Nearly all Canadians say the work of a radiologist in our healthcare system is valuable or somewhat valuable

Radiologist June Summary

submitted by Nanos to the Canadian Association of Radiologists, July 2018 (Submission 2018-1134)







Canadian Association of Radiologists L'Association canadienne des radiologistes

Summary

Over nine in ten Canadians say the work of radiologist in our healthcare system is valuable or somewhat valuable and they are generally or somewhat familiar with the work radiologists do. A majority of Canadians say they support or somewhat support additional research in the use of AI in radiology within Canada and think that Canada should spend tax dollars to have more current medical imaging equipment.

- Over nine out of ten Canadians say they are generally or somewhat familiar with what radiologists do More than nine out of ten Canadians say they are generally familiar (53%) or somewhat familiar (40%) with the work radiologists do. Less than one in ten say they are somewhat unfamiliar (five per cent) or unfamiliar (two per cent) with their work. One per cent are unsure.
- Nearly all Canadians say the work of radiologists is valuable or somewhat valuable Ninety-seven per cent of Canadians say the work of a radiologist in our healthcare system is valuable (81%) or somewhat valuable (16%), while one per cent say it is somewhat not valuable. Two per cent are unsure.
- A majority of Canadians have received a health care treatment that included a
 radiologist or have a family member who has received a healthcare treatment that
 included a radiologist— Close to three in four Canadians say they have received a
 healthcare treatment that included a radiologist (73%) and just over half of Canadians
 have a family member who has received one (51%). Over three in ten Canadians have a
 close friend of theirs who has received a healthcare treatment that included a
 Radiologist.



Summary

- Among those who have received a healthcare treatment that included a radiologist or have a family member or a close friend who has, the median waiting period between the request for a medical imaging test or procedure and the time it was completed was 2 weeks When asked how long the waiting period between when their physician requested a medical imaging test or procedure and the time they completed the test or procedure, Canadians who reported having received such healthcare or having a family member or close friend who received such health care stated the mean waiting period was 6.9 weeks and the median was 2 weeks.
- Over two in three Canadians believe Canada should spend tax dollars to have more current medical imaging equipment When asked which statement best reflects their personal opinion, seven in ten Canadians say that Canada should spend tax dollars to have more current medical imaging equipment (70%), while less than two in ten say that it is acceptable to have older equipment in order to save money (14%). Six per cent say neither views reflect their personal opinion and ten per cent are unsure.
- Over eight in ten Canadians support or somewhat support additional research in the use of AI in radiology within Canada— More than eight in ten Canadians say they would support (46%) or somewhat support (37%) additional research in the use of AI in radiology within Canada. Just over one in ten say they would oppose (four per cent) or somewhat oppose (seven per cent) this. Seven per cent are unsure.

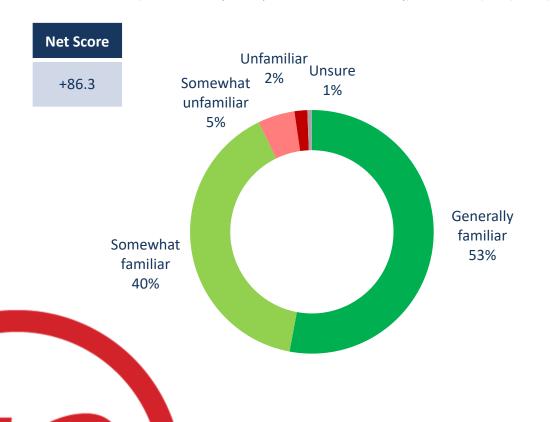
These observations are based on a hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between June 26^{th} and 28^{th} , 2018 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,000 Canadians is ± 3.1 percentage points, 19 times out of 20.

This study was commissioned by the Canadian Association of Radiologists and the research was conducted by Nanos Research.



Familiarity with what radiologists do

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, June 26th to 28th, 2018, n=1000, accurate 3.1 percentage points plus or minus, 19 times out of 20.



