



# Surgical Procedure Volumes – Impact of COVID-19 in 2021

Survey by SUAZIO

# SUAZIO - MEET THE TEAM



SUAZIO is a research and consultancy agency that provides far-reaching customer insights for the marketing of products and services in MedTech and IVD markets.

Headquartered in Antwerp, Belgium  
Branches in Paris, Philadelphia, Milwaukee & Pittsburgh



## By the Numbers

20 Years in business  
50 Employees  
125 Clients  
1250+ Projects  
25,000 interviews/year with HCPs, Patients, stakeholders



## Quality & Flexibility

Senior Consultants  
In-house call center  
35+ native languages capabilities  
Trained & qualified interviewers

## Research Guideline Compliance

Insights Association guidelines (formerly CASRO & MRA)  
The PBIRG guidelines on Anti-Trust activities  
Member of ePhMRA and ESOMAR



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**Slide**

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## Objective

Understand the current impact of COVID-19 and future outlook for surgical procedure volumes in 2021

- By region (US and EU)
- By segment Cardiac vs Non-Cardiac

## Methodology



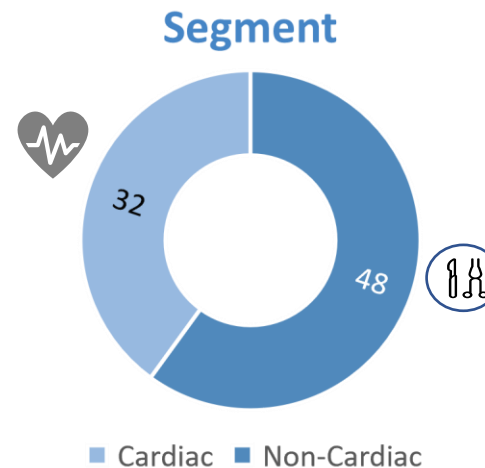
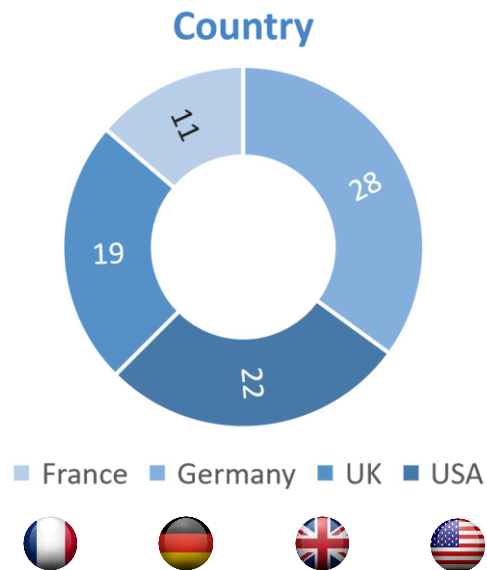
10 minutes online quantitative survey in native language  
N=80 participants; all performing interventional surgical procedures

## Timing

March/April 2021



## Sample Details (n=80)



## Cardiac Segment

Cardiac Surgeon, Cardio-Vascular Surgeon, Vascular Surgeon, Interventional Cardiologist

## Non-Cardiac Segment

General Surgeon, Neurosurgeon, Orthopedic Surgeon, Thoracic Surgeon, Urological Surgeon, Other



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## KEY INSIGHTS

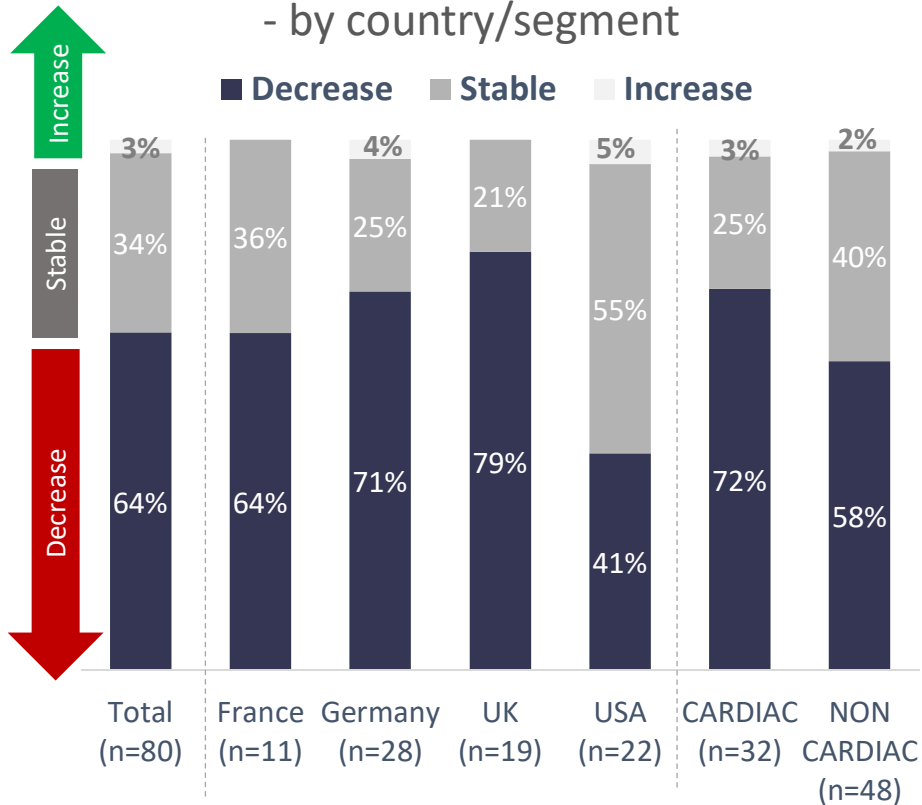
# KEY INSIGHTS



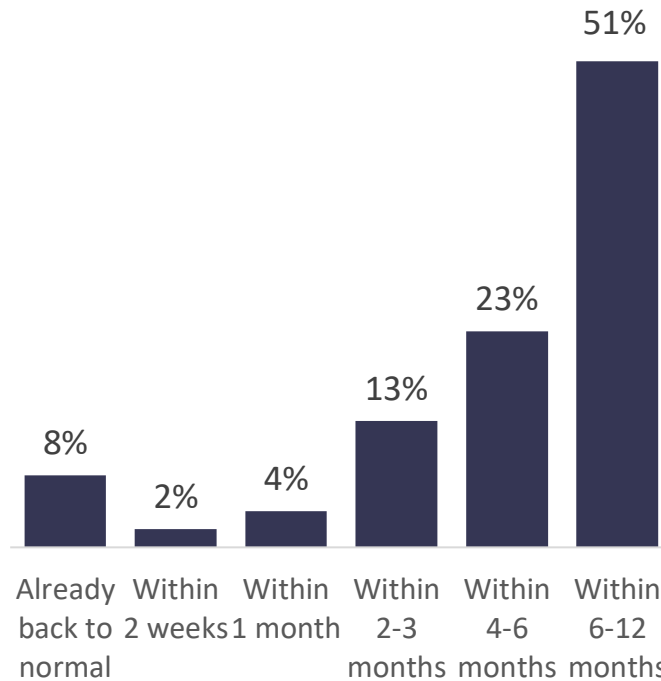
64% of respondents indicate a decrease in their current procedure volumes.

For most of the sample (51%) procedure volumes will only recover to pre-COVID volumes in 6-12 months.

Current Procedure volume compared to pre-COVID - by country/segment



Anticipated time to pre-COVID procedure volumes - total sample



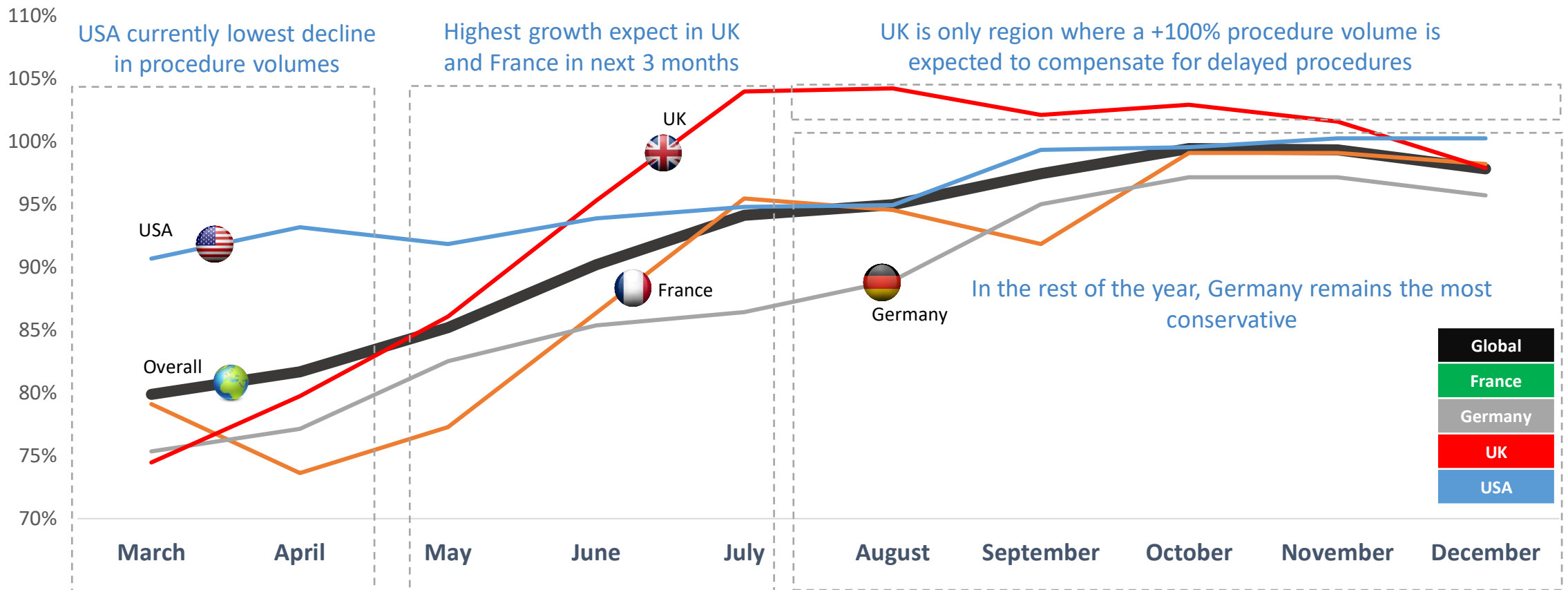
- Only 41% of USA respondents indicated a decrease of procedure volumes and majority, 55%, indicating it is already at pre-COVID level
- Majority of total sample thinks it will take the remainder of 2021 to reach pre-COVID procedures volumes

# KEY INSIGHTS



Compared to pre-COVID, the USA is already higher compared to other countries. High growth expected in UK and France in the coming months. Germany remains most conservative in uptake of procedures.

