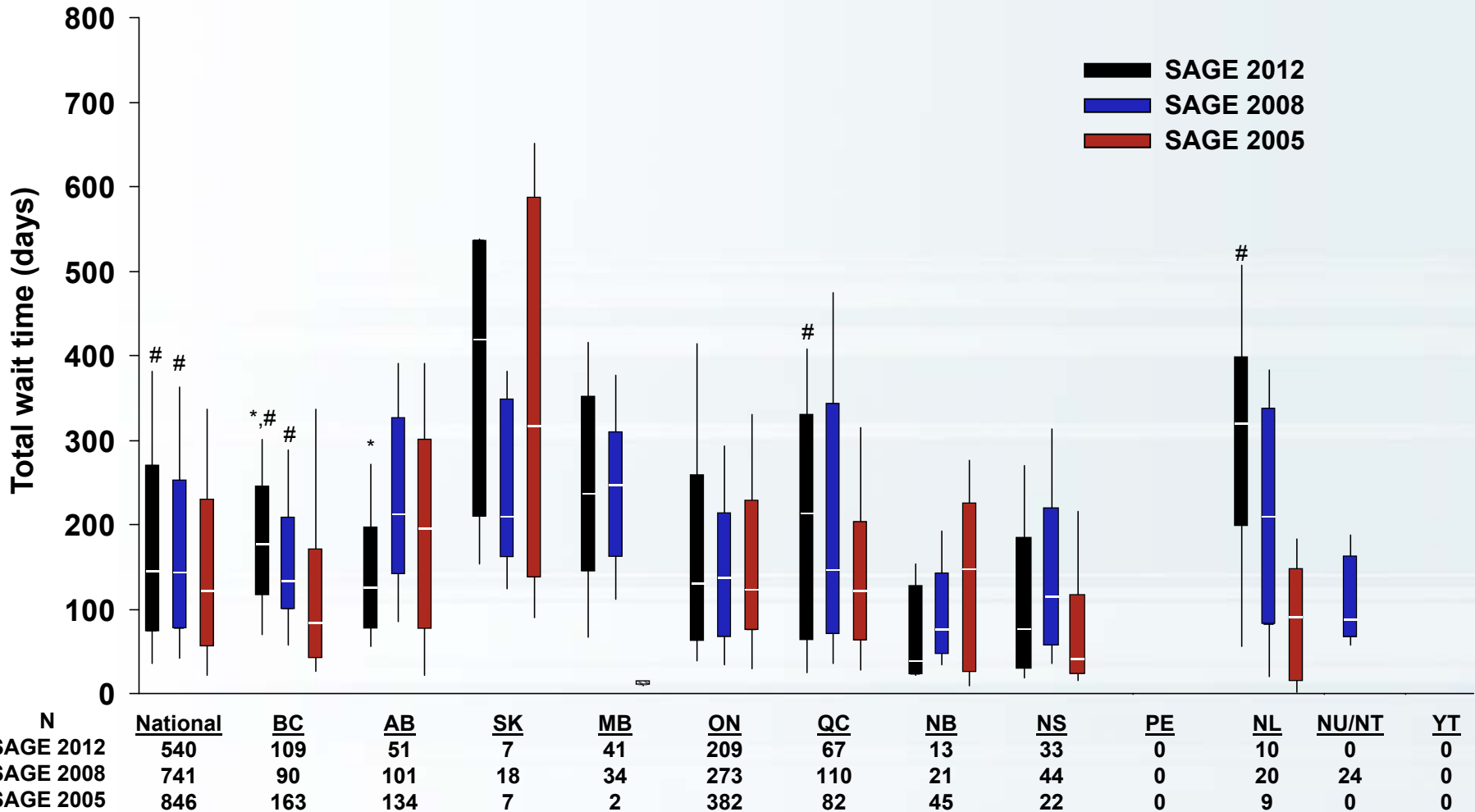
*p<0.05 vs. 2005; †p<0.05 vs. 2008

Comparison of National Median Total Wait Times Across the Three Surveys

2012 and 2008 median total wait times significantly longer than 2005 ($p < 0.05$)



Total Wait Times According to Province



*p<0.05 vs. 2008; #p<0.05 vs. 2005

Proportion of Each Indication in Each of the Two Most Recent SAGE Surveys (2012 & 2008) – I