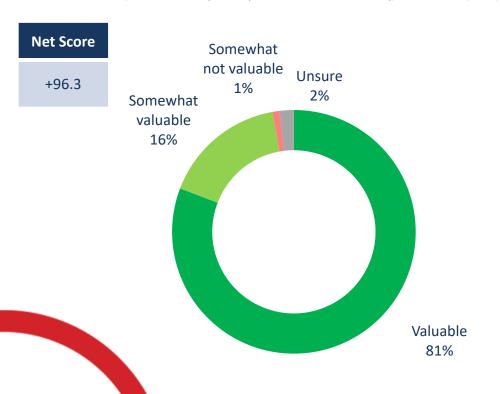
Subgroups	Generally familiar/ Somewhat familiar
Atlantic (n=100)	95.5%
Quebec (n=250)	85.5%
Ontario (n=300)	95.9%
Prairies (n=200)	92.0%
British Columbia (n=150)	98.4%
Male (n=520)	91.7%
Female (n=480)	93.9%
18 to 34 (n=178)	88.5%
35 to 54 (n=329)	95.0%
55 plus (n=493)	93.9%

*Note: Charts may not add up to 100 due to rounding

QUESTION – Would you say that you are generally familiar, somewhat familiar, somewhat unfamiliar or unfamiliar with what Radiologists do?

Value of radiologist work

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, June 26th to 28th, 2018, n=1000, accurate 3.1 percentage points plus or minus, 19 times out of 20.



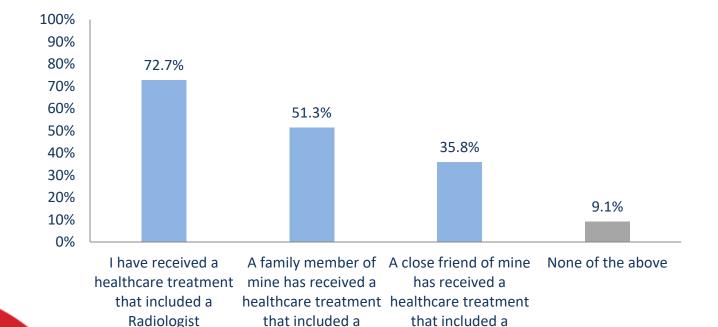
Subgroups	Valuable/ somewhat valuable
Atlantic (n=100)	97.3%
Quebec (n=250)	96.8%
Ontario (n=300)	96.9%
Prairies (n=200)	96.0%
British Columbia (n=150)	99.7%
Male (n=520)	95.7%
Female (n=480)	98.6%
18 to 34 (n=178)	95.5%
35 to 54 (n=329)	98.0%
55 plus (n=493)	97.6%

*Note: Charts may not add up to 100 due to rounding

QUESTION – Would you say the work of a Radiologist in our healthcare system is valuable, somewhat valuable, somewhat not valuable or not valuable?

Receiving healthcare treatment from a radiologist

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, June 26th, 2018, n=1000, accurate 3.1 percentage points plus or minus, 19 times out of 20.



Radiologist

QUESTION – Which of the following statements apply to you [select as many as apply]: [RANDOMIZE] (Based on multiple responses)

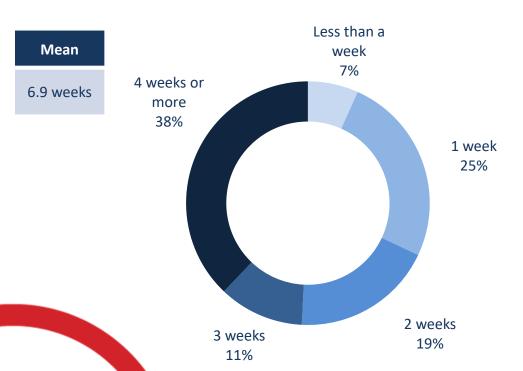
Radiologist

Confidential

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Wait time for procedure

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, June 26th to 28th, 2018, n=873, accurate 3.1 percentage points plus or minus, 19 times out of 20.



