

Laboratory evolution and adaptation to telemedicine: Are we Blockbuster in a Netflix world?

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ARUP[®] LABORATORIES



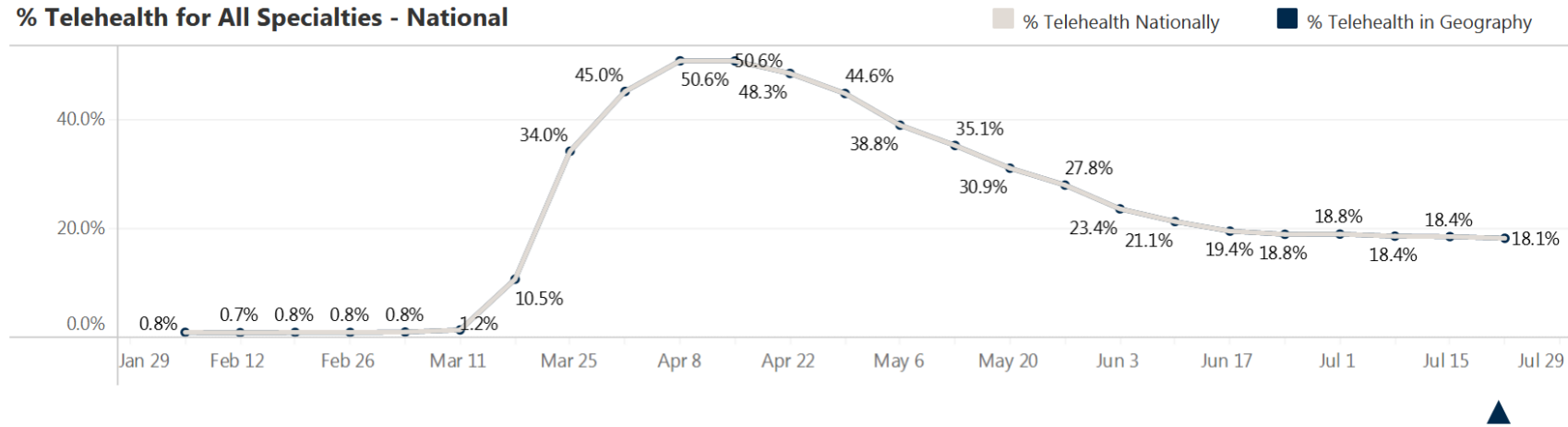
Laboratory evolution and adaptation to telemedicine: Are we Blockbuster in a Netflix world?

Review existing survey results.

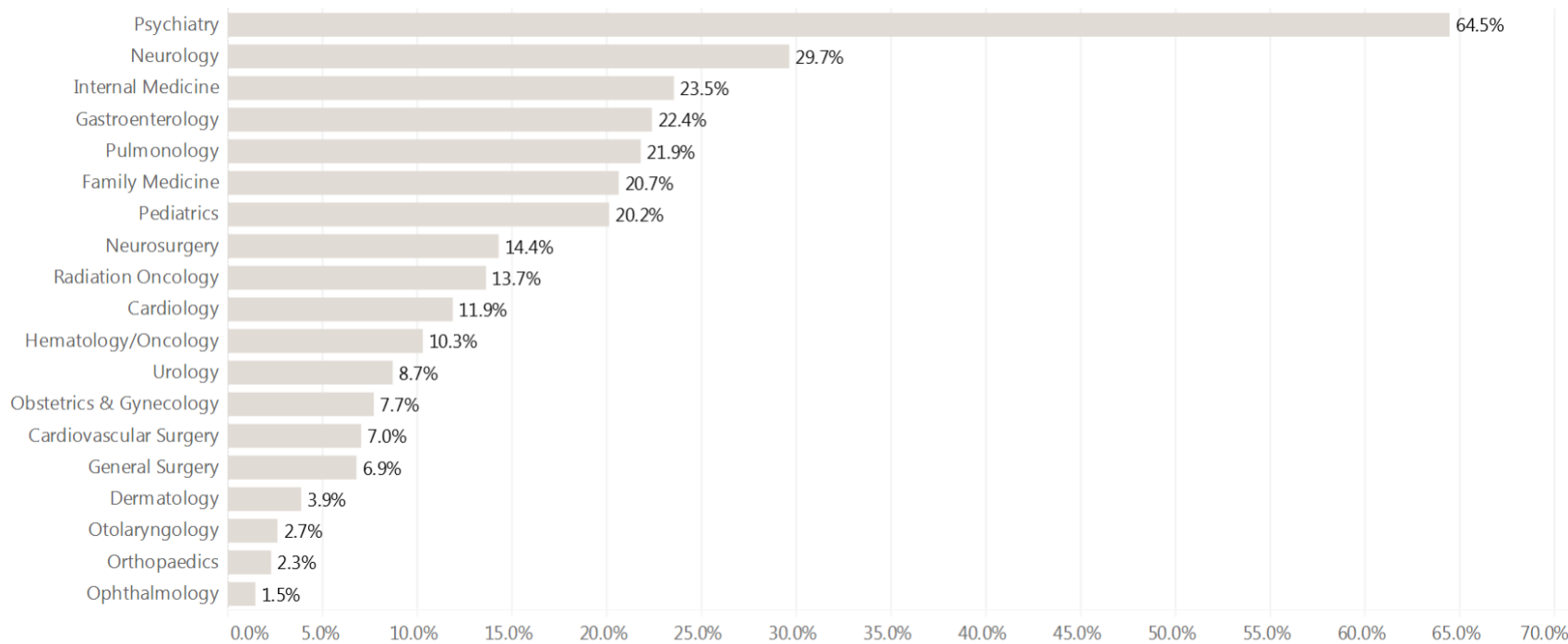
ARUP Telemedicine Survey Results.

Examine why we asked these questions.

% Telehealth for All Specialties - National



% Telehealth by Physician Specialty - National - Week of 7/22/2020



Beta version - last updated 8/5/2020

Data below sufficient sample size has been blinded for confidentiality.