### Anticipated procedure volumes compare to pre-COVID (100%) – by country



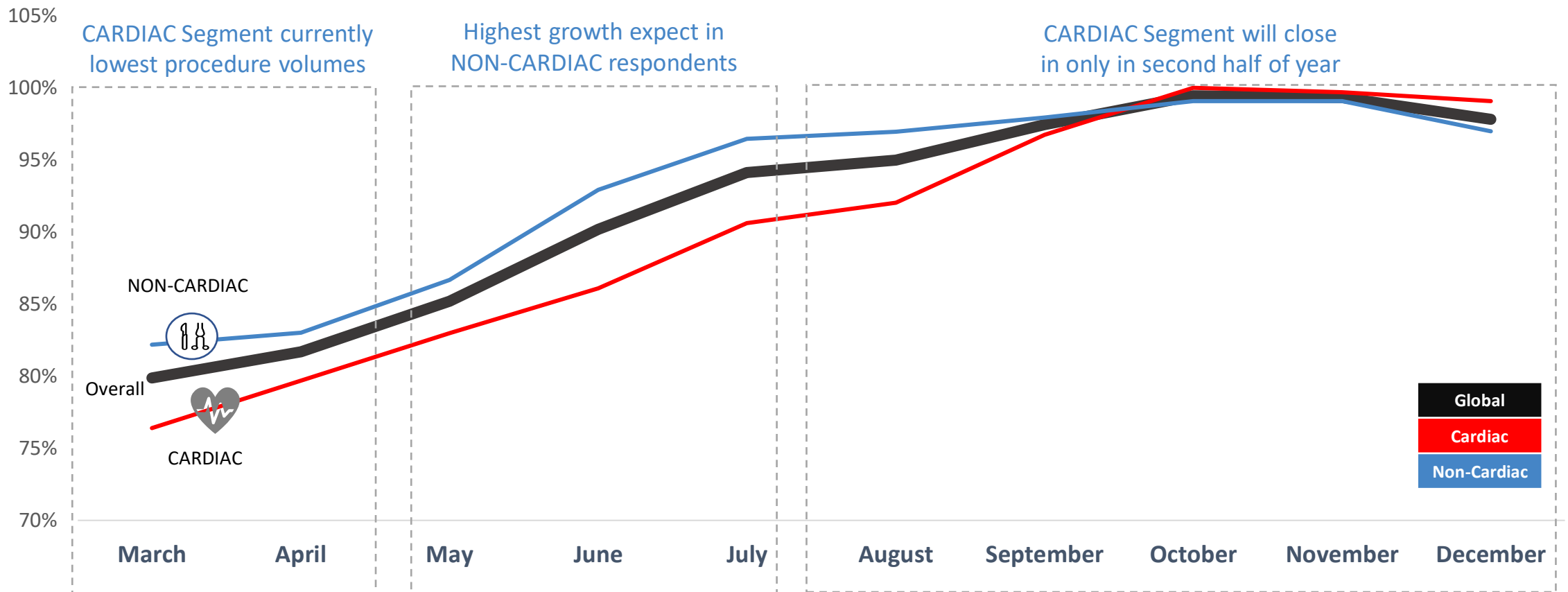


# KEY INSIGHTS



Compared to pre-COVID, the cardiac segment remains more pessimistic regarding anticipated procedure volumes. Only in the second half of the year will they will close the gap with the non-cardiac segment.

Anticipated procedure volumes compare to pre-COVID (100%) – by segment



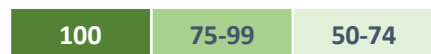




Limited OR capacity is the largest barrier for performing more surgical procedures, followed by limited bed capacity and OR nurse availability.

## Most important barriers for uptake of procedure volumes

Weighted rank	TOTAL	France	Germany	UK	USA	CARDIAC	NON CARDIAC
	80	11	28	19	22	32	48
Limited OR Capacity	100	92	100	100	71	100	100
Limited Non-COVID-19 facility bed capacity	62	83	74	35	50	89	47
Limited OR nurses available	60	100	39	65	46	89	44
Patient seeking alternative solutions	50	33	58	0	100	47	52
National/Regional COVID-19 regulations	48	42	39	21	88	50	47
Hospital policy regarding procedure handling	37	75	29	32	25	33	39
Limited Recovery room capacity	35	8	39	18	54	42	31
Time constraints	35	8	18	44	50	31	38
Government policy regarding procedure handling	32	83	24	15	33	25	36
Limited protective materials	2	0	0	3	4	3	2



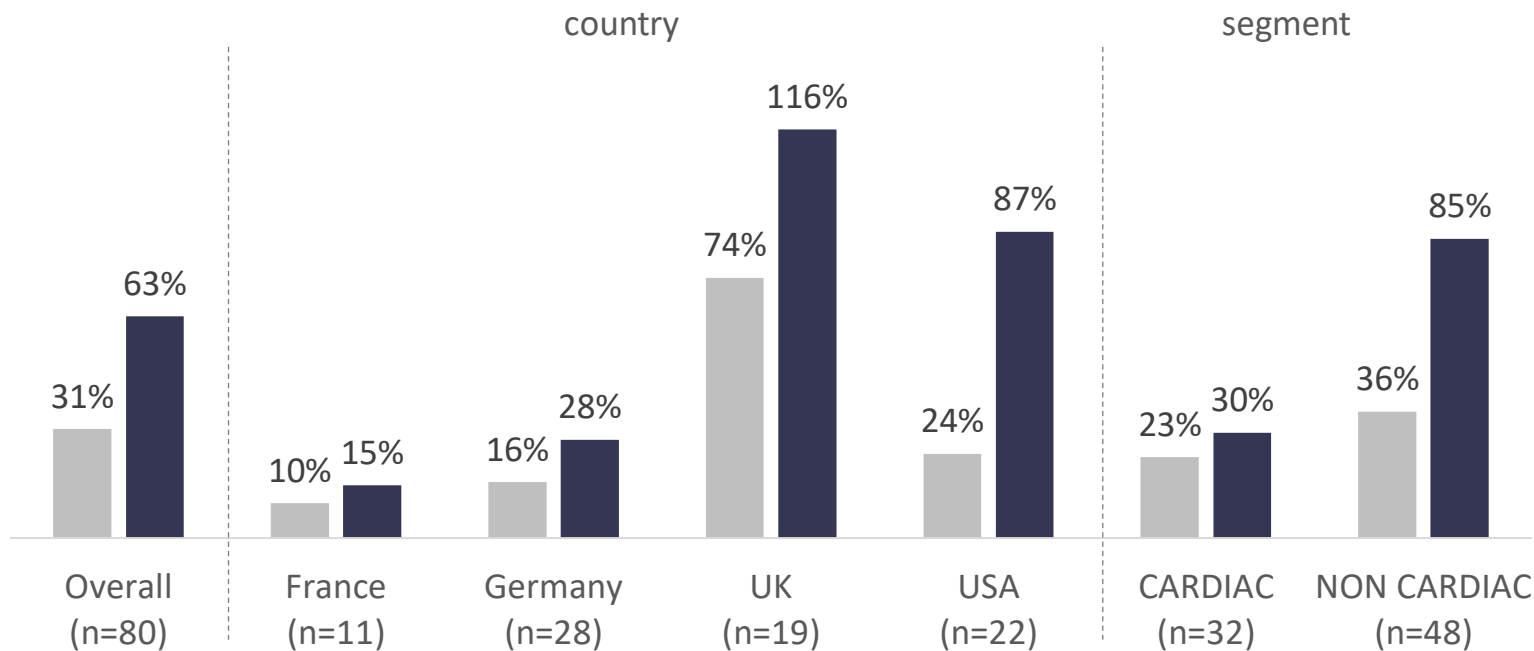
- Limited OR capacity is consistently considered the most important barrier globally, but rest differs by country.
- Patients seeking alternative solutions is a top barrier in the USA and NON-CARDIAC segments.
- Non-COVID bed capacity and OR nurse availability are also important barriers.



31% of normal consultations occur by remote tele-consultation. This is estimated as 63% more compared to pre-COVID.

Consultations being done by remote tele-consultations  
(e.g. Phone, Skype/Teams, Zoom)



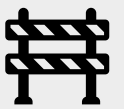

■ % tele-consultation last 3 months    ■ % change tele-consultations compared to pre-COVID



- UK highest % of consultations done by remote teleconsultation.
- All countries and segment indicate a growth of tele-consultations. In the UK this has more than doubled compared to pre-COVID.
- CARDIAC segment lower tele-consultations compared to NON-CARDIAC segment.



## Key Takeaways

-  **64%** of total respondent sample indicate they have a **decrease** in procedure volumes, and majority of sample indicate an expectation of **6 to 12 months to reach pre-COVID procedure volumes**.
-  **USA and non-cardiac segments indicate the lowest decrease in current procedure volumes**, compared to pre-COVID. In the second half of the year, procedure volumes will return to pre-COVID volumes, but **no large 'over' compensation** expected to handle delayed procedures.
-  **Limited OR capacity** is the largest barrier for performing more surgical procedures, followed by **limited bed capacity and OR nurse availability**.
-  There is a **63% overall increase in remote teleconsultations**, representing an average of 31% of all consultations.