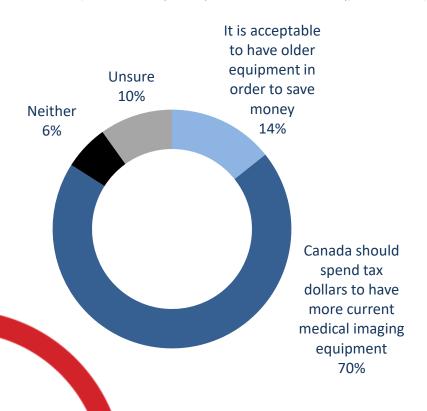
Subgroups	Mean
Atlantic (n=89)	5.9
Quebec (n=197)	9.5
Ontario (n=271)	4.8
Prairies (n=177)	6.5
British Columbia (n=139)	8.5
Male (n=452)	6.1
Female (n=421)	7.7
18 to 34 (n=139)	9.3
35 to 54 (n=288)	5.4
55 plus (n=446)	6.8

*Note: Charts may not add up to 100 due to rounding

QUESTION – [If answered one of the three first options in previous question] How long was the waiting period between when your physician requested a medical imaging test or procedure and the time you completed the test or procedure (when a radiologist interpreted your X-ray, mammogram, CT scan, MRI scan, US scan, PET scan, or performed your interventional procedure)? _____ weeks

Replacing older equipment

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, June 26th to 28th, 2018, n=1000, accurate 3.1 percentage points plus or minus, 19 times out of 20.



Subgroups	Canada should spend tax dollars to have more current medical imaging equipment
Atlantic (n=100)	72.8%
Quebec (n=250)	72.1%
Ontario (n=300)	69.7%
Prairies (n=200)	68.9%
British Columbia (n=150)	65.2%
Male (n=520)	64.8%
Female (n=480)	74.6%
18 to 34 (n=178)	65.1%
35 to 54 (n=329)	68.2%
55 plus (n=493)	74.4%

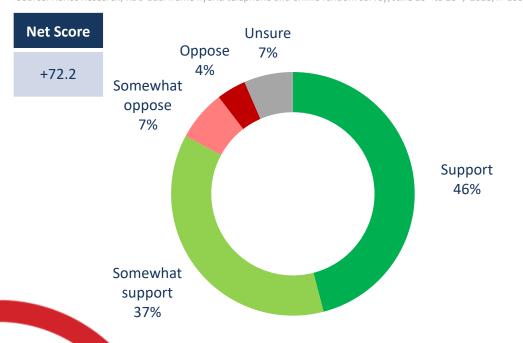
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*Note: Charts may not add up to 100 due to rounding

QUESTION – Between 10 to 20 percent of medical imaging equipment is more than 10 years old. [ROTATE] Some people think it is acceptable to have older equipment in order to save money. Other people think that technology has improved in the past 10 years and Canada should spend tax dollars to have more current medical imaging equipment. Which of these two views, if any, best reflects your personal opinions? A or B?

Support for research in the use of AI in radiology within Canada

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, June 26th to 28th, 2018, n=1000, accurate 3.1 percentage points plus or minus, 19 times out of 20.



Subgroups	Support/ somewhat support
Atlantic (n=100)	82.5%
Quebec (n=250)	86.1%
Ontario (n=300)	82.5%
Prairies (n=200)	80.8%
British Columbia (n=150)	81.2%
Male (n=520)	85.9%
Female (n=480)	79.9%
18 to 34 (n=178)	81.6%
35 to 54 (n=329)	79.6%
55 plus (n=493)	86.7%

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*Note: Charts may not add up to 100 due to rounding

QUESTION – Early findings indicate that Artificial Intelligence (AI) which uses computer algorithms to solve problems can support the practice of radiology by improving medical outcomes through more effective screening of disease and increasing access for patients by extending the Radiologists' services. Would you support, somewhat support, somewhat oppose or oppose additional research in the use of AI in radiology within Canada?



Methodology

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between June 26th and 28th, 2018 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The results were statistically checked and weighted by age and gender using the latest Census information and the sample is geographically stratified to be representative of Canada.

Individuals were randomly called using random digit dialling with a maximum of five call backs.

The margin of error for a random survey of 1,000 Canadians is ± 3.1 percentage points, 19 times out of 20.

The research was commissioned by the Canadian association of Radiologists and was conducted by Nanos Research.

Note: Charts may not add up to 100 due to rounding.