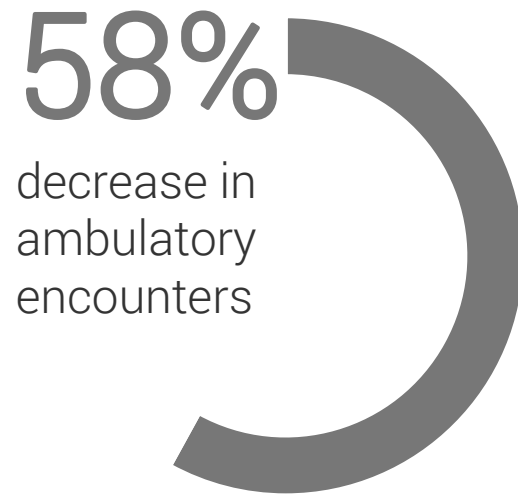
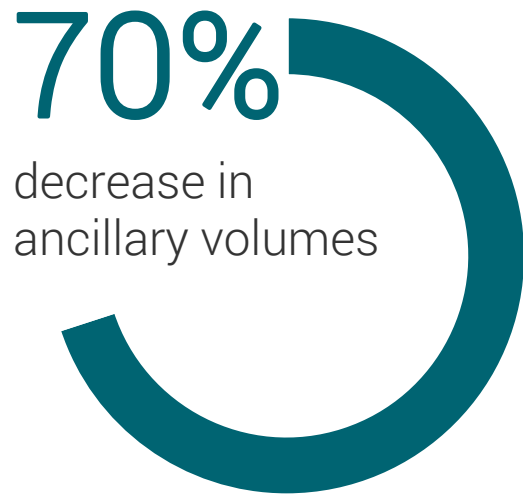
Powered by Data from Kythera Labs



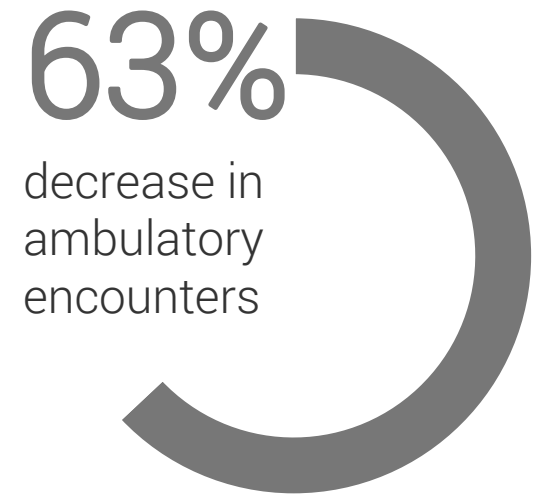
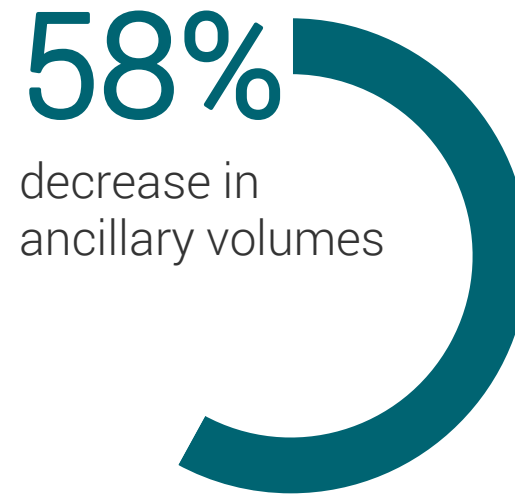
The Chartis Group.
Telehealth Adoption
Tracker from the Chartis
Group and Kythera Labs.
https://reports.chartis.com/telehealth_trends_and_implications-aug2020/
(accessed on August 12, 2020).

Transition to Telemedicine

Primary care practice volume in April 2020

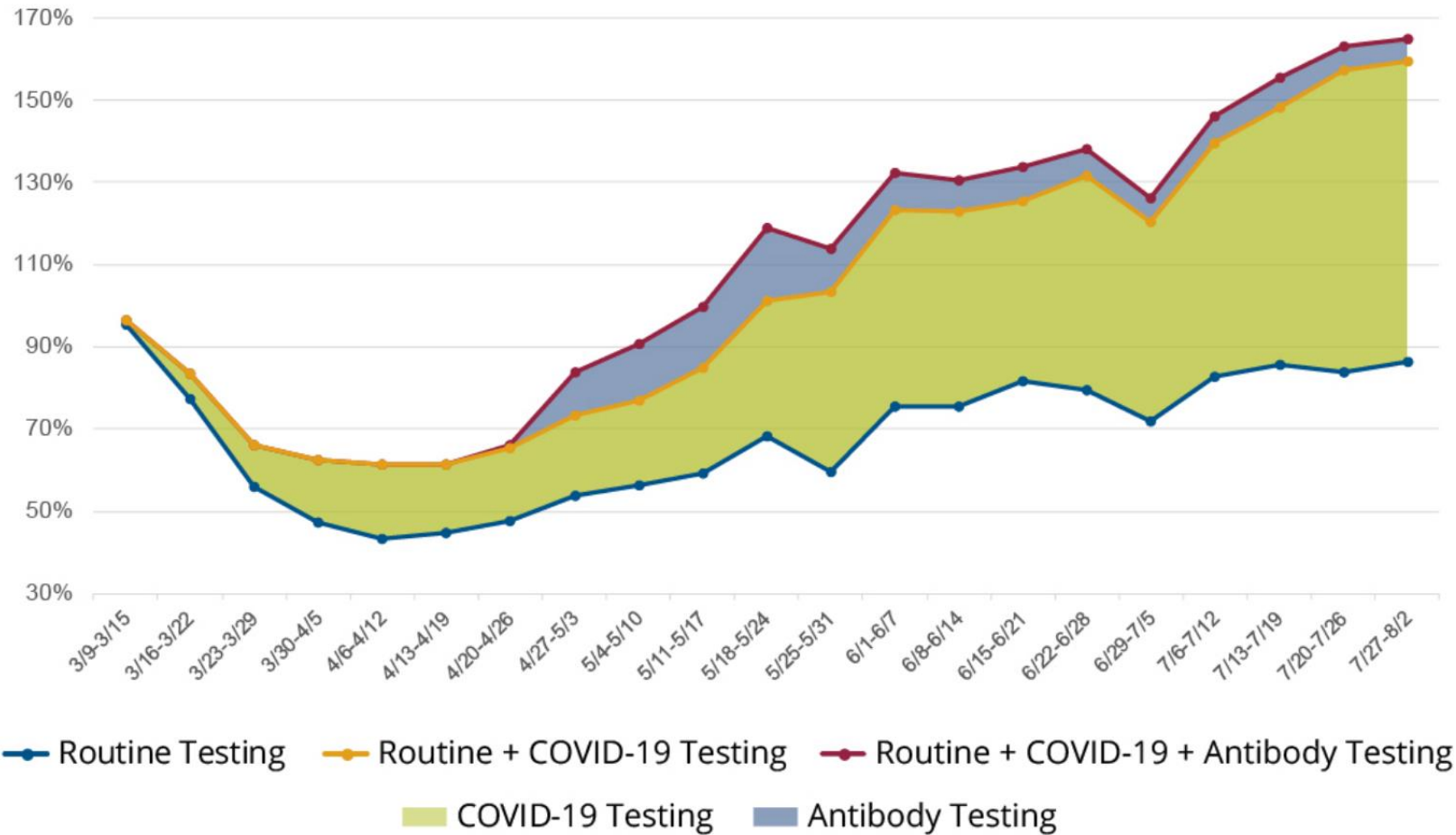


Specialty practice volume in April 2020



Laboratory Volume Index

Total Lab Tests as % of Baseline Average



COVID-19 STAT Intelligence Briefings. Lab test dashboard from XIFIN. <https://covid19briefings.com/xifin-2/> (accessed on August 12, 2020).

