

Is Telehealth as Effective as In-Person Care?

Evidence from a Rapid Literature Review

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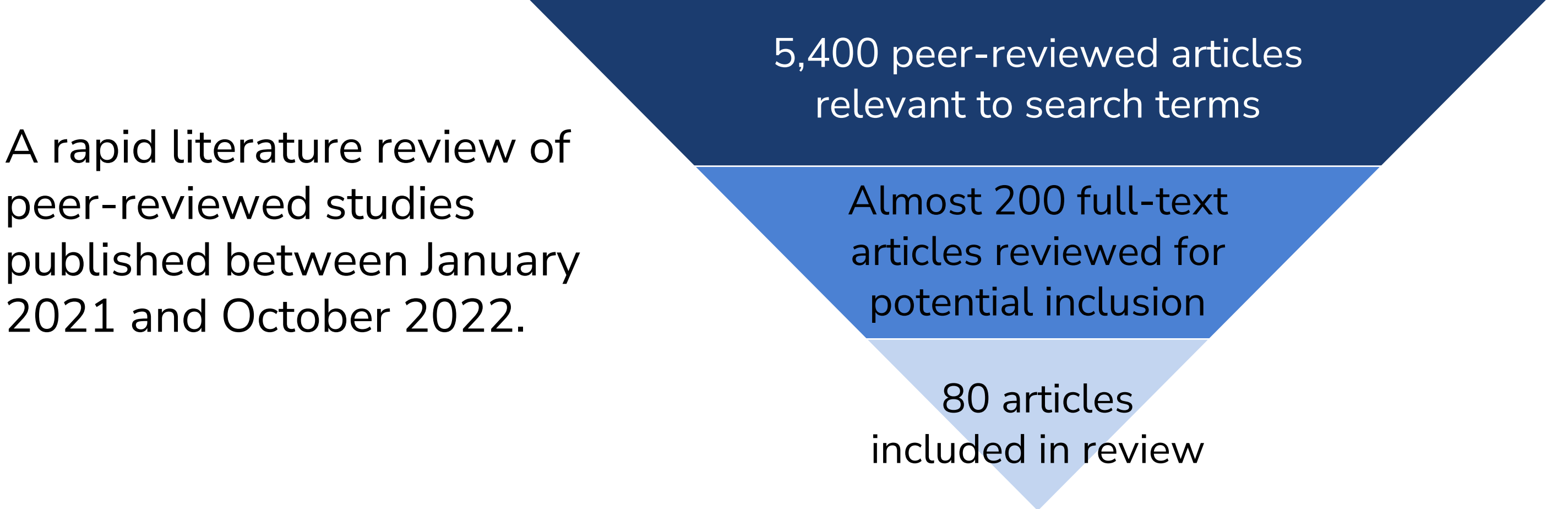
Background

The use of telehealth by patients and providers has increased dramatically over the last decade, spurred by technological advancements, patient and provider preference, and, most recently, by the COVID-19 pandemic. Policymakers, payers, and providers need to understand the effectiveness of telehealth to inform new policies and implementation.

Research Questions

1. What is the effectiveness of services provided via different telehealth modalities as compared with services provided in-person?
2. What is the effectiveness of hybrid models of telehealth in which health services are provided to patients both in-person and via telehealth, as compared with services provided using telehealth or in-person visits alone?
3. To what extent have studies of telehealth services assessed disparities in access along the lines of race, ethnicity, age, insurance coverage type, language, digital literacy, socio-economic status, or geography?

Study Design



Inclusion Criteria

- Telehealth services between providers and patients
- Studies with a comparison group
- Services that could be equivalent to in-person services
- Services delivered by billable providers
- Studies addressed specified modalities: live video, telephone, email, text, and chat, e-visit, store and forward

Funding

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Principal Findings

Overview of Evidence of Effectiveness by Modality, Outcome, and Disease and Condition 2021-2022