Technical Note

Element	Description	Element	Description
Organization who commissioned the research	Canadian Association of Radiologists	Weighting of Data	The results were weighted by age and gender using the latest Census information (2016) and the sample is geographically stratified to ensure a distribution across all regions of Canada. See tables for full weighting disclosure
Final Sample Size	1000 Randomly selected individuals.		Screening ensured potential respondents did not work in the
Margin of Error	±3.1 percentage points, 19 times out of 20.	Screening	market research industry, in the advertising industry, in the media or a political party prior to administering the survey to ensure the integrity of the data.
Mode of Survey	RDD dual frame (land- and cell-lines) hybrid telephone and online omnibus survey	Excluded Demographics	Individuals younger than 18 years old; individuals without land or cell lines could not participate.
Sampling Method Base	The sample included both land- and cell-lines RDD (Random Digit Dialed) across Canada.	Stratification	By age and gender using the latest Census information (2016) and the sample is geographically stratified to be representative of Canada. Smaller areas such as Atlantic Canada were marginally oversampled to allow for a minimum regional sample.
Demographics (Captured)	Atlantic Canada, Quebec, Ontario, Prairies, British Columbia; Men and Women; 18 years and older. Six digit postal code was used to validate geography.	Estimated Response Rate	10 percent, consistent with industry norms.
Fieldwork/Validation	Live interviews with live supervision to validate work as per the MRIA Code of Conduct	Question Order	Question order in the preceding report reflects the order in which they appeared in the original questionnaire.
Number of Calls	Maximum of five call backs.	Question Content	This was module four of an omnibus survey. Prior modules asked about US-Canada trade relations, Indigenous People and Federal leader management of relation with US president.
Time of Calls	Individuals were called between 12-5:30 pm and 6:30-9:30pm local time for the respondent.	Question Wording	The questions in the preceding report are written exactly as they
Field Dates	June 26 th to 28 th , 2018.		were asked to individuals.
Language of Survey	The survey was conducted in both English and French.	Survey Company	Nanos Research Contact Nanos Research for more information or with any concerns or questions.
Standards	This report meets the standards set forth by the MRIA which can be found here: https://mria-arim.ca/polling	Contact	http://www.nanos.co Telephone:(613) 234-4666 ext. Email: info@nanosresearch.com.

About Nanos

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				Region								Age		
			Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus	
Question: Would you say that you are generally familiar, somewhat familiar, somewhat unfamiliar or unfamiliar with what Radiologists do?	Total	Unwgt N	1000	100	250	300	200	150	520	480	178	329	493	
		Wgt N	1000	100	250	300	200	150	491	509	271	340	389	
	Generally familiar	%	53.0	54.5	44.2	60.5	47.2	59.2	49.4	56.4	41.5	52.6	61.2	
	Somewhat familiar	%	39.9	41.0	41.3	35.4	44.8	39.2	42.3	37.5	47.0	42.4	32.7	
	Somewhat unfamiliar	%	4.9	3.5	9.5	3.1	6.2	0.0	5.9	3.9	9.7	3.4	2.9	
	Unfamiliar	%	1.7	1.0	3.8	1.0	1.1	0.8	1.7	1.6	1.0	1.6	2.2	
	Unsure	%	0.6	0.0	1.2	0.0	0.7	0.9	0.6	0.5	0.9	0.0	0.9	

					Reg	gion			Gender			Age	
			Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus
Question: Would you say the work of a Radiologist in our	Total	Unwgt N	1000	100	250	300	200	150	520	480	178	329	493
healthcare system is valuable, somewhat valuable,		Wgt N	1000	100	250	300	200	150	491	509	271	340	389
somewhat not valuable or not valuable?	Valuable	%	80.8	86.7	66.6	87.7	79.2	89.0	76.7	84.8	76.5	80.1	84.4
valuable.	Somewhat valuable	%	16.4	10.6	30.2	9.2	16.8	10.7	19.0	13.8	19.0	17.9	13.2
	Somewhat not valuable	%	0.9	0.7	0.8	1.2	1.3	0.0	1.5	0.3	1.7	0.8	0.4
	Unsure	%	1.9	2.0	2.4	1.9	2.6	0.4	2.8	1.1	2.8	1.1	2.0