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ARUP SURVEY RESULTS

Overview of Laboratory Telemedicine Survey

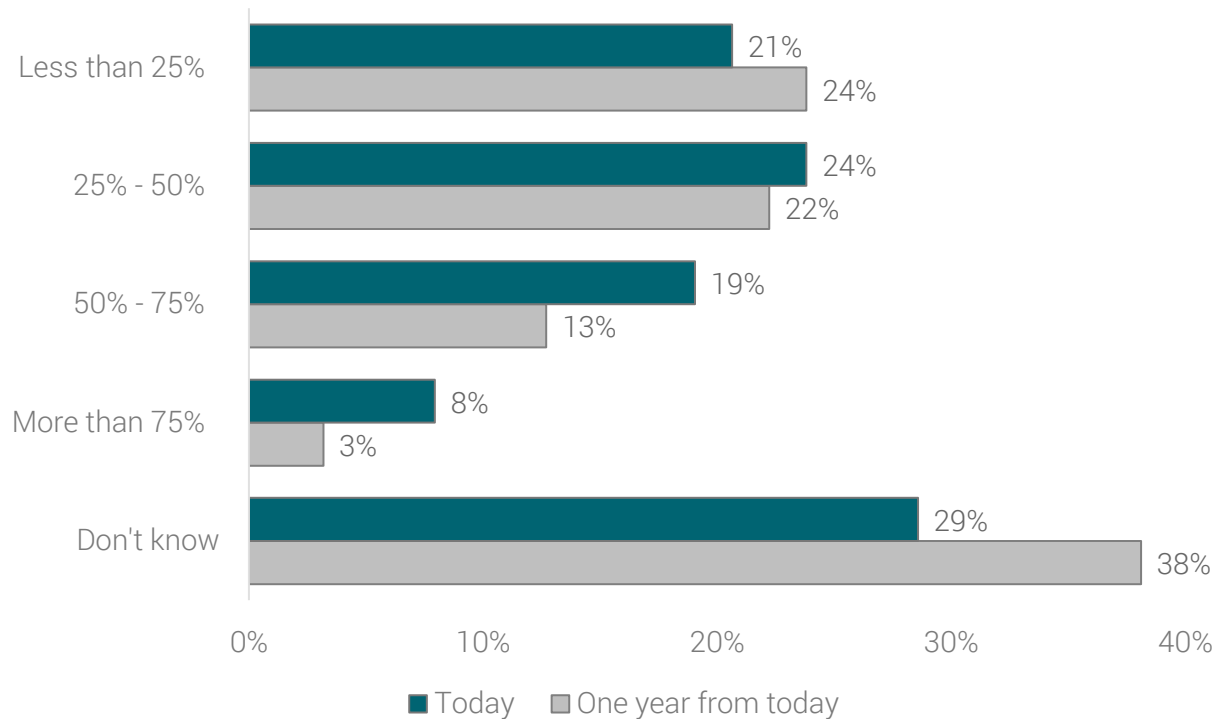
Survey open from 7/30/20 – 8/20/20 with 63 total responses

- Distributed survey to 2,971 active clients and received 56 responses, which is a 2% response rate.
 - These clients who were invited are not competitors, not affiliated with the U of U or ARUP, Lab management or Medical director/pathologist contact type
- Account Executives also sent out the survey to key clients to which we received 7 responses.

Survey contains 12 questions – 11 multiple choice & 1 comment question

ARUP SURVEY RESULTS

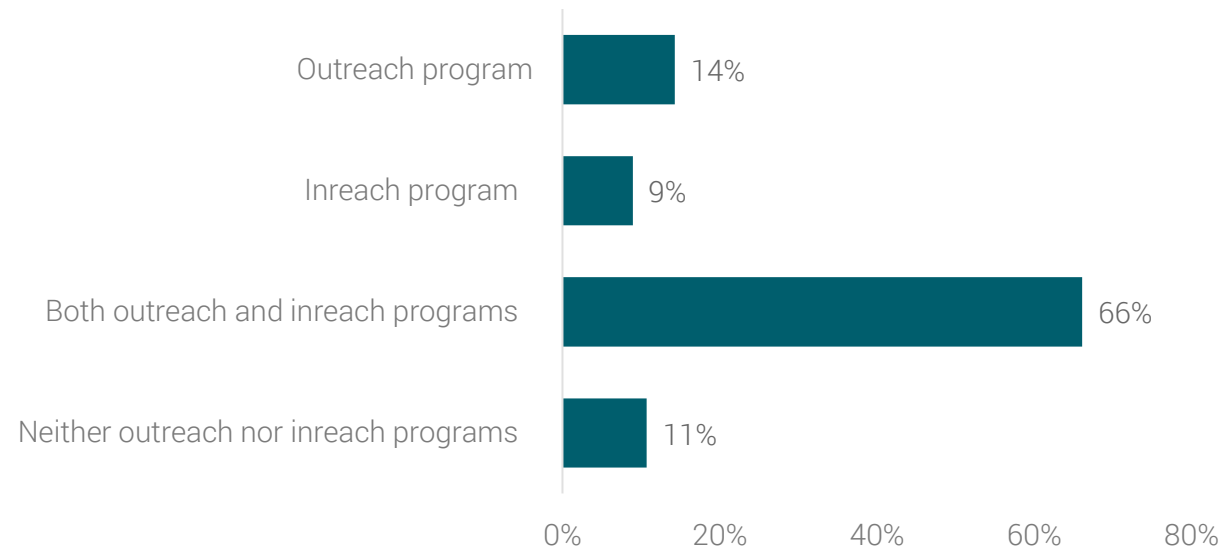
What percentage of ambulatory care do you expect will be provided in a virtual setting in your healthcare system today? One year from today?