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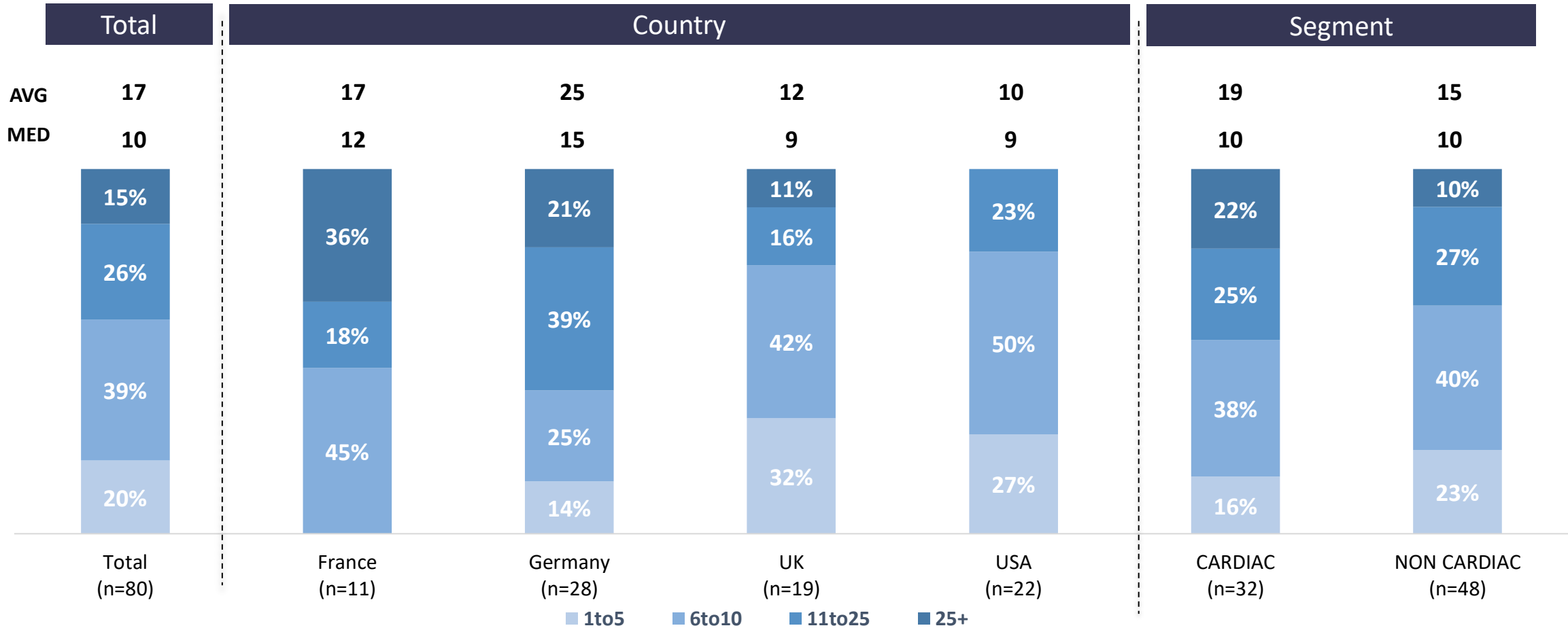


## DETAILED RESULTS

# Before COVID-19: Personal Weekly Volume of Elective / Semi-Elective Procedures



Average of 17 procedures today compared to pre-COVID, with higher volumes in Germany and France.

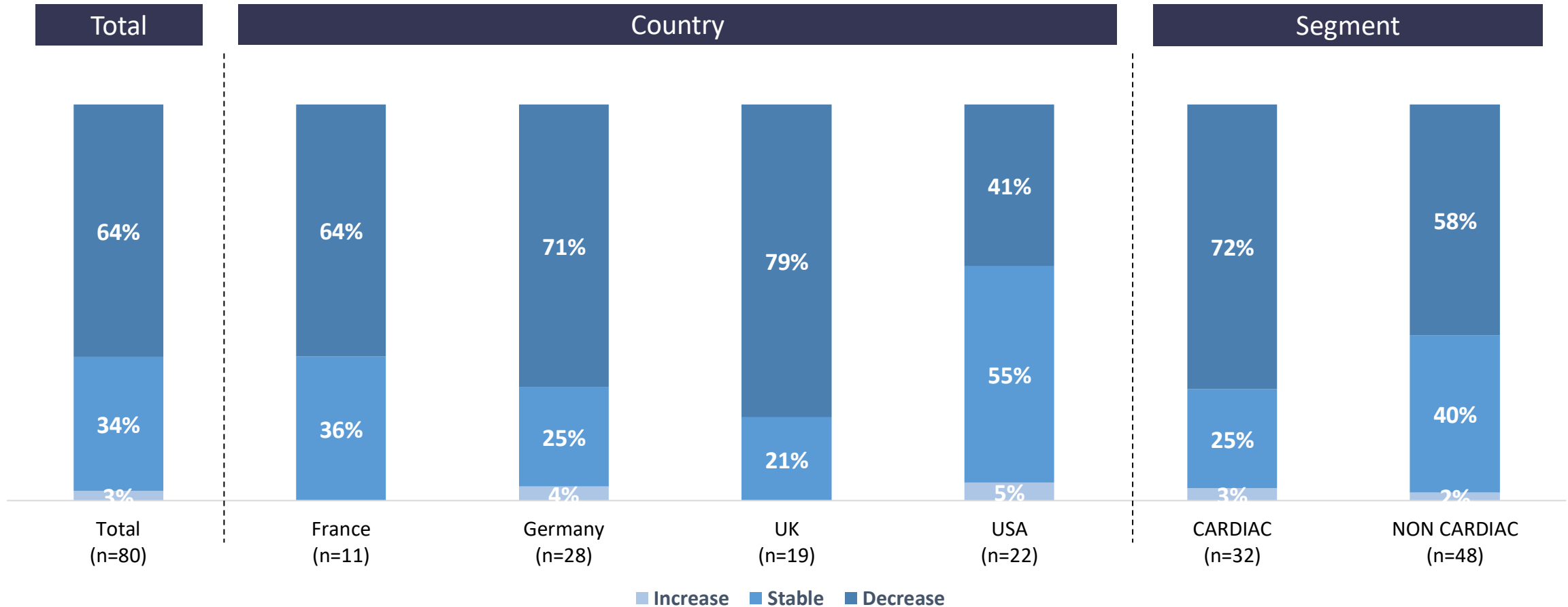


Before the COVID-19 pandemic began, what was your personal average total procedure Elective / Semi-Elective procedure volume in a typical week?

# Before COVID-19: Personal Weekly Volume of Elective / Semi-Elective Procedures



64% of respondents indicate a decrease in their current procedure volumes.

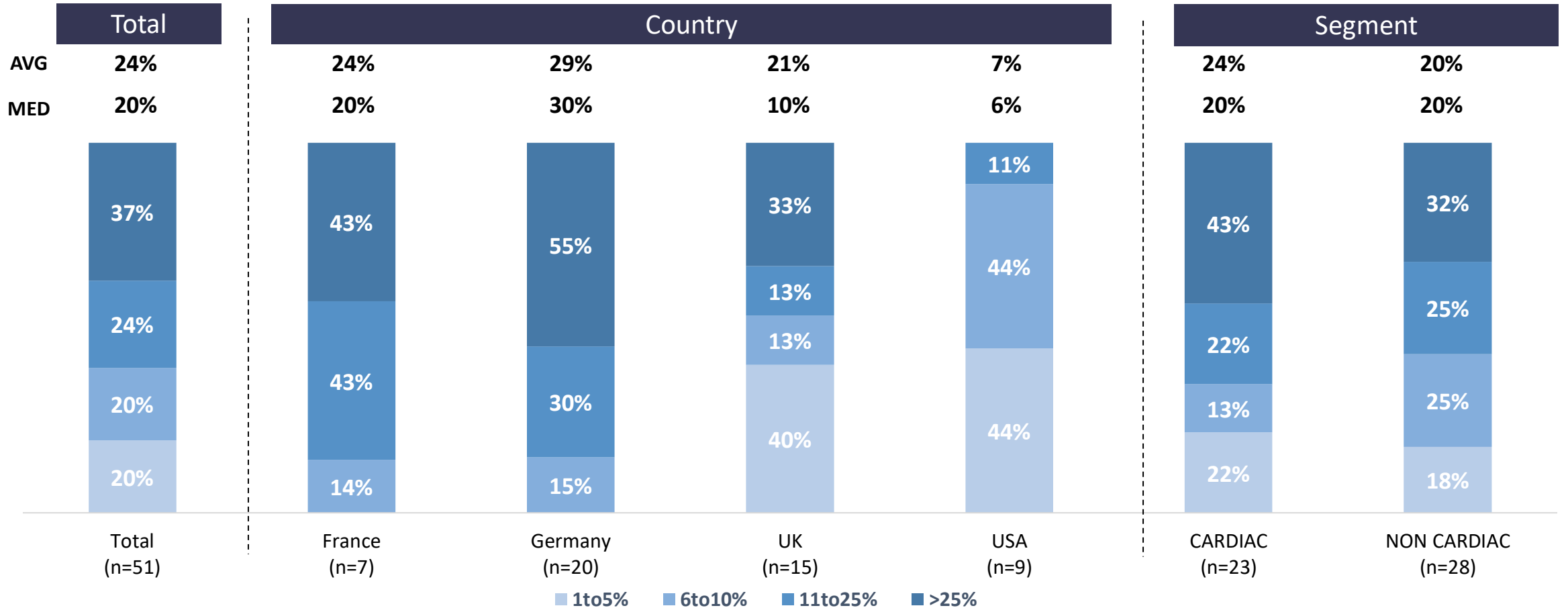


What is your weekly procedure volume of Elective/Semi-Elective procedures today compared to pre-Covid? Increase/Stable/Decrease. Please provide a percentage for the chosen status. (Pre-Covid = 100%)

# Trend: Comparison to Pre-COVID (Mentioned 'Decrease', N=51)



Higher procedure volumes to compensate are anticipated in European regions vs. USA.