			-		Reg	gion			Ge	nder		Age	
			Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus
Question: Which of the following statements apply to	Total	Unwgt N	1000	100	250	300	200	150	520	480	178	329	493
you [select as many as apply]: [RANDOMIZE]		Wgt N	1000	100	250	300	200	150	491	509	271	340	389
	I have received a healthcare treatment that included a Radiologist	%	72.7	68.0	61.8	78.1	75.6	79.4	68.4	76.9	65.6	71.4	78.8
	A family member of mine has received a healthcare treatment that included a Radiologist	%	51.3	49.0	42.6	52.5	59.3	54.3	50.5	52.1	59.4	48.7	47.9
	A close friend of mine has received a healthcare treatment that included a Radiologist	%	35.8	37.2	27.4	35.4	41.1	42.4	31.6	39.7	34.4	34.8	37.5
	None of the above	%	9.1	10.8	16.9	5.8	5.5	6.4	10.1	8.2	12.9	8.6	7.0



					Reg	gion			Ge	nder		Age	
			Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus
[If answered one of the three first options in previous	Total	Unwgt N	873	89	197	271	177	139	452	421	139	288	446
question] Question: How long		Wgt N	867	87	197	267	178	139	420	447	220	298	350
was the waiting period between when your physician requested a medical imaging test or procedure and the time you completed the test or procedure (when a radiologist interpreted your X-ray, mammogram, CT scan, MRI scan, US scan, PET scan, or performed your interventional procedure)? weeks		Mean	6.92	5.94	9.50	4.81	6.49	8.46	6.09	7.69	9.26	5.36	6.77
		Median	2.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00
	.0	%	5.9	1.8	4.1	7.6	6.0	7.4	5.9	5.8	10.6	4.3	4.2
	.2	%	0.1	0.0	0.0	0.0	0.3	0.4	0.1	0.1	0.0	0.0	0.3
	.5	%	0.7	3.1	0.0	1.0	0.6	0.0	1.3	0.2	0.9	1.0	0.5
	1.0	%	25.2	26.5	27.7	21.7	27.0	25.3	26.0	24.5	19.1	28.0	26.6
	1.5	%	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.2
	2.0	%	18.8	14.7	20.6	19.7	20.7	14.5	20.3	17.4	19.2	18.8	18.6
	3.0	%	11.3	14.7	14.3	12.3	6.7	8.6	11.2	11.3	6.9	12.0	13.4
	4.0	%	10.0	16.7	4.1	11.2	11.5	9.9	7.6	12.2	11.1	8.8	10.2
	5.0	%	2.3	3.2	3.5	1.9	2.2	1.1	2.1	2.6	4.0	1.3	2.2
	6.0	%	4.3	2.1	3.1	5.7	3.3	6.1	4.1	4.6	2.4	6.5	3.7
	7.0	%	0.6	0.0	1.1	0.7	0.0	0.9	0.5	0.7	0.4	1.1	0.3
	8.0	%	3.8	3.6	2.6	5.2	4.5	2.0	4.4	3.2	3.5	4.5	3.3
	9.0	%	0.7	0.0	1.4	0.7	1.0	0.0	1.1	0.4	0.4	1.0	0.7
	10.0	%	1.6	0.8	2.5	0.4	1.2	3.3	1.7	1.4	2.6	1.7	0.7
	12.0	%	3.8	4.8	2.4	4.9	1.4	6.2	3.6	3.9	4.5	3.4	3.7
	13.0	%	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.3
	14.0	%	0.4	0.0	0.5	0.3	0.4	0.4	0.5	0.2	0.4	0.0	0.6

Nanos conducted an RDD dual frame (land- and cell- lines) hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between June 26th and 28th, 2018. The margin of error for a random survey of 1,000 Canadians is ±3.1 percentage points, 19 times out of 20.