Answer	Today		One year from today	
	Percentage	Count	Percentage	Count
Less than 25%	20.6%	13	23.8%	15
25% - 50%	23.8%	15	22.2%	14
50% - 75%	19.0%	12	12.7%	8
More than 75%	7.9%	5	3.2%	2
Don't know	28.6%	18	38.1%	24
Total	100%	63	100%	63

ARUP SURVEY RESULTS

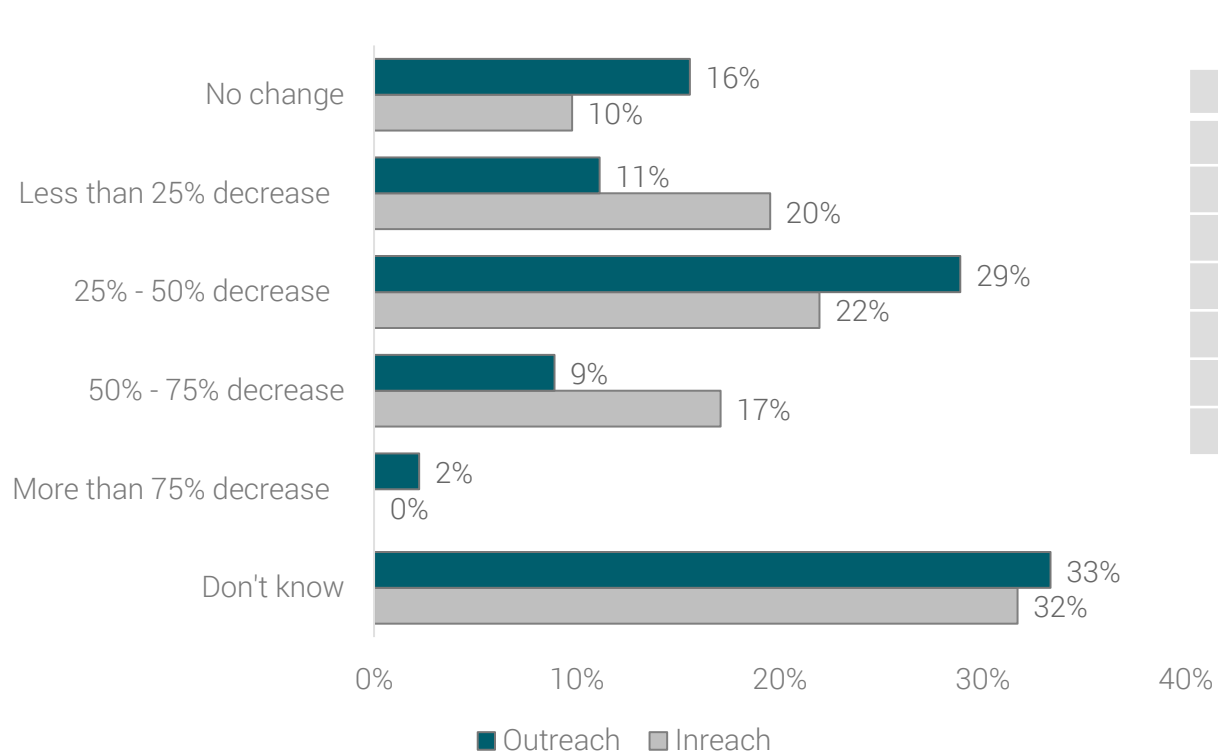
Which program(s) does your laboratory support?



Answer	Percentage	Count
Outreach program	14.3%	8
Inreach program	8.9%	5
Both outreach and inreach programs	66.1%	37
Neither outreach nor inreach programs	10.7%	6
Total	100%	56

ARUP SURVEY RESULTS

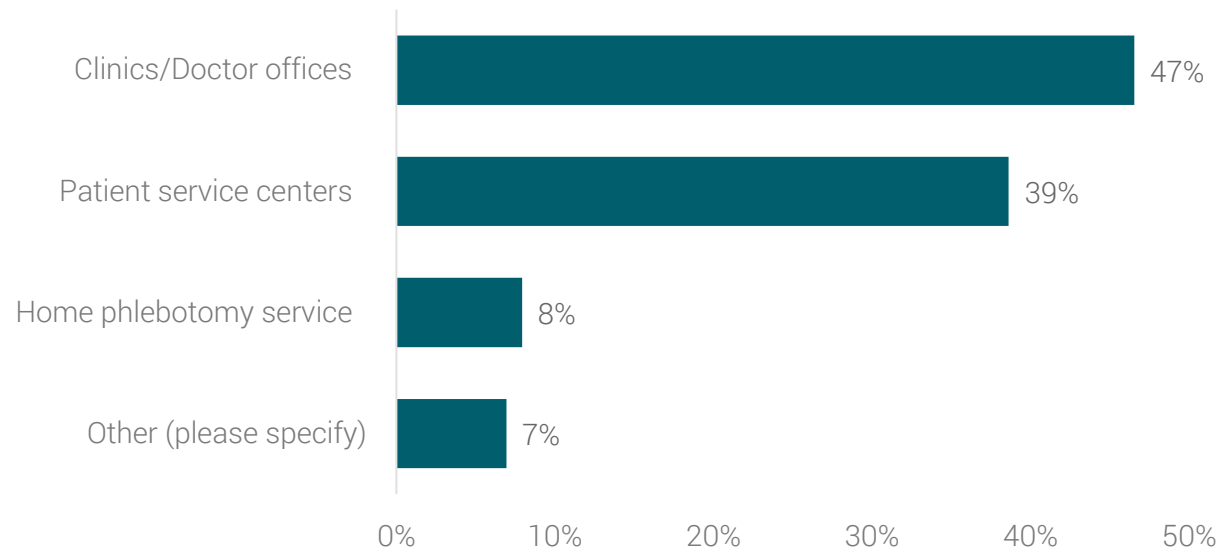
Within your outreach program, how has COVID-19 and the transition to virtual healthcare impacted revenue?
Inreach program?