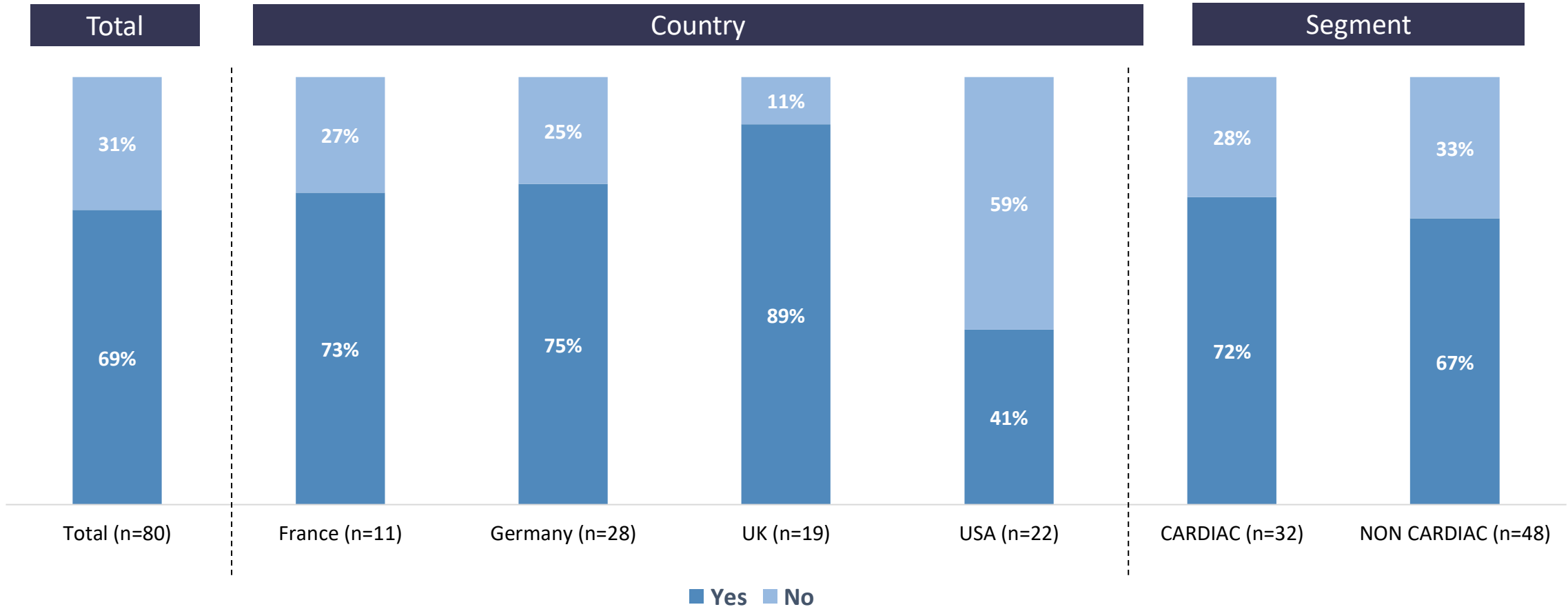
What is your weekly procedure volume of Elective/Semi-Elective procedures today compared to pre-Covid? Increase/Stable/Decrease. Please provide a percentage for the chosen status. (Pre-Covid = 100%)



# Trend: Impact on Last Impact of Surgical Procedure Volume for Next Year



Two out of three anticipate experiencing a lasting impact on surgical procedure volume over the next year.

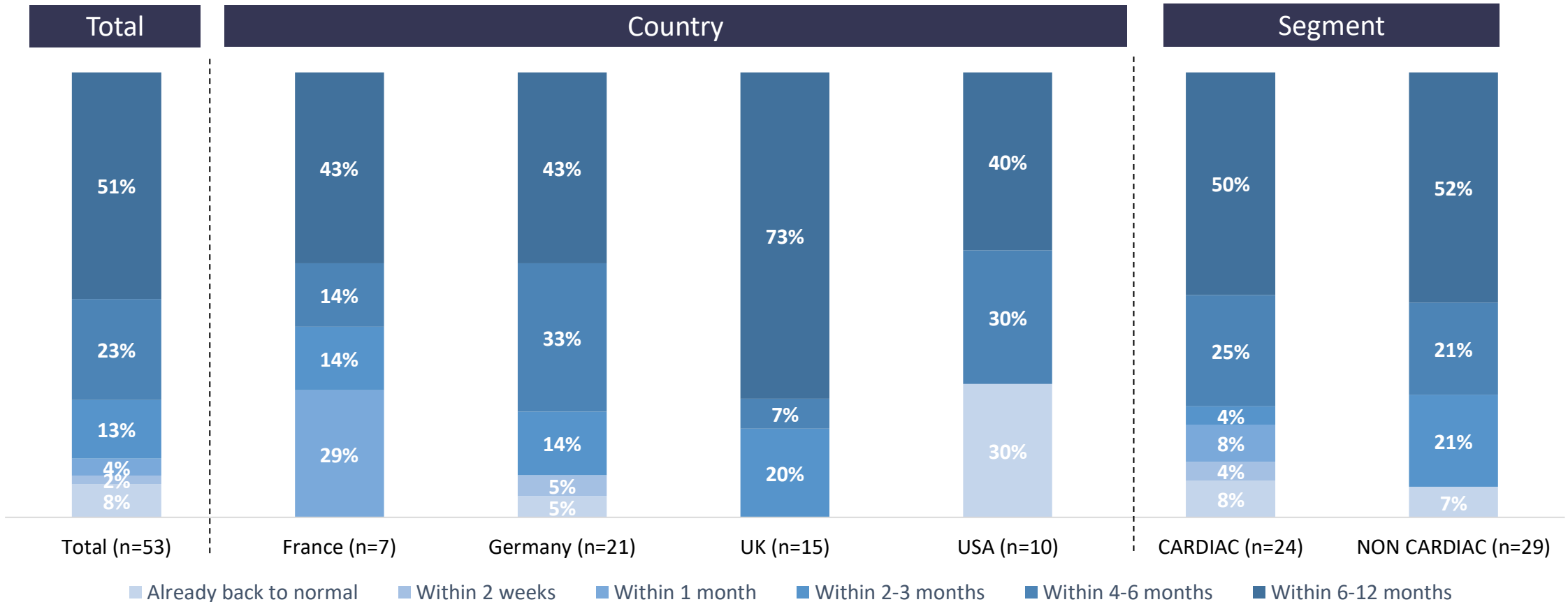


Do you anticipate the current situation having a lasting impact on surgical procedure volume in your hospital/practice for the next year?

# Trend: Expected Time to Pre-COVID Procedure Volumes



Over half do not expect a return to pre-COVID volumes for at least six to twelve months.

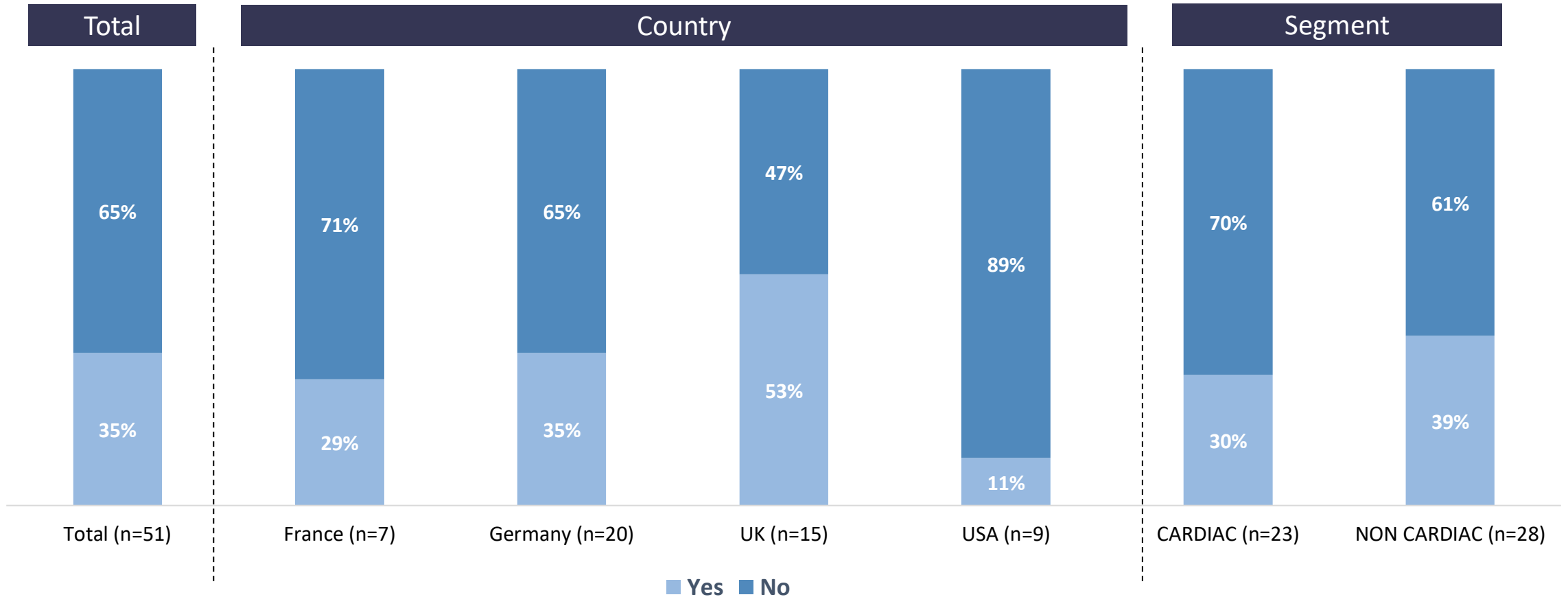


By when do you anticipate your activity to return to its pre-COVID-19 procedure volume?

# Trend: Comparison to Pre-COVID



Two out of three respond with no – this is higher among those in USA and France.