	_			Reg	gion			Ger	nder		Age	
		Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus
15.0	%	0.5	0.0	2.2	0.0	0.0	0.0	0.0	1.0	0.5	0.8	0.3
16.0	%	0.8	0.0	0.0	1.3	0.6	1.9	1.0	0.7	0.8	0.9	0.8
18.0	%	0.8	0.0	0.0	0.3	2.9	0.5	0.2	1.3	2.3	0.0	0.4
20.0	%	1.5	1.0	1.8	1.4	2.2	0.4	1.8	1.2	1.7	1.4	1.4
21.0	%	0.3	0.0	0.0	0.0	1.3	0.0	0.1	0.4	0.7	0.0	0.2
22.0	%	0.1	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
24.0	%	1.5	0.0	1.1	1.9	2.7	0.9	1.7	1.4	1.2	1.0	2.2
25.0	%	0.1	0.0	0.0	0.0	0.0	0.9	0.0	0.3	0.0	0.4	0.0
26.0	%	0.4	1.0	0.0	0.3	0.0	1.4	0.6	0.2	0.9	0.0	0.5
30.0	%	1.2	1.1	2.5	0.0	0.8	2.2	1.4	0.9	0.9	1.0	1.5
32.0	%	0.1	0.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0
33.0	%	0.1	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.2
36.0	%	0.1	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.0	0.3	0.0
38.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0
40.0	%	0.2	0.0	0.0	0.3	0.5	0.0	0.2	0.2	0.0	0.0	0.4
42.0	%	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3
48.0	%	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.2	0.0	0.0	0.2
50.0	%	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3
52.0	%	0.9	1.8	0.0	1.0	0.8	1.7	0.7	1.1	1.7	0.8	0.5
60.0	%	0.4	0.0	0.0	0.0	0.0	2.2	0.4	0.3	0.9	0.4	0.0
72.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0



		-	Region								Age	
		Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus
80.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3
90.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.0
100.0	%	0.2	0.0	0.0	0.0	0.0	0.9	0.1	0.2	0.0	0.0	0.4
101.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.0
120.0	%	0.1	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
123.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0
300.0	%	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.2
365.0	%	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0

			Region						Gender			Age		
			Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus	
Question: Between 10 to 20 percent of medical imaging equipment is more than 10 years old. [ROTATE] Some people think it is acceptable to have older equipment in order to save money. Other people think that technology has improved	Total	Unwgt N	1000	100	250	300	200	150	520	480	178	329	493	
		Wgt N	1000	100	250	300	200	150	491	509	271	340	389	
	It is acceptable to have older equipment in order to save money	%	14.3	13.1	11.8	14.3	15.6	17.4	17.8	10.8	18.5	15.5	10.2	
in the past 10 years and Canada should spend tax dollars to have more current medical imaging equipment.	Canada should spend tax dollars to have more current medical imaging equipment	%	69.8	72.8	72.1	69.7	68.9	65.2	64.8	74.6	65.1	68.2	74.4	
Which of these two views, if any, best reflects your personal opinions?	Neither	%	6.1	4.4	5.7	6.3	5.6	7.8	6.8	5.3	6.2	5.6	6.4	
	Unsure	%	9.9	9.7	10.4	9.8	9.9	9.5	10.6	9.3	10.2	10.8	9.0	



			Region							nder	Age		
			Canada 2018-06	Atlantic	Quebec	Ontario	Prairies	British Columbia	Male	Female	18 to 34	35 to 54	55 plus
Question: Early findings indicate that Artificial	Total	Unwgt N	1000	100	250	300	200	150	520	480	178	329	493
Intelligence (AI) which uses computer algorithms to solve		Wgt N	1000	100	250	300	200	150	491	509	271	340	389
problems can support the practice of radiology by improving medical outcomes	Support	%	45.9	47.9	48.6	43.8	42.7	48.8	51.3	40.7	48.5	38.7	50.5
through more effective screening of disease and	Somewhat support	%	36.9	34.6	37.5	38.7	38.1	32.4	34.6	39.2	33.1	40.9	36.2
increasing access for patients by extending the Radiologists'	Somewhat oppose	%	6.7	6.6	4.2	6.7	8.4	8.6	5.7	7.6	7.3	8.8	4.5
services. Would you support, somewhat support, somewhat	Oppose	%	3.9	2.1	3.6	4.6	4.7	3.5	3.6	4.3	7.3	3.8	1.7
oppose or oppose additional research in the use of AI in radiology within Canada?	Unsure	%	6.5	8.7	6.1	6.2	6.2	6.8	4.8	8.2	3.9	7.9	7.1