Answer	Outreach		Inreach	
	Percentage	Count	Percentage	Count
No change	15.6%	7	9.8%	4
Less than 25% decrease	11.1%	5	19.5%	8
25% - 50% decrease	28.9%	13	22.0%	9
50% - 75% decrease	8.9%	4	17.1%	7
More than 75% decrease	2.2%	1	0%	0
Don't know	33.3%	15	31.7%	13
Total	100%	45	100%	41

ARUP SURVEY RESULTS

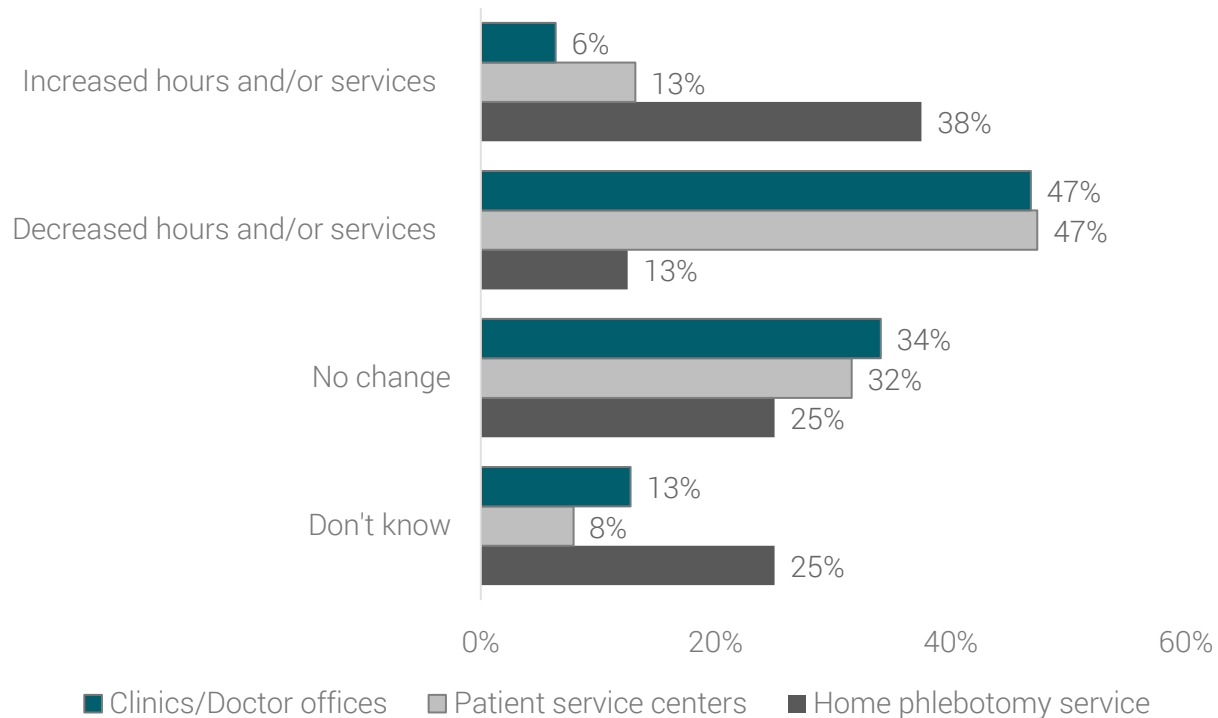
What locations are available for outpatient phlebotomy services in your healthcare system (excluding the hospital setting)? *(Select all that apply)*



Answer	Percentage	Count
Clinics/Doctor offices	46.5%	47
Patient service centers	38.6%	39
Home phlebotomy service	7.9%	8
Other (please specify)	6.9%	7
Total	100%	101

ARUP SURVEY RESULTS

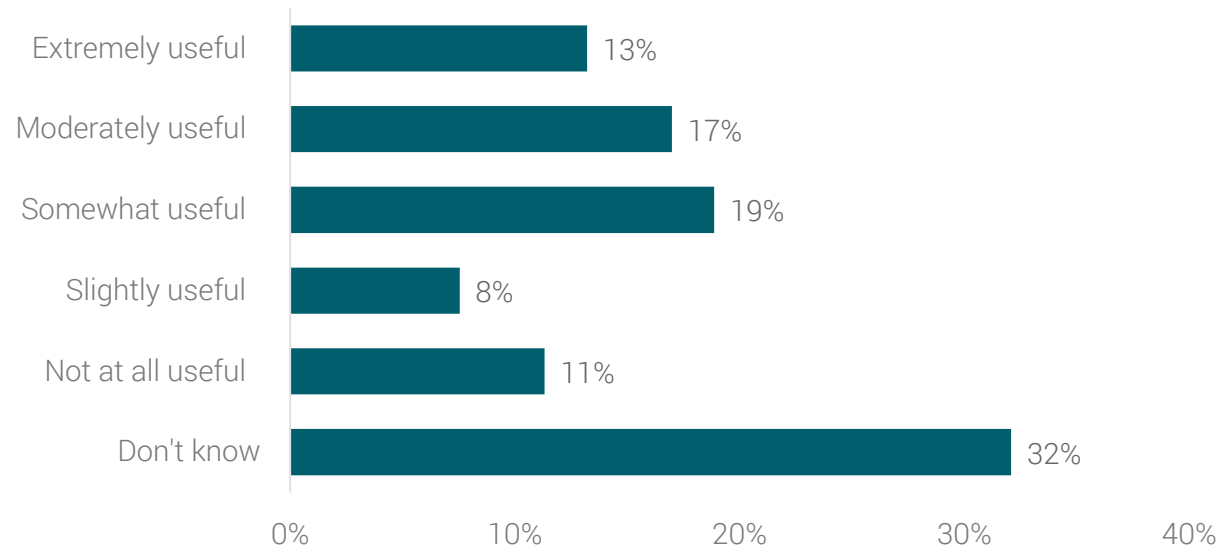
For clinics/doctor offices, how have phlebotomy hours and/or services for non-COVID-19 related testing been impacted?
 Patient service centers?
 Home phlebotomy service?



Answer	Clinics/Doctor offices		Patient service centers		Home phlebotomy service	
	Percentage	Count	Percentage	Count	Percentage	Count
Increased hours and/or services	6.4%	3	13.2%	5	37.5%	3
Decreased hours and/or services	46.8%	22	47.4%	18	12.5%	1
No change	34.0%	16	31.6%	12	25.0%	2
Don't know	12.8%	6	7.9%	3	25.0%	2
Total	100%	47	100%	38	100%	8

ARUP SURVEY RESULTS

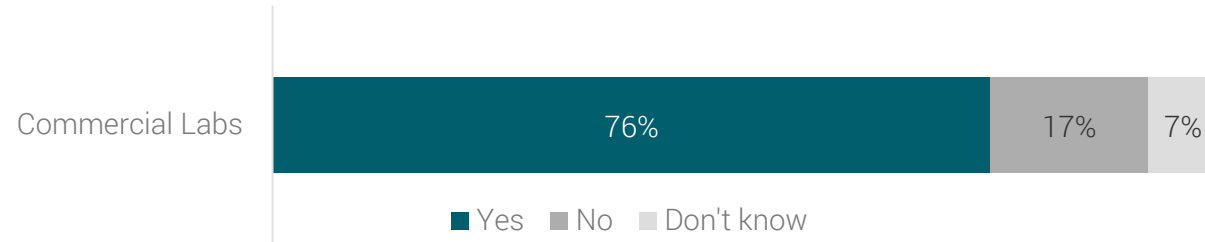
How useful would mobile home phlebotomy be if it were available?