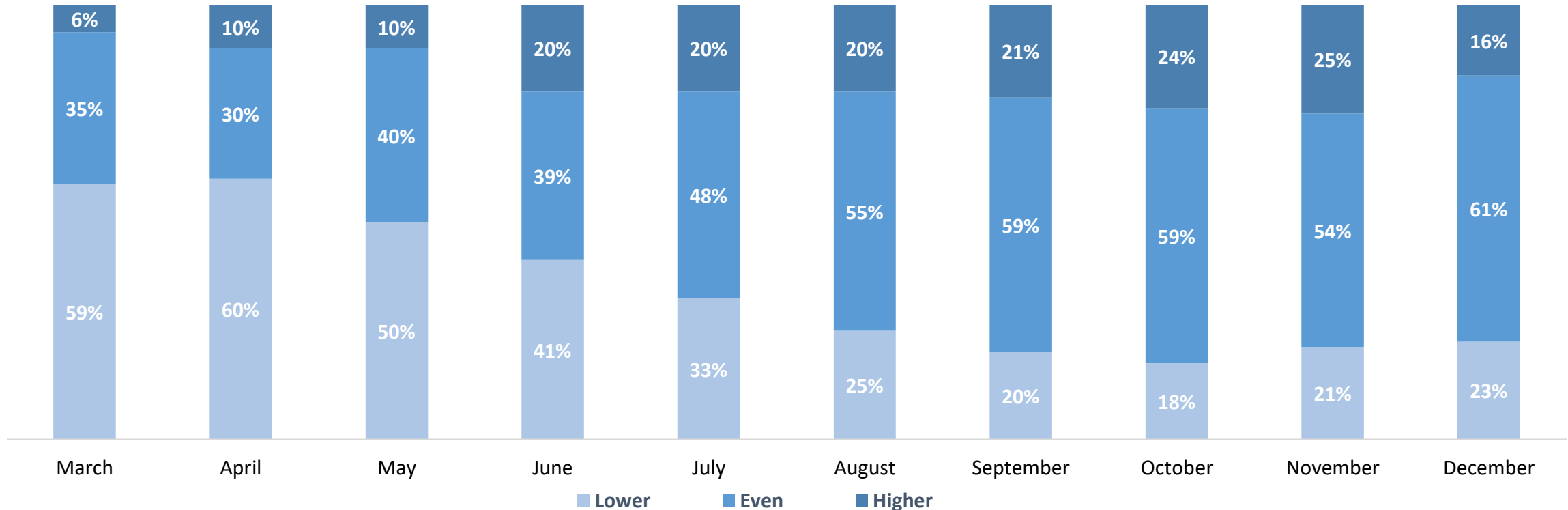
You have indicated a decrease in weekly volume, do you expect to have a higher procedure volume compared to the pre-COVID-19 procedure volume in the next months to compensate for the not performed procedures?

# Trend: Percentage Difference in Procedure Volume (vs. Pre-COVID)



Procedure volume sees anticipated lower rate of decline toward the end of the summer months.

Trend months 2021

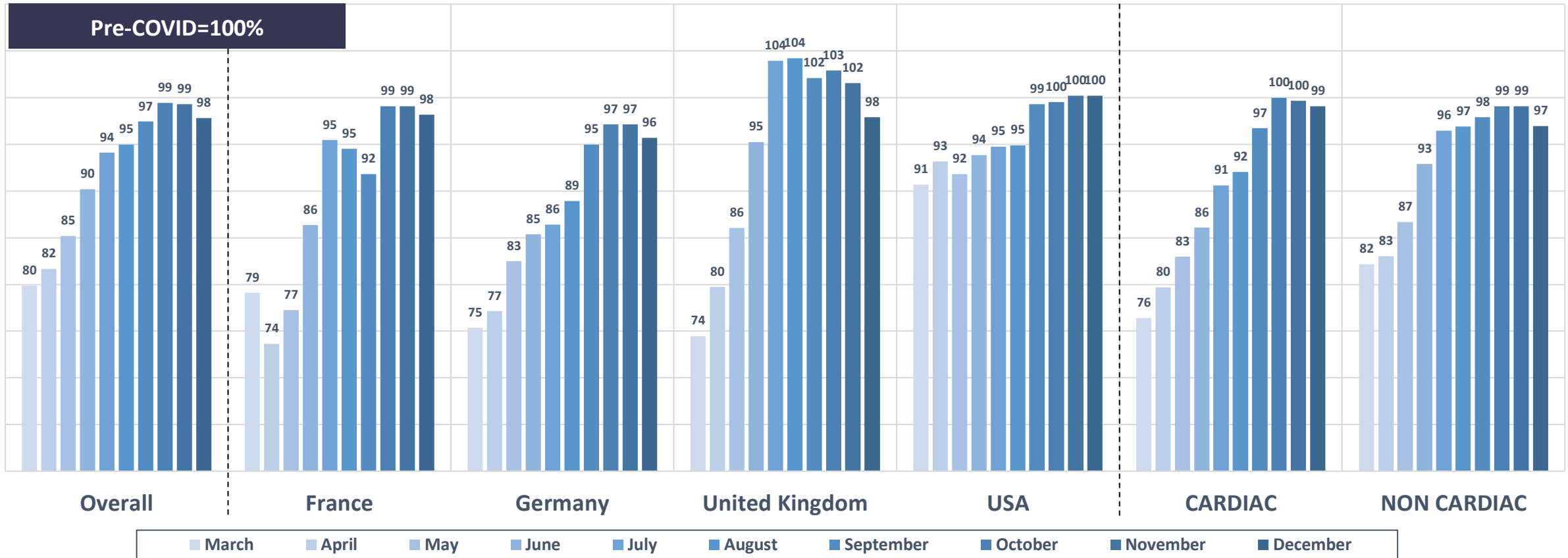


How do you anticipate your procedure volume to be in relation to your pre-COVID-19 procedure volume in the following periods? Please select Higher, Lower or Even and provide a percentage. (pre-COVID=100%)

# Trend: Percentage Difference in Procedure Volume (vs. Pre-COVID)



Trend months 2021 – by country/segment

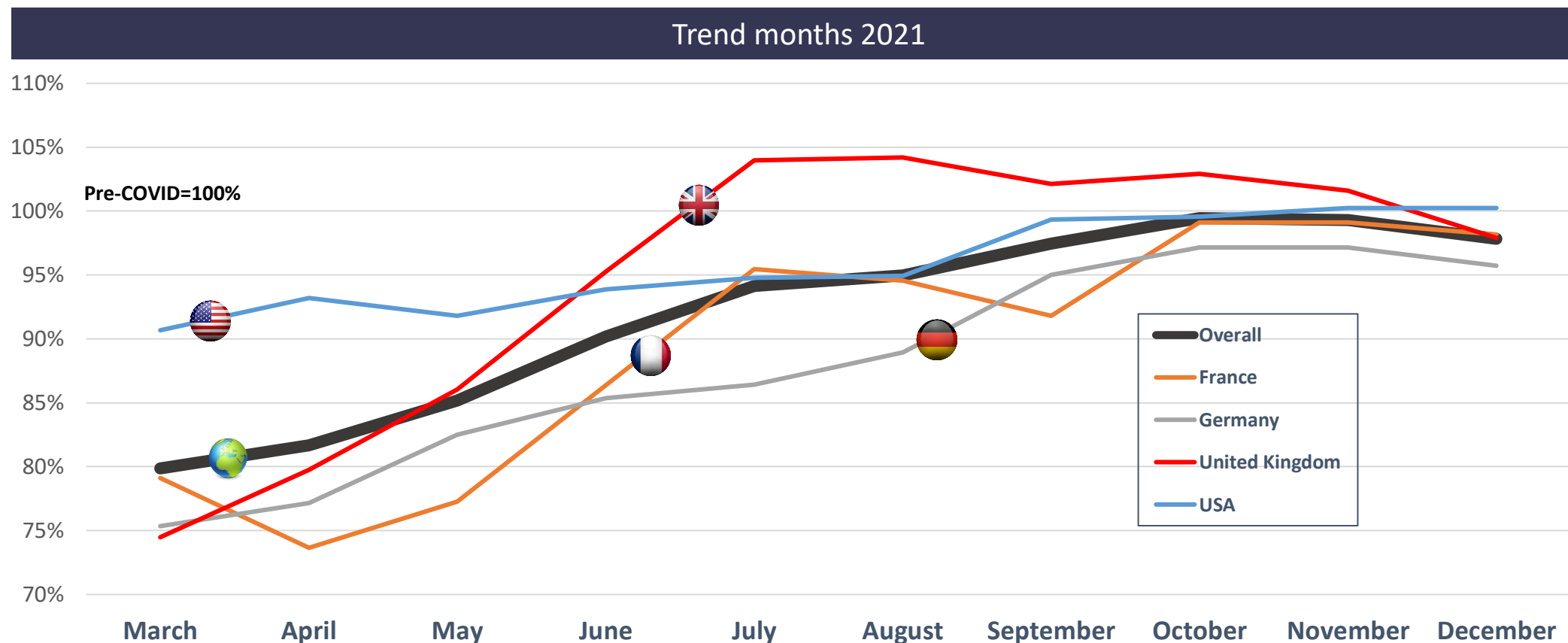


How do you anticipate your procedure volume to be in relation to your pre-COVID-19 procedure volume in the following periods? Please select Higher, Lower or Even and provide a percentage. (pre-COVID=100%)

# Trend: Percentage Difference in Procedure Volume (vs. Pre-COVID)



Compared to pre-COVID, the USA is already higher compared to other countries. High growth expected in UK and France in the coming months. Germany remains most conservative in uptake of procedures.

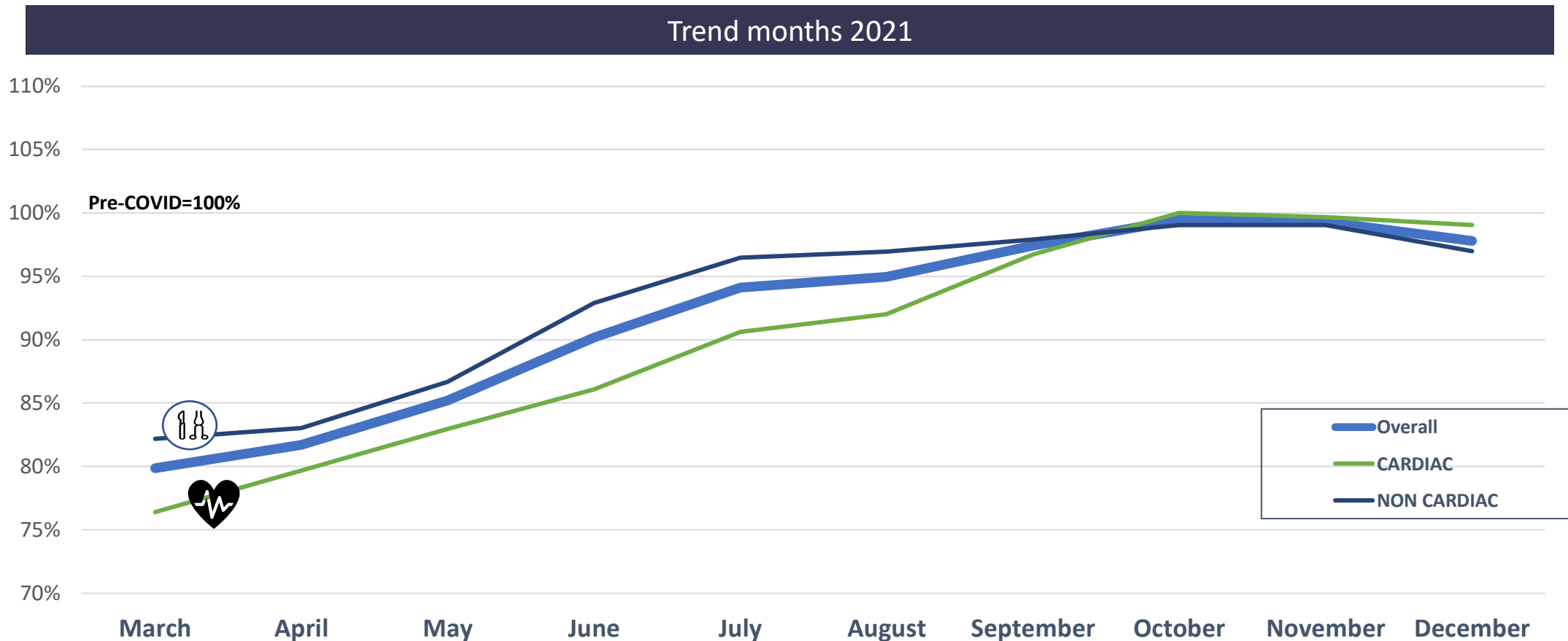


How do you anticipate your procedure volume to be in relation to your pre-COVID-19 procedure volume in the following periods? Please select Higher, Lower or Even and provide a percentage. (pre-COVID=100%)