Indication code	Proportion of patients with each indication, %	
	SAGE 2012 (n=1899)	SAGE 2008 (n=2263)
1: Severe or rapidly progressing dysphagia or odynophagia	48 (2.5)	44 (1.9)
2: Stable dysphagia that is not severe	67 (3.5)	65 (2.9)
3: Chronic GERD referred for screening endoscopy	52 (2.7)	60 (2.7)
4: Poorly-controlled reflux/dyspepsia, NO alarm symptoms	145 (7.6)	215 (9.5)
5: Dyspepsia WITH alarm symptoms	50 (2.6)	67 (3.0)
6: Confirmation of celiac disease antibody test	20 (1.1)	23 (1.0)
7: Painless obstructive acute jaundice	7 (0.4)	10 (0.4)
8: Persistent (>6 months) abnormal liver function tests	61 (3.2)	64 (2.8)
9: Chronic viral hepatitis	40 (2.1)	38 (1.7)
10: Chronic abdominal pain	181 (9.5)	205 (9.1)

Proportion of Each Indication in Each of the Two Most Recent SAGE Surveys (2012 & 2008) – II

Indication code	Proportion of patients with each indication, %	
	SAGE 2012 (n=1899)	SAGE 2008 (n=2263)
11: Clinical features of significant active IBD	87 (4.6)	128 (5.7)
12: Chronic diarrhea or chronic constipation	160 (8.4)	229 (10.1)
13: New-onset change in bowel habit	68 (3.6)	109 (4.8)
14: Bright red rectal bleeding	181 (9.5)	209 (9.2)
15: Documented iron deficiency anemia	102 (5.4)	132 (5.8)
16: Fecal occult blood test positive	65 (3.4)	79 (3.5)
17: Screening colonoscopy	398 (21.0)	438 (19.4)
18: Cancer likely based on imaging or physical exam	45 (2.4)	65 (2.9)
OTHER	122 (6.4)	-
Surveillance for previous colon cancer or polyps (20)	-	56 (2.5)
Weight loss (21)	-	8 (0.4)

Median Wait Times For Each Indication – I

Indication code	Time, days				
	Year	To consultation	To procedure	Total wait	Same-day C&P
1: Severe or rapidly progressing dysphagia or odynophagia	2012	48 (26–62) (n=23)	18 (7–88) (n=10)	49 (19–157) (n=10)	17 (12–21) (n=15)
	2008	34 (25–81) (n=25)	19 (1–67) (n=12)	83 (35–208) (n=12)	27 (15–60) (n=19)
2: Stable dysphagia that is not severe	2012	66 (46–92) (n=47)	29 (13–47) (n=20)	97 (45–184) (n=20)	30* (18–68) (n=8)
	2008	90 (64–113) (n=45)	43 (32–62) (n=23)	135 (93–189) (n=23)	68 (57–112) (n=20)
3: Chronic GERD referred for screening endoscopy	2012	111 (92–173) (n=36)	86 (23–192) (n=14)	210 (120–328) (n=14)	136 (n=1)
	2008	103 (51–163) (n=44)	35 (11–63) (n=180)	125 (83–279) (n=18)	102 (80–188) (n=16)
4: Poorly controlled reflux/dyspepsia, NO alarm symptoms	2012	103 [†] (82–131) (n=120)	72* (50–93) (n=50)	194 (140–302) (n=50)	56 (32–85) (n=18)
	2008	100 [†] (92–126) (n=187)	46 (34–62) (n=75)	163 (128–193) (n=75)	81 (51–102) (n=28)
	2005	73 (60–92) (n=92)	34 (8–118) (n=21)	153 (52–253) (n=21)	56 (14–133) (n=18)
5: Dyspepsia WITH alarm symptoms	2012	40 (20–105) (n=32)	11 (4–55) (n=12)	61 (28–154) (n=12)	68 [†] (27–155) (n=13)
	2008	52 (33–76) (n=52)	11 (3–52) (n=21)	99 (29–150) (n=21)	33 (13–85) (n=15)
	2005	57 (43–70) (n=208)	41 (13–52) (n=54)	106 (89–149) (n=54)	18 (11–29) (n=50)
6: Confirmation of celiac disease antibody test	2012	138* (77–217) (n=12)	72 (23–139) (n=6)	205 (137–318) (n=6)	131 (n=5)
	2008	64 (40–127) (n=16)	36 (6–176) (n=7)	96 (20–309) (n=7)	83 (7–160) (n=7)