Answer	Percentage	Count
Extremely useful	13.2%	7
Moderately useful	17.0%	9
Somewhat useful	18.9%	10
Slightly useful	7.5%	4
Not at all useful	11.3%	6
Don't know	32.1%	17
Total	100%	53

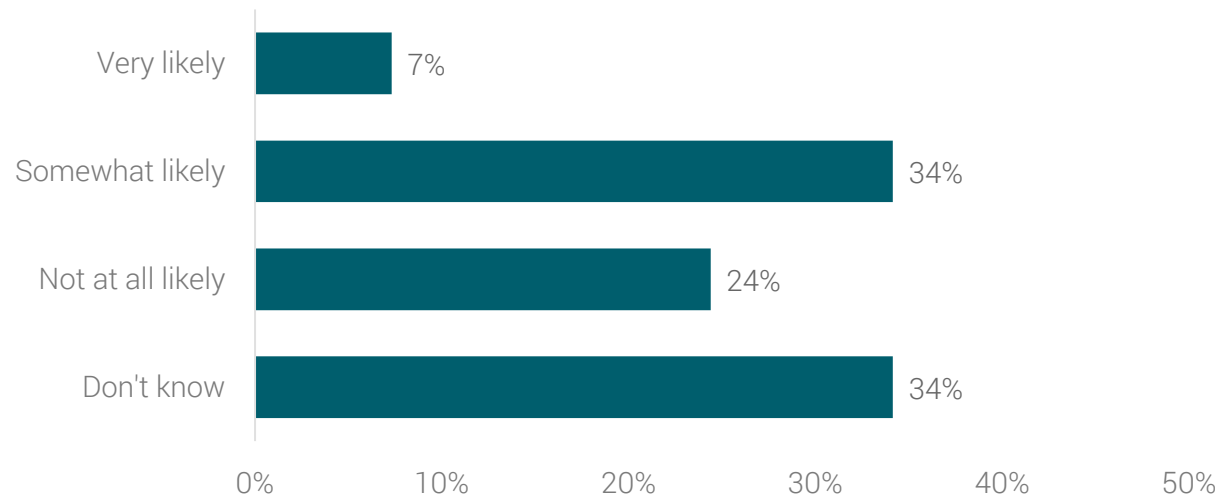
ARUP SURVEY RESULTS

Are there patient service centers from commercial laboratories in your region?



Answer	Percentage	Count
Yes	75.9%	41
No	16.7%	9
Don't know	7.4%	4
Total	100%	54

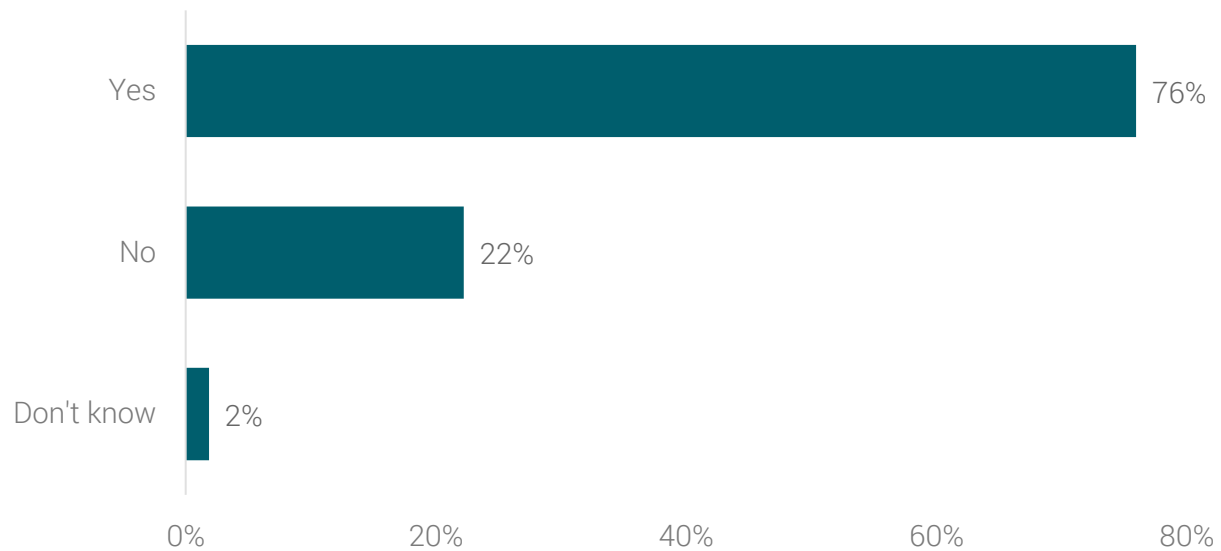
In a transition to telemedicine, how likely is it that some of your patients have gone to these commercial sites for laboratory services instead of your own laboratory?



Answer	Percentage	Count
Very likely	7.3%	3
Somewhat likely	34.1%	14
Not at all likely	24.4%	10
Don't know	34.1%	14
Total	100%	41

ARUP SURVEY RESULTS

Are outpatient phlebotomy services available in your healthcare system after hours or on weekends?

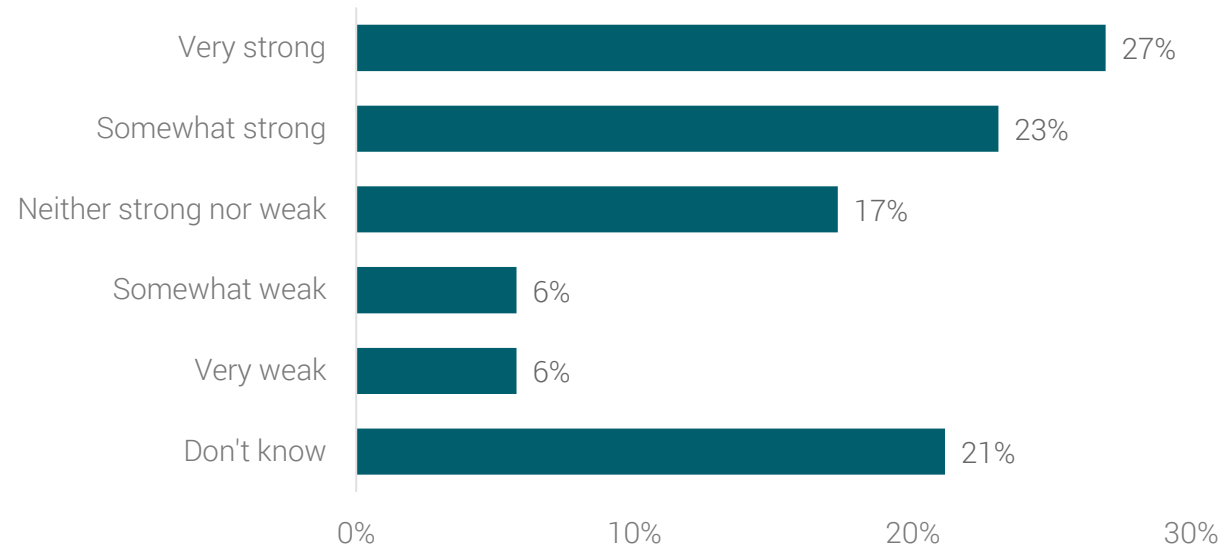


Answer	Percentage	Count
Yes	75.9%	41
No	22.2%	12
Don't know	1.9%	1
Total	100%	54

ARUP SURVEY RESULTS

If you searched online for laboratory services in your area, where would your laboratory appear on the search list?