# Trend: Percentage Difference in Procedure Volume (vs. Pre-COVID)

Compared to pre-COVID, the cardiac segment remains more pessimistic regarding anticipated procedure volumes. Only in the second half of the year will they will close the gap with the non-cardiac segment.



Overall  
CARDIAC  
NON CARDIAC

How do you anticipate your procedure volume to be in relation to your pre-COVID-19 procedure volume in the following periods? Please select Higher, Lower or Even and provide a percentage. (pre-COVID=100%)



# Cardiac: Impact on Procedure Types in Past Year



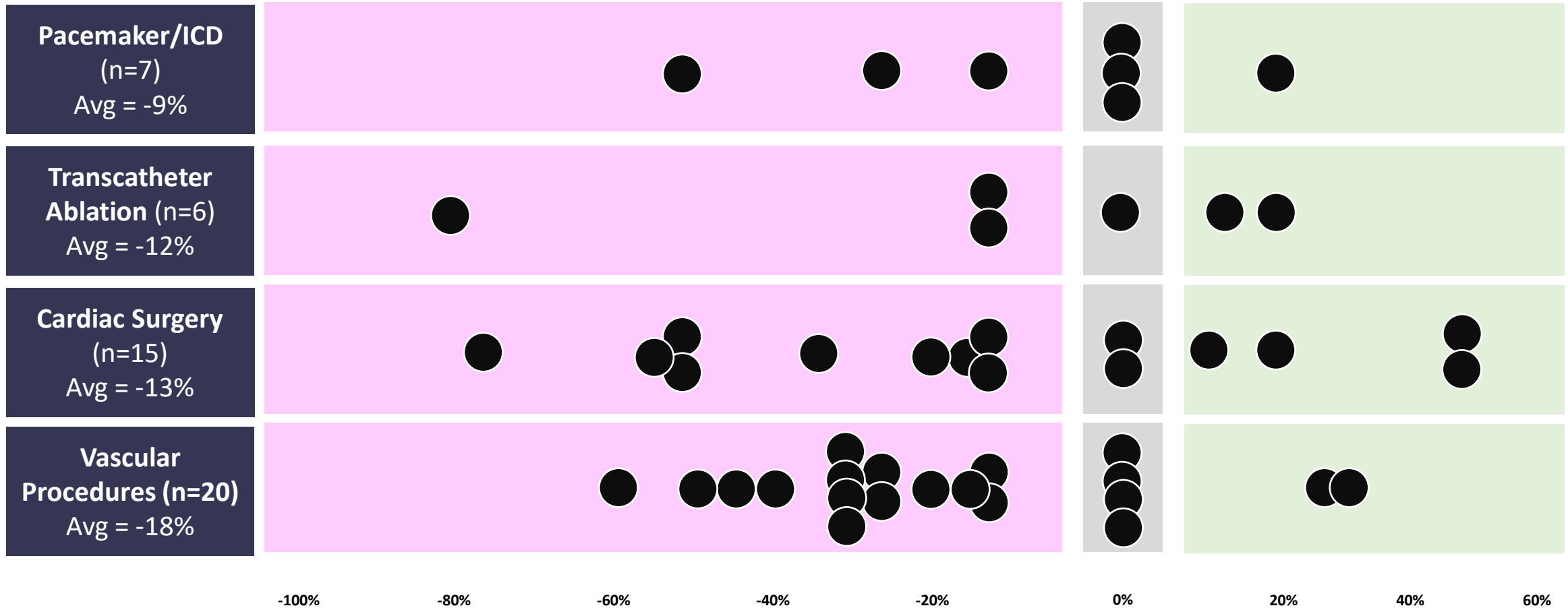
Vascular procedures show highest decrease.

Cardiac Profiles Only, N=32



Each respondent is plotted individually on the map.

% of impact compared to pre-COVID



What type of procedures have been impacted the most in the last year? Please indicate if you perform these procedures and the % of impact compared to pre-COVID.

# Cardiac: Anticipated Future Performance Over Next Six Months



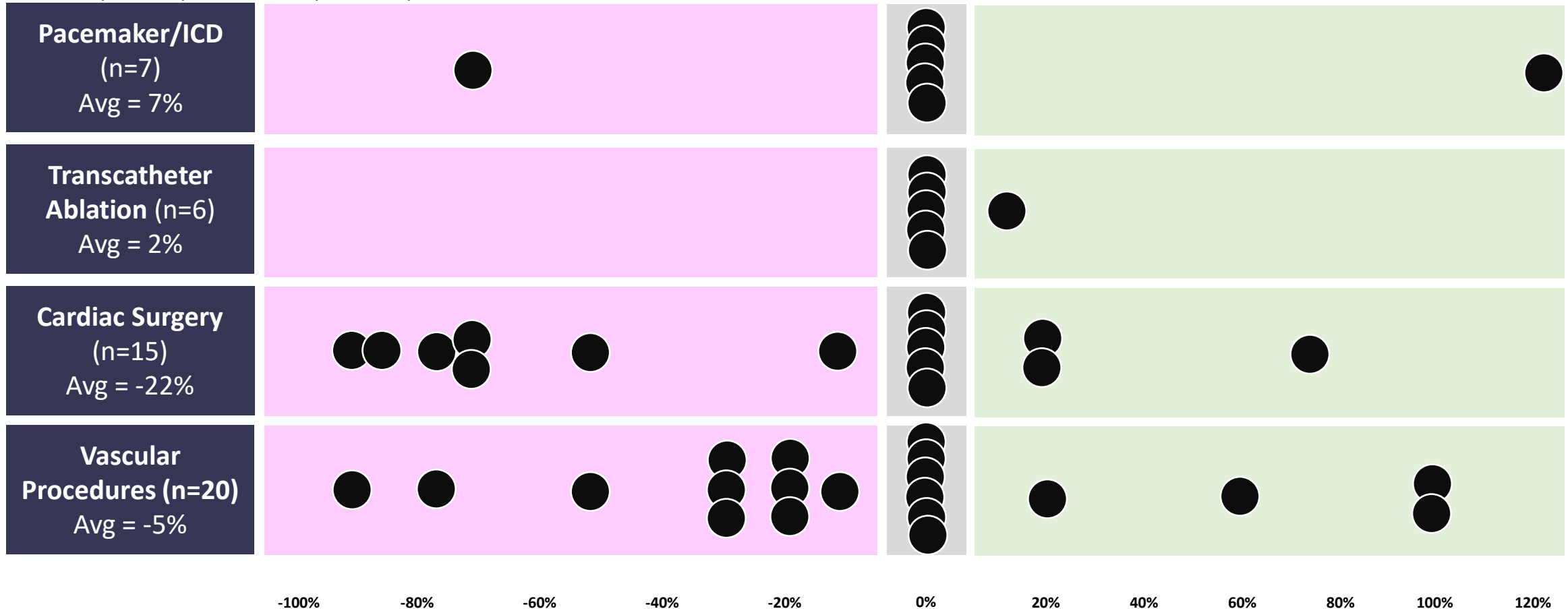
Negative trend continues in cardiac surgery and vascular procedures.

Cardiac Profiles Only, N=32



Each respondent is plotted individually on the map.