*p<0.05 vs. 2008; [†]p<0.05 vs. 2005

Median Wait Times For Each Indication – II

Indication code	Time, days				
	Year	To consultation	To procedure	Total wait	Same-day C&P
7: Painless obstructive acute jaundice	2012	4 (n=4)	4 (n=3)	5 (n=3)	1 (n=2)
	2008	19 (1–225) (n=8)	2 (n=3)	19 (n=3)	22 (n=2)
8: Persistent (>6 months) abnormal liver function tests	2012	122 (67–156) (n=60)	28 (n=4)	84 (n=4)	(n=0)
	2008	112 (81–126) (n=61)	25 (14–462) (n=7)	139 (30–756) (n=7)	65 (n=3)
9: Chronic viral hepatitis	2012	129* (91–183) (n=38)	80 (n=4)	147 (n=4)	(n=0)
	2008	72 (44–122) (n=38)	126 (18–710) (n=8)	169 (76–979) (n=8)	(n=0)
10: Chronic abdominal pain	2012	102 (89–140) (n=156)	67 (43–91) (n=42)	153 (109–219) (n=42)	105 (46–208) (n=10)
	2008	105 (91–119) (n=196)	44 (28–72) (n=54)	152 (104–198) (n=54)	136 (112–343) (n=7)
11: Clinical features of significant active IBD	2012	72 (52–121) (n=73)	44 (27–100) (n=31)	126 (62–199) (n=31)	37 (n=2)
	2008	66 (48–86) (n=116)	35 (25–60) (n=39)	120 (62–141) (n=39)	74 (25–148) (n=12)
	2005	53 (22–99) (n=50)	12 (2–153) (n=10)	158 (35–367) (n=10)	26 (1–64) (n=10)
12: Chronic diarrhea or chronic constipation	2012	126† (103–141) (n=135)	52 (30–64) (n=29)	162 (116–221) (n=29)	150 (41–334) (n=13)
	2008	119† (99–129) (n=211)	57 (42–71) (n=70)	186† (161–222) (n=70)	121 (97–244) (n=18)
	2005	72 (65–84) (n=368)	49 (22–71) (n=76)	130 (92–157) (n=76)	99 (32–206) (n=36)

*p<0.05 vs. 2008; †p<0.05 vs. 2005

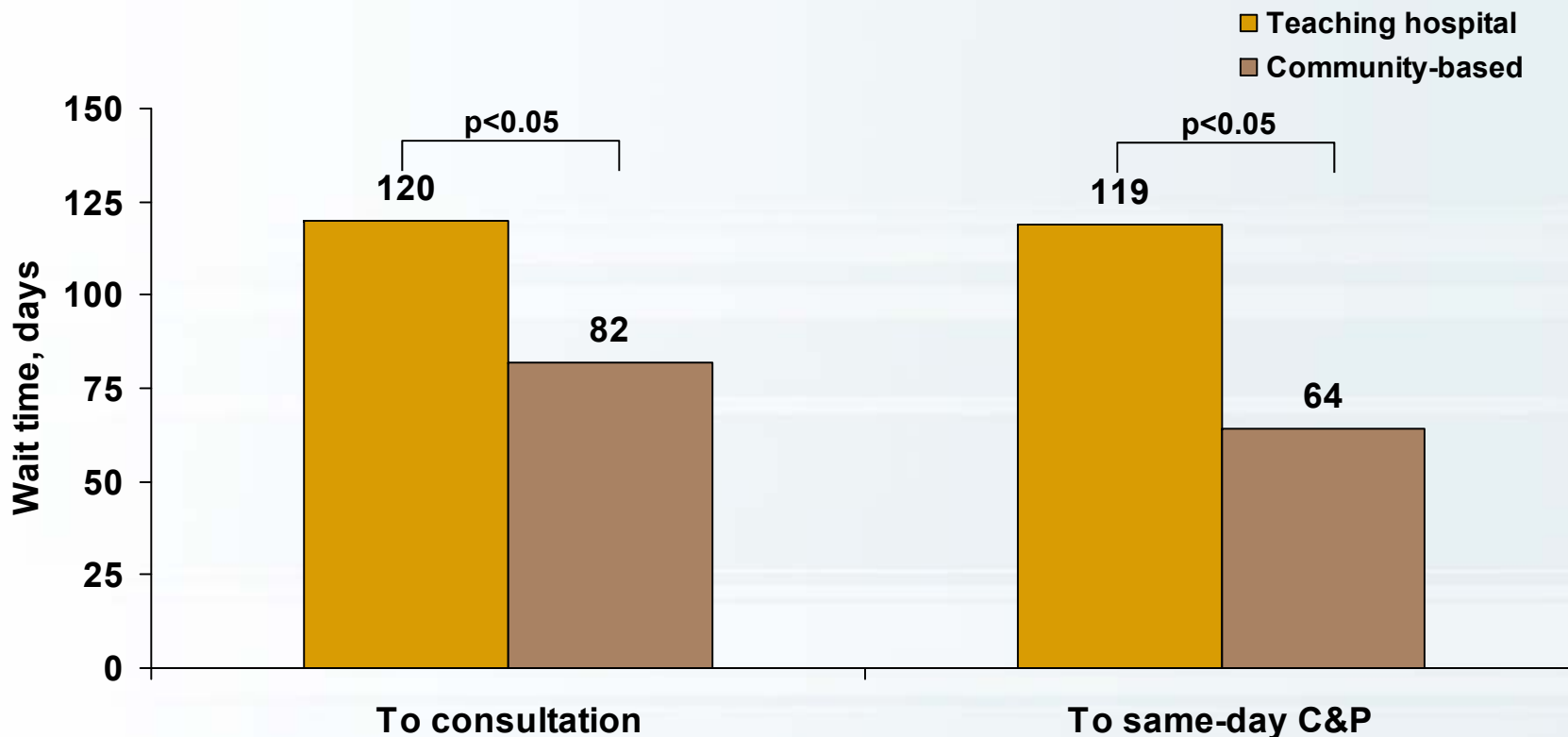
Median Wait Times For Each Indication – III