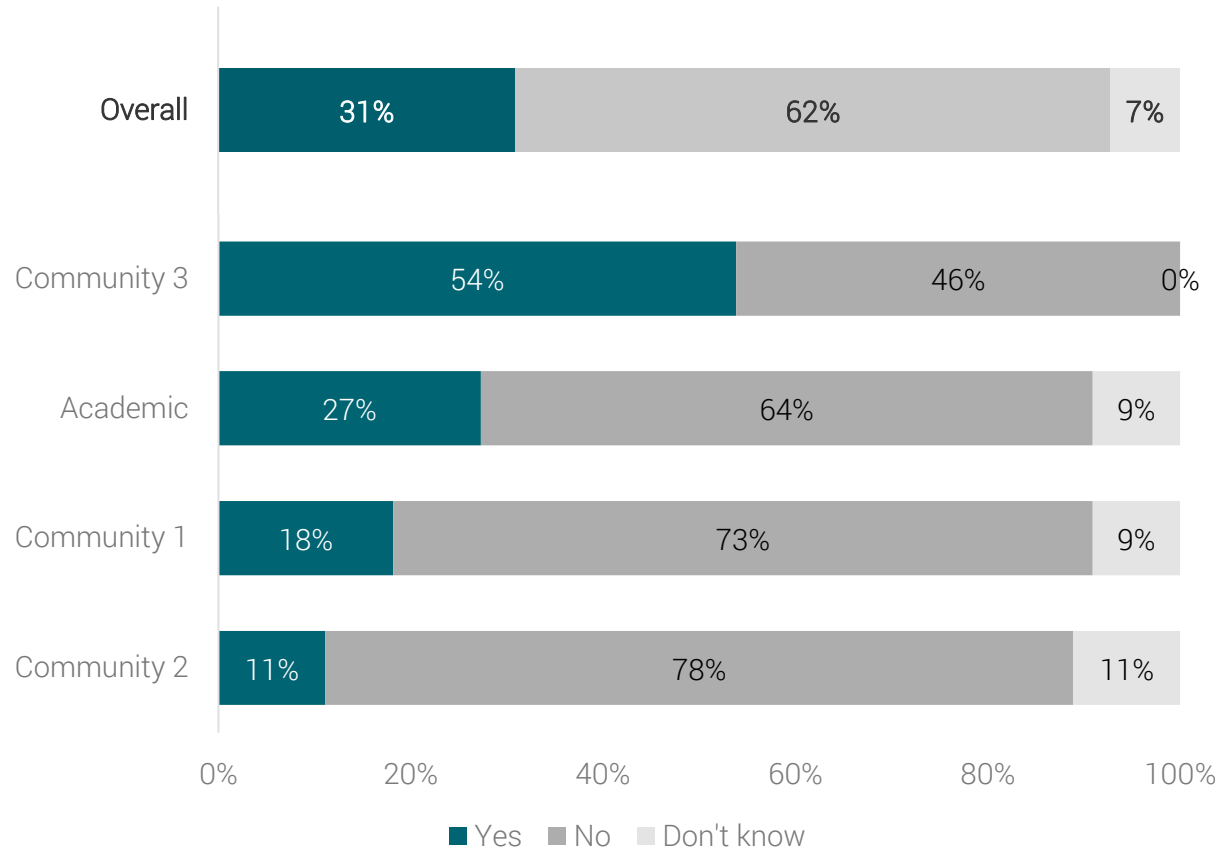
Please rate the strength of your local laboratory's web presence:



Answer	Percentage	Count
Very strong	26.9%	14
Somewhat strong	23.1%	12
Neither strong nor weak	17.3%	9
Somewhat weak	5.8%	3
Very weak	5.8%	3
Don't know	21.2%	11
Total	100%	52

ARUP SURVEY RESULTS

Do patients in your healthcare system have the ability to schedule phlebotomy appointments online? (Overall & by Facility Type)