% anticipate to perform compared to pre-COVID

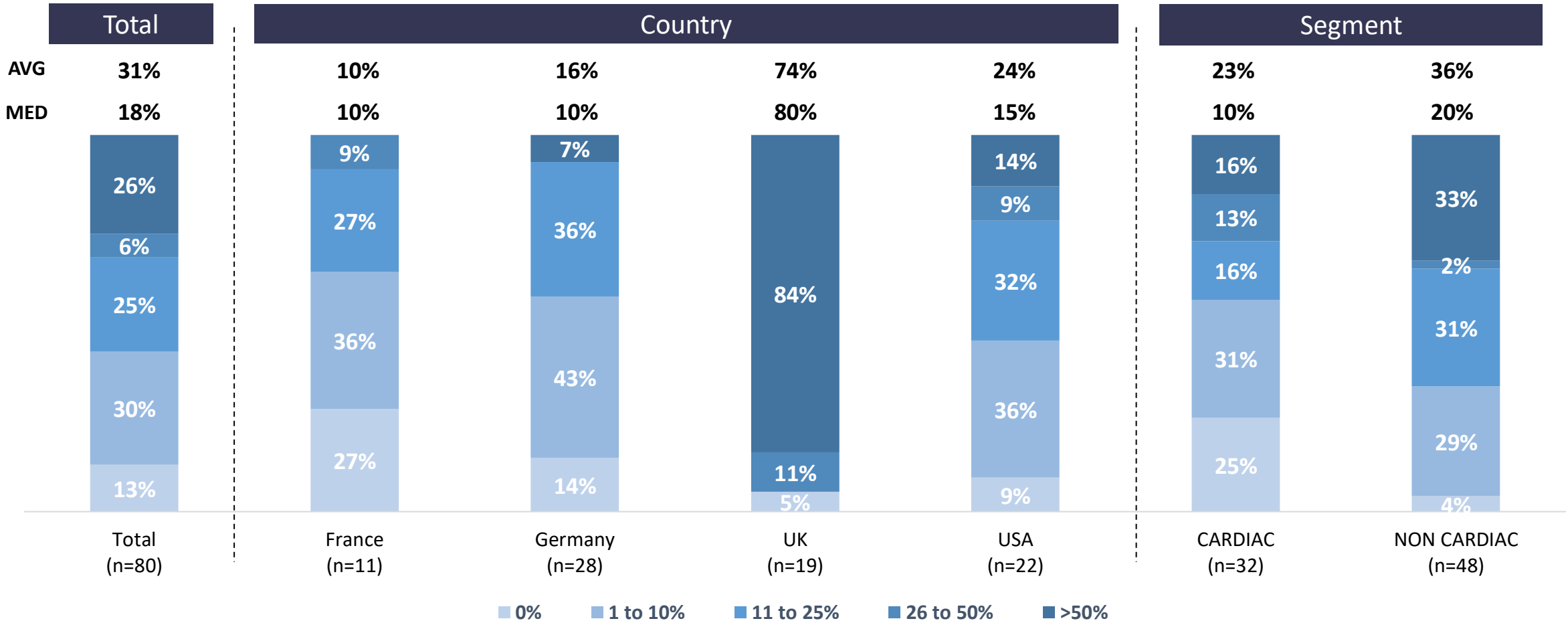


How much of for the specific type of procedures do you anticipate to perform during the next 6 months compared to pre-COVID 19 procedure volume?

# Percentage of Consultations Conducted Remotely



31% of consultations have occurred remotely in most recent three-month period. This is much higher in the UK.

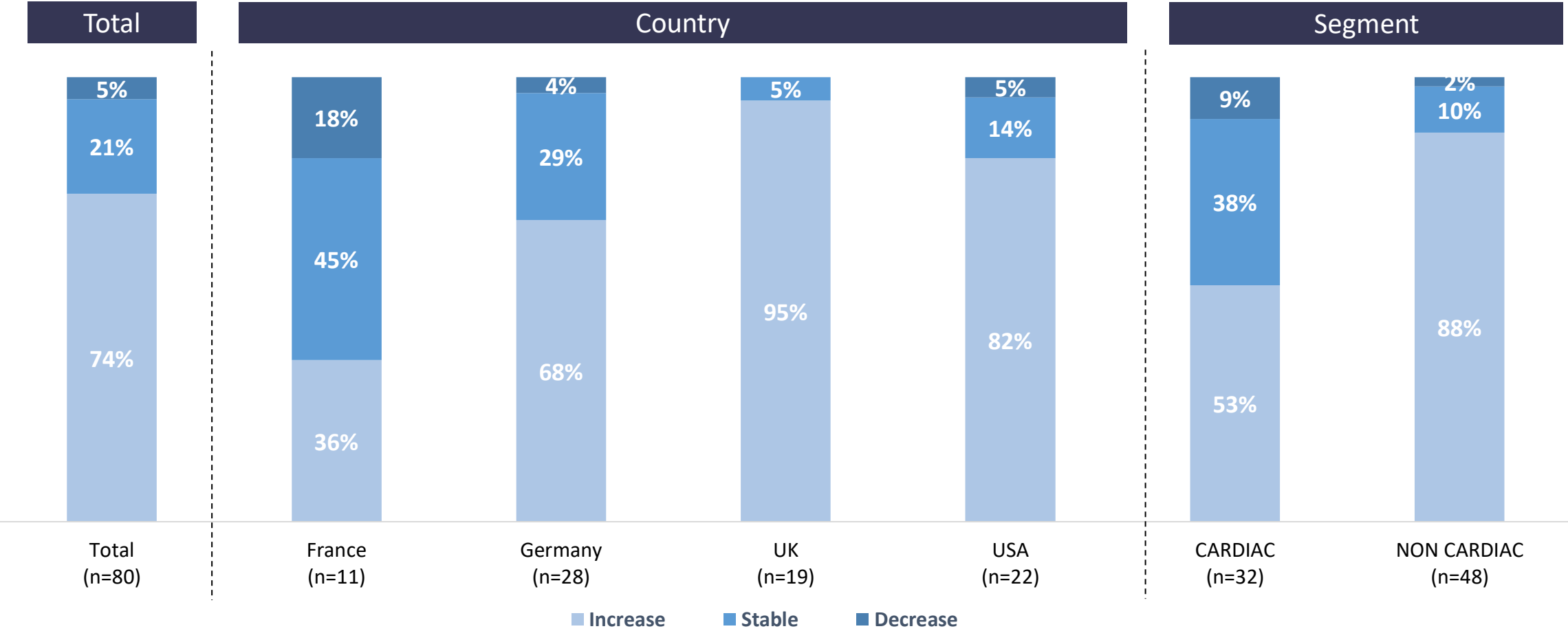


In the last 3 months, can you estimate the total % of your consultations being done by remote tele-consultations (e.g., by phone, skype, zoom)?

# Consultations Conducted Remotely (Compared to Pre-COVID)



Nearly three out of four state remote consultation has increased compared to pre-COVID utilization.



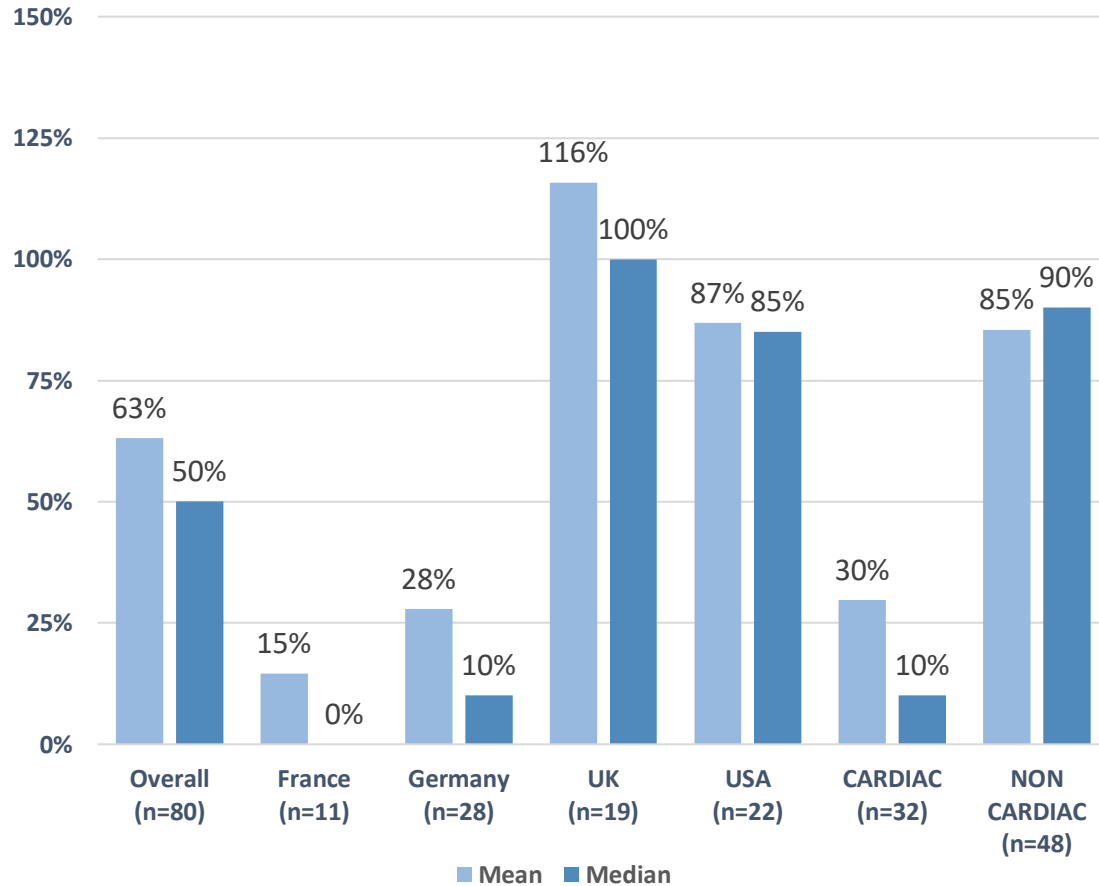
How much has this changed if you compare to Pre-Covid? Please provide a percentage for the chosen status (Pre-Covid=100%)

# Consultations Conducted Remotely - Percentage Change



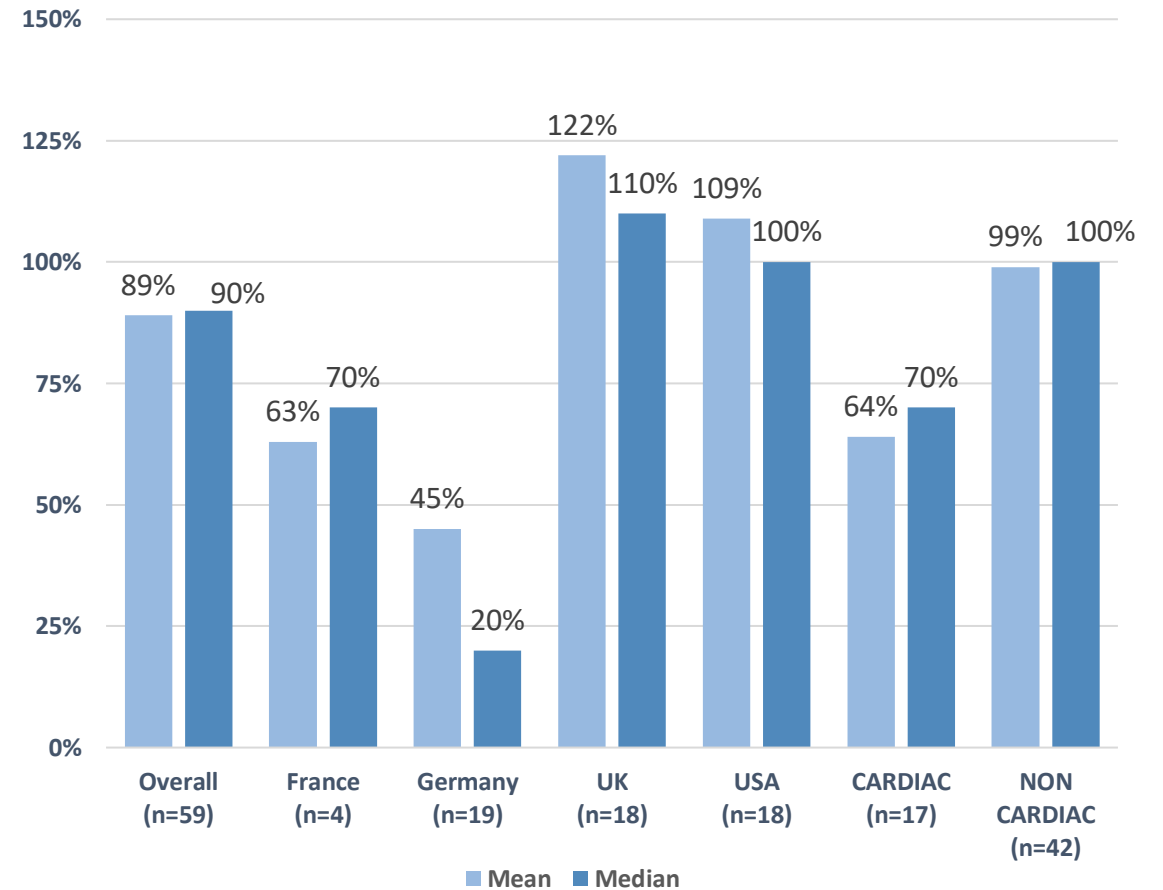
Overall increase of 63%.