Indication code	Time, days				
	Year	To consultation	To procedure	Total wait	Same-day C&P
13: New-onset change in bowel habit	2012	84 (48–110) (n=54)	49 (18–68) (n=21)	103 (84–215) (n=21)	35 (24–137) (n=9)
	2008	75 (63–90) (n=95)	38 (19–68) (n=39)	148 (98–210) (n=39)	81 (40–113) (n=14)
14: Bright red rectal bleeding	2012	82 (54–104) (n=127)	44 (32–64) (n=65)	142 (92–181) (n=65)	44* (21–100) (n=33)
	2008	58 (46–75) (n=159)	54 (34–67) (n=81)	136 (107–161) (n=81)	87 (56–134) (n=50)
15: Documented iron deficiency anemia	2012	55 (40–73) (n=77)	42 (29–58) (n=39)	97 (62–160) (n=39)	77 [†] (27–122) (n=16)
	2008	56 [†] (38–71) (n=104)	35 (25–64) (n=50)	90 (70–137) (n=50)	68 [†] (30–123) (n=28)
	2005	42 (29–53) (n=201)	18 (10–43) (n=58)	77 (33–100) (n=58)	24 (14–56) (n=48)
16: Fecal occult blood test positive	2012	56 (34–97) (n=44)	50 (28–62) (n=31)	105 (68–182) (n=31)	32 (16–127) (n=13)
	2008	77 (61–92) (n=65)	41 (30–82) (n=30)	143 (122–219) (n=30)	77 (20–136) (n=14)
	2005	57 (45–78) (n=97)	35 (21–57) (n=23)	97 (70–155) (n=23)	23 (18–55) (n=28)
17: Screening colonoscopy	2012	150* (130–174) (n=216)	94 (70–128) (n=115)	279* (239–321) (n=115)	153* (125–188) (n=112)
	2008	127 (116–142) (n=309)	72 (61–93) (n=160)	201 (179–240) (n=160)	201 (173–250) (n=128)
18: Cancer likely based on imaging or physical exam	2012	24 (8–59) (n=23)	13 (1–42) (n=8)	22 (6–182) (n=8)	15 (2–89) (n=11)
	2008	72 [†] (33–107) (n=37)	36 [†] (12–57) (n=16)	82 [†] (34–170) (n=16)	21 (12–78) (n=28)
	2005	14 (7–23) (n=53)	5 (1–16) (n=10)	9 (3–75) (n=10)	13 (5–26) (n=41)