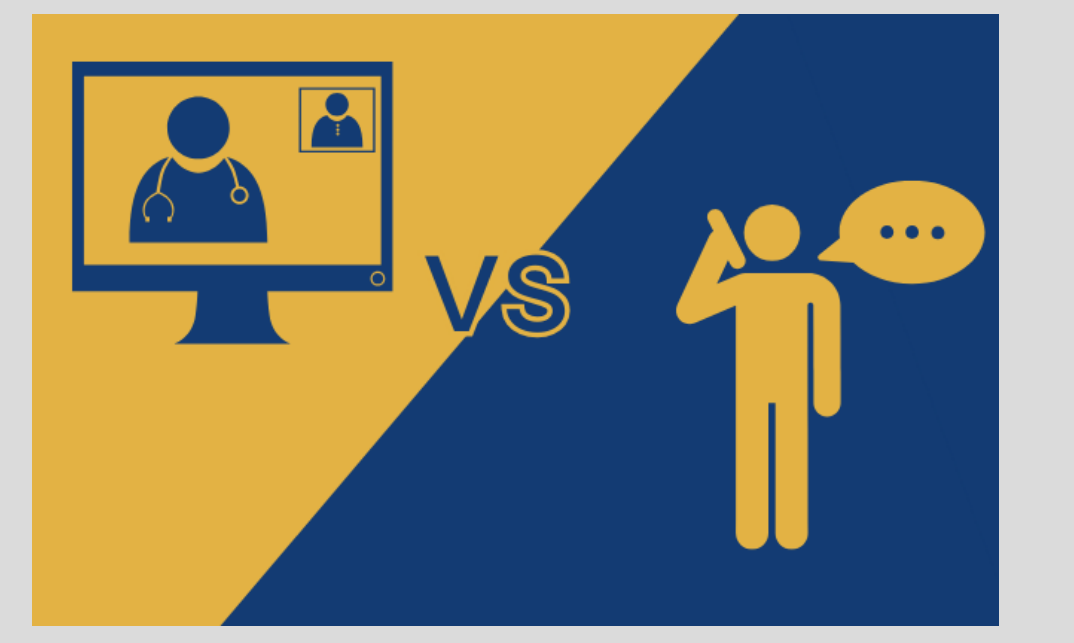
Health Outcomes					
	Effective – Clear and Convincing	Effective – Preponderance of Evidence	Effective – Limited Evidence	Inconclusive Evidence	Insufficient Evidence
Live Video	<ul style="list-style-type: none"> • Orthopedics • Chronic conditions • Behavioral health, including PTSD and depression and anxiety 	<ul style="list-style-type: none"> • Multiple conditions • Weight management 			<ul style="list-style-type: none"> • Surgical care • Ophthalmology • Reproductive Health Infectious Disease • Examinations for Respiratory Illnesses
Telephone			<ul style="list-style-type: none"> • Behavioral health 		<ul style="list-style-type: none"> • Reproductive health
Email, Text, and Chat			<ul style="list-style-type: none"> • Eating disorder management 		
E-Visits			<ul style="list-style-type: none"> • Dermatology • Multiple conditions 		
Store and Forward			<ul style="list-style-type: none"> • Dermatology • Ophthalmology 	<ul style="list-style-type: none"> • Wound care 	
Hybrid Care			<ul style="list-style-type: none"> • Reproductive health 		<ul style="list-style-type: none"> • Chronic conditions • Behavioral health

Process of Care					
	Effective – Clear and Convincing	Effective – Preponderance of Evidence	Effective – Limited Evidence	Inconclusive Evidence	Insufficient Evidence
Live Video		<ul style="list-style-type: none"> • Orthopedics • Surgical care 	<ul style="list-style-type: none"> • Primary care visits • Examination of common respiratory illnesses • Neuropsychology and cognitive assessments • Diabetes management 	<ul style="list-style-type: none"> • Antibiotic prescribing 	<ul style="list-style-type: none"> • Other specialty care
Telephone					<ul style="list-style-type: none"> • Otolaryngology
Email, Text, and Chat					
E-Visits			<ul style="list-style-type: none"> • Antibiotic prescribing 	<ul style="list-style-type: none"> • Multiple conditions 	
Store and Forward					
Hybrid Care					<ul style="list-style-type: none"> • Chronic conditions • Primary care

Utilization of Other Health Care Services					
	Effective – Clear and Convincing	Effective – Preponderance of Evidence	Effective – Limited Evidence	Inconclusive Evidence	Insufficient Evidence
Live Video		<ul style="list-style-type: none"> • Infectious disease 	<ul style="list-style-type: none"> • Chronic conditions • Orthopedics • Surgical Care 	<ul style="list-style-type: none"> • Ophthalmology 	<ul style="list-style-type: none"> • Gastroenterology • Reproductive Health
Telephone					<ul style="list-style-type: none"> • Wound care
Email, Text, and Chat				<ul style="list-style-type: none"> • Multiple conditions 	
E-Visits				<ul style="list-style-type: none"> • Multiple Conditions 	
Store and Forward					
Hybrid Care					<ul style="list-style-type: none"> • Behavioral health

Spotlight: Live video vs telephone

There is preponderance of evidence that the impact of behavioral health services delivered by live video on health outcomes is similar to the impact of services delivered by telephone consultation.



There is insufficient evidence that other health care services delivered by live video are comparable to services delivered by telephone consultation.

Disparities

Only a handful of reviewed studies included information about the effectiveness of telehealth by patient and community characteristics, and generally these were limited to sex, age, and geography. This body of literature provides **insufficient evidence** as to whether there are disparities in telehealth effectiveness varies across patients and communities whose demographic or socio-economic characteristics differ.

Conclusion

- Evidence of effectiveness varies by condition and modality.
- Substantial variation in the amount and rigor of research across modalities and conditions
 - Generalization is challenging
 - Evidence of effectiveness, generally, for live video
 - For other modalities, only conclusive evidence exists for health outcomes

Implications for Policy and Practice

The literature examining the effectiveness of services provided via telehealth as compared with in-person services is rapidly evolving and growing. Health care practice patterns are continuing to evolve and there is additional integration of telehealth combined with less distinction between modalities. Telehealth is also being increasingly used as additional care instead of as a substitute for in-person care, with implications on health care expenditures.