Total Sample (n=80)



Of those mentioning an increase, this increase is north of 100% in UK and USA.

Increase Respondents only (n=59)



How much has this changed if you compare to Pre-Covid? Please provide a percentage for the chosen status (Pre-Covid=100%)



# Pacemaker / ICD: Remote Monitoring Management

On average, 44% of patients implanted with a Pacemaker/ICD were managed by remote monitoring, an increase of 19%.

Pacemaker/ICD

AVG = 44%

% of patients implanted with a Pacemaker/ICD managed by remote monitoring (last 3 months)

Pacemaker/ ICD	20%	2
	30%	1
	50%	2
	60%	1
	80%	1
		<b>N=7</b>

In the last 3 months, can you estimate the total % of your patients implanted with a Pacemaker/ICD were managed by remote monitoring (e.g., connected bedside monitors, mobile apps)

Pacemaker/ICD

AVG = 19%

Trend compared to Pre-Covid

Pacemaker/ ICD	0%	3
	20%	1
	30%	2
	50%	1
		<b>N=7</b>

How much has this changed if you compare to Pre-Covid?

Pacemaker/ICD

Increase

How management by remote monitoring will evolve after Covid pandemic

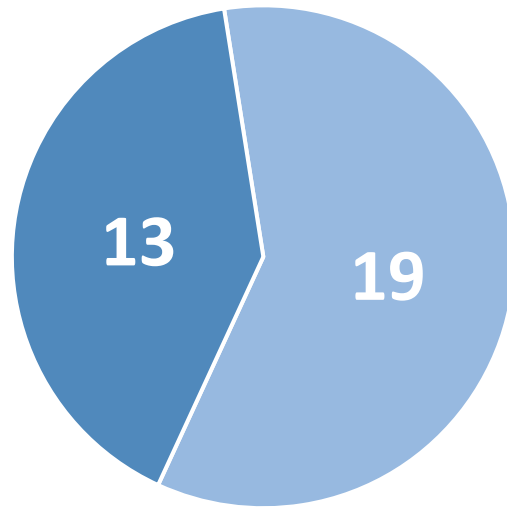
Pacemaker/ ICD	Stable	1
	Increase	6
		<b>N=7</b>

How do you think management by remote monitoring will evolve after Covid pandemic?



Nearly two thirds have seen patients presenting with Cardiac disease exacerbated or brought about by a prior COVID infection.

Participants seen Cardiac disease brought about by COVID infection



■ Yes ■ No

N=32

If yes, how many patients

**AVG** 4.3

**MED** 4.0

Times mentioned	Number of patients
-----------------	--------------------

2	1
3	2
3	3
2	4
6	5
1	6
2	10

**N=19**

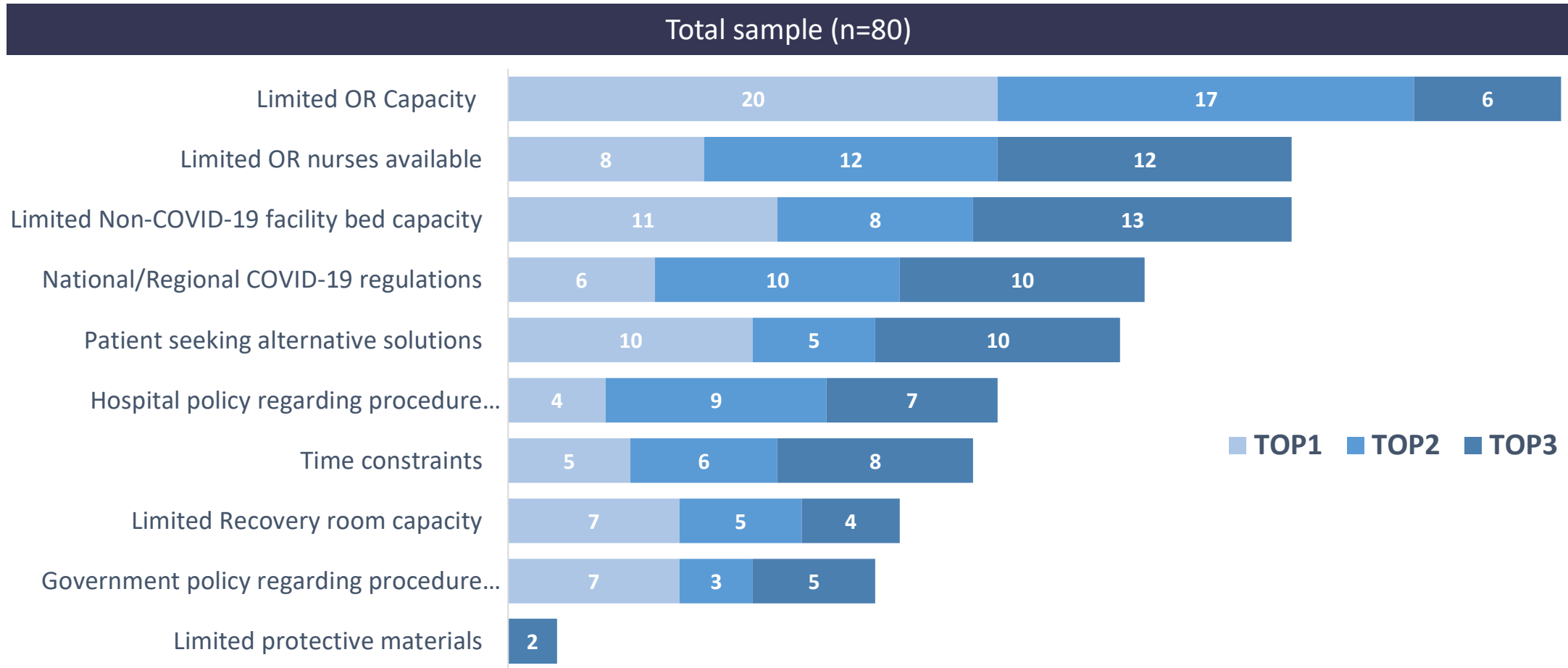
In your practice, have you seen patients presenting with Cardiac disease that you believe has been exacerbated or brought about by a prior COVID infection? (If so, how many)



# Barriers to Higher Procedure Volumes



Top barriers to higher procedure volumes include limited OR capacity and limited OR nurses available.



What do you think are the top 3 most important barriers for uptake of your procedure volumes? Select top 3

# Barriers to Higher Procedure Volumes






When looking at this data by a weighted rank (which takes into account the ranking of first, second, and third), limited OR capacity rises to the top of the list of barriers.

	100	75-99	50-74							
	Weighted rank			ALL	France	Germany	UK	USA	CARDIAC	NON CARDIAC
				80	11	28	19	22	32	48
Limited OR Capacity	100	92	100	100	92	100	100	71	100	100
Limited Non-COVID-19 facility bed capacity	62	83	74	62	83	74	35	50	89	47
Limited OR nurses available	60	100	39	60	100	39	65	46	89	44
Patient seeking alternative solutions	50	33	58	50	33	58	0	100	47	52
National/Regional COVID-19 regulations	48	42	39	48	42	39	21	88	50	47
Hospital policy regarding procedure handling	37	75	29	37	75	29	32	25	33	39
Limited Recovery room capacity	35	8	39	35	8	39	18	54	42	31
Time constraints	35	8	18	35	8	18	44	50	31	38
Government policy regarding procedure handling	32	83	24	32	83	24	15	33	25	36
Limited protective materials	2	0	0	2	0	0	3	4	3	2

What do you think are the top 3 most important barriers for uptake of your procedure volumes? Select top 3

# About the Respondents: Screening



		Overall	France	Germany	UK	USA	CARDIAC	NON CARDIAC
 PROFILE	Cardiac Surgeon	12	2	2	4	4	12	0
	Cardio-Vascular Surgeon	2	0	0	2	0	2	0
	Interventional Cardiologist	4	0	4	0	0	4	0
	Vascular Surgeon	14	5	5	1	3	14	0
	General Surgeon	8	0	2	3	3	0	8
	Neurosurgeon	17	1	8	1	7	0	17
	Orthopedic Surgeon	10	1	4	2	3	0	10
	Thoracic Surgeon	3	1	0	1	1	0	3
	Urological Surgeon/ Urologist	6	1	3	2	0	0	6
	Other	4	0	0	3	1	0	4
Total		80	11	28	19	22	32	48
 FACILITY	Academic hospital	63	10	22	15	16	26	37
	Private hospital	5	0	0	0	5	3	2
	Public hospital	11	1	6	4	0	3	8
	Total		79	11	28	19	21	32
 BEDS	200 – 500	17	1	6	3	7	7	10
	>500	60	10	21	16	13	23	37
	Total		77	11	27	19	20	30



Are you interested to discuss further or learn more?

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