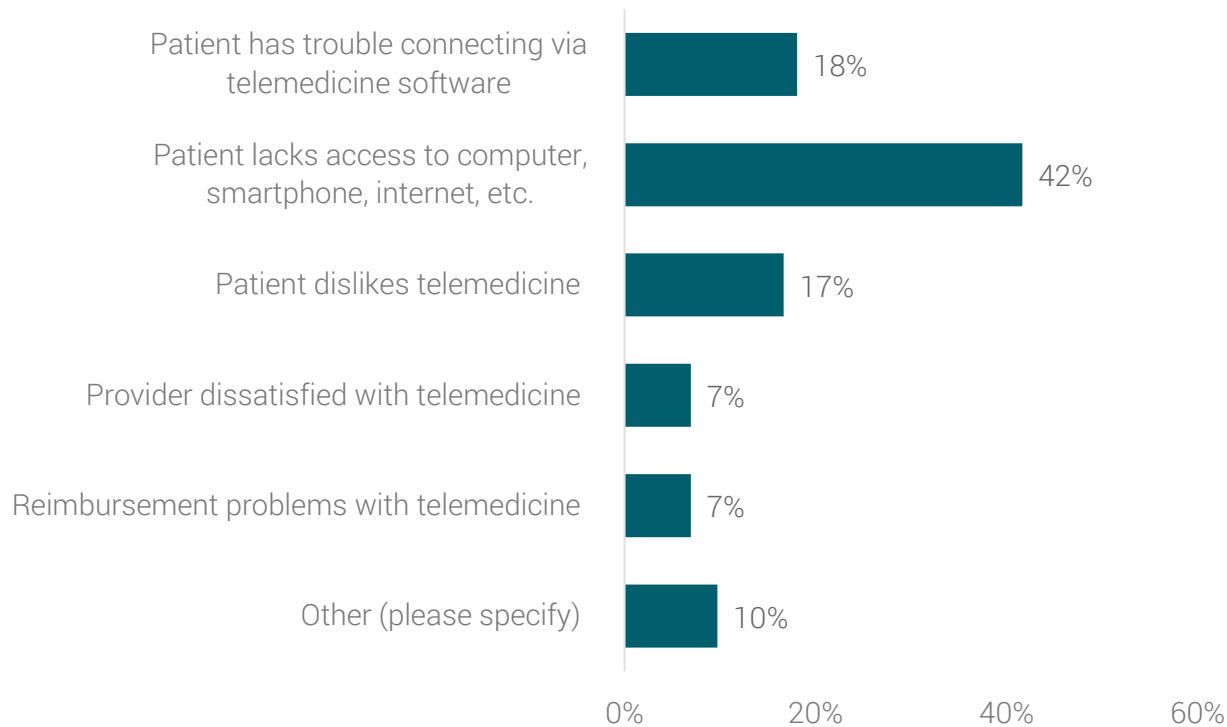


Answer	Yes	No	Don't know	Total Count
Overall	17	34	4	55
Community 3	7	6		13
Academic	3	7	1	11
Community 1	2	8	1	11
Community 2	1	7	1	9
Children's	2	3		5
Pathology Group or Clinic	2	1		3
VA/Federal		1	1	2

Community 1: <100
 Community 2: 100–249
 Community 3: 250–499
 Community 4: 500+

ARUP SURVEY RESULTS

What problems or issues have you or your patients experienced with telemedicine? *(Select all that apply)*



Answer	Percentage	Count
Patient has trouble connecting via telemedicine software	18.1%	13
Patient lacks access to computer, smartphone, internet, etc.	41.7%	30
Patient dislikes telemedicine	16.7%	12
Provider dissatisfied with telemedicine	6.9%	5
Reimbursement problems with telemedicine	6.9%	5
Other (please specify)	9.7%	7
Total	100%	72

Blockbuster versus Netflix

Options for telemedicine patients needing lab tests

CHALLENGES AND SOLUTIONS

Hospital



Doctor office



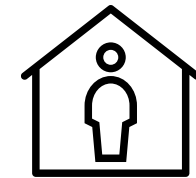
Patient Service Center



Retail



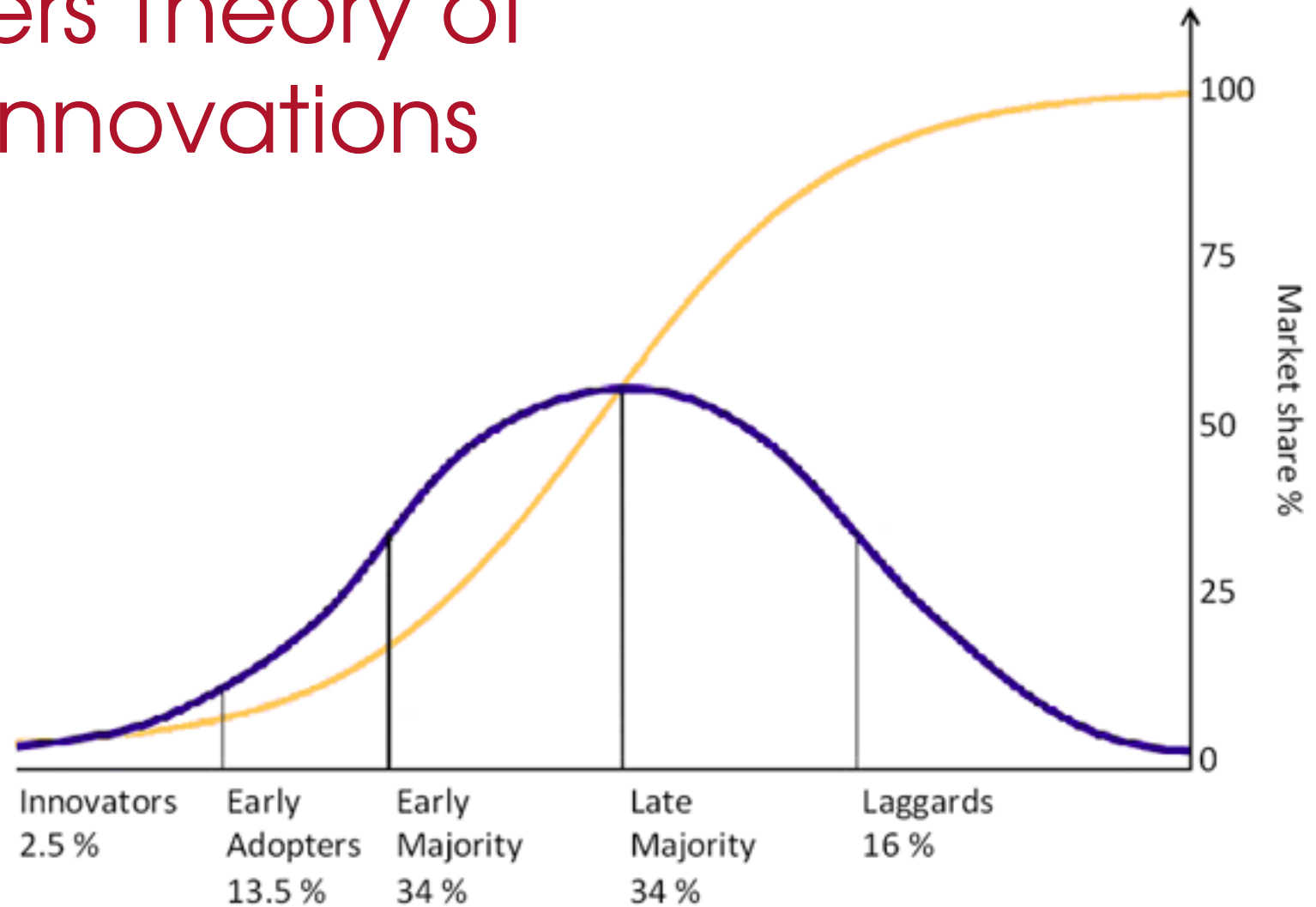
Home Collection



Less Convenient

More Convenient

Everett Rogers Theory of Diffusion of Innovations



a brave new world....



**Not all heroes
wear capes.**

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A nonprofit enterprise of the University of Utah and its Department of Pathology

<https://digital.hbs.edu/platform-digit/submission/blockbuster-its-failure-and-lessons-to-digital-transformers/>

<https://hbr.org/2011/04/how-i-did-it-blockbusters-former-ceo-on-sparring-with-an-activist-shareholder>

<https://www.forbes.com/sites/gregsatell/2014/09/05/a-look-back-at-why-blockbuster-really-failed-and-why-it-didnt-have-to/#127ce9401d64>