*p<0.05 vs. 2008; [†]p<0.05 vs. 2005

Results: Wait Times According to Affiliation

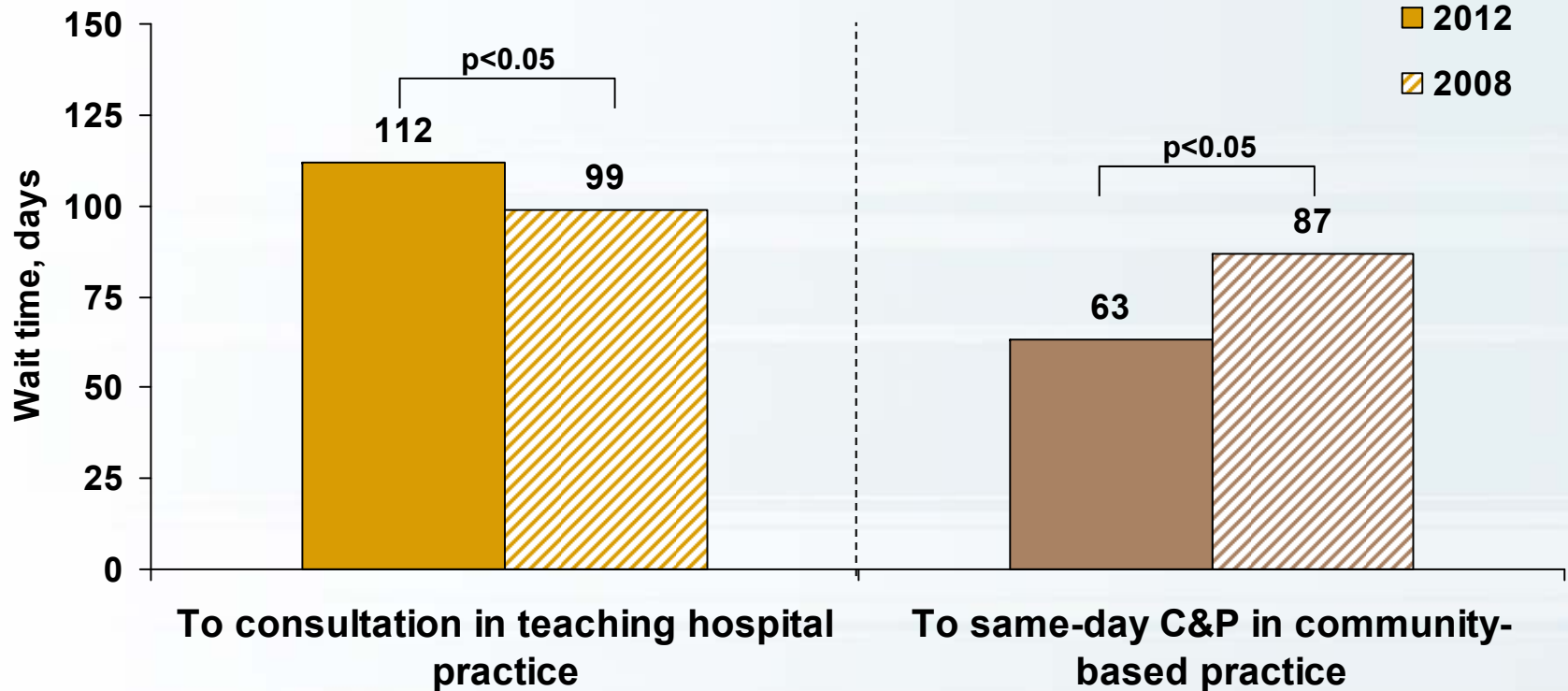
Wait times significantly longer in teaching hospital practices in 2012



Results: Wait Times According to Affiliation

Significant increase in wait times to consultation in teaching hospital practice (2012 vs. 2008)

Significant improvement in wait times to same-day C&P in community-based practice (2012 vs. 2008)



Potential Strategies to Improve Wait Times for Gastroenterology Services

- Adherence to screening and clinical care guidelines
- Use of electronic medical records
- Increased availability of endoscopy resources
 - In hospital or in independent, out-of-hospital endoscopy facilities
- Identification of more patients who could be appropriately referred for same-day C&P

Discussion

- Median total wait times for all indications in 2012 unchanged from 2008
 - However, median time to same-day C&P significantly decreased (by 23 d)
- Median total wait time for screening colonoscopy further increased in 2012 compared to 2008 (201 d to 279 d)
 - However, decrease in wait time for same day C&P (201 d to 153 d)
 - ~1/2 of patients undergo procedure within recommended 6 mo target
 - Reduction possibly due to increase in use of provincial population-based screening programs that provide financial incentives to ensure timeliness of colonoscopies

2012 wait times continued to be significantly longer than 2005, remaining well in excess of 60 days*

*Recommended target wait time for most indications for endoscopy

Summary

- SAGE 2012 provides a snapshot of access to gastroenterology services for Canadians in 2012
- Compared with the 2008 survey, wait times have generally not improved and continue to be longer than those reported in 2005
- In all 3 surveys, wait times for many indications exceed consensus conference-recommended targets