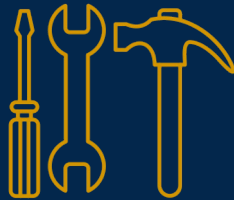


Presenting for Impact at AcademyHealth



Perspective | Tools | Strategy

May 23rd, 2024

ANDREW M. IBRAHIM MD, MSc

Maud T. Lane Research Prof. of Surgery, Architecture & Urban Planning
Vice Chair, Health Services Research, Department of Surgery
Director, Health & Design Fellowship
Co-Director, Center for Healthcare Outcomes & Policy
University of Michigan

Board of Directors, AcademyHealth

Former Chief Medical Officer & Senior Principal, HOK Architects



Unusual Combination



SURGERY



RESEARCH





505
Publications

\$35.4m

NIH Funding
Active



13 R01 Funded
Faculty

81

Faculty,
Fellows
& Staff



CHOP 2023



Center for Healthcare
Outcomes & Policy
University of Michigan



5 New Director
Roles



52 Gov't & Policy Groups
Citing Our Work



129 Academic
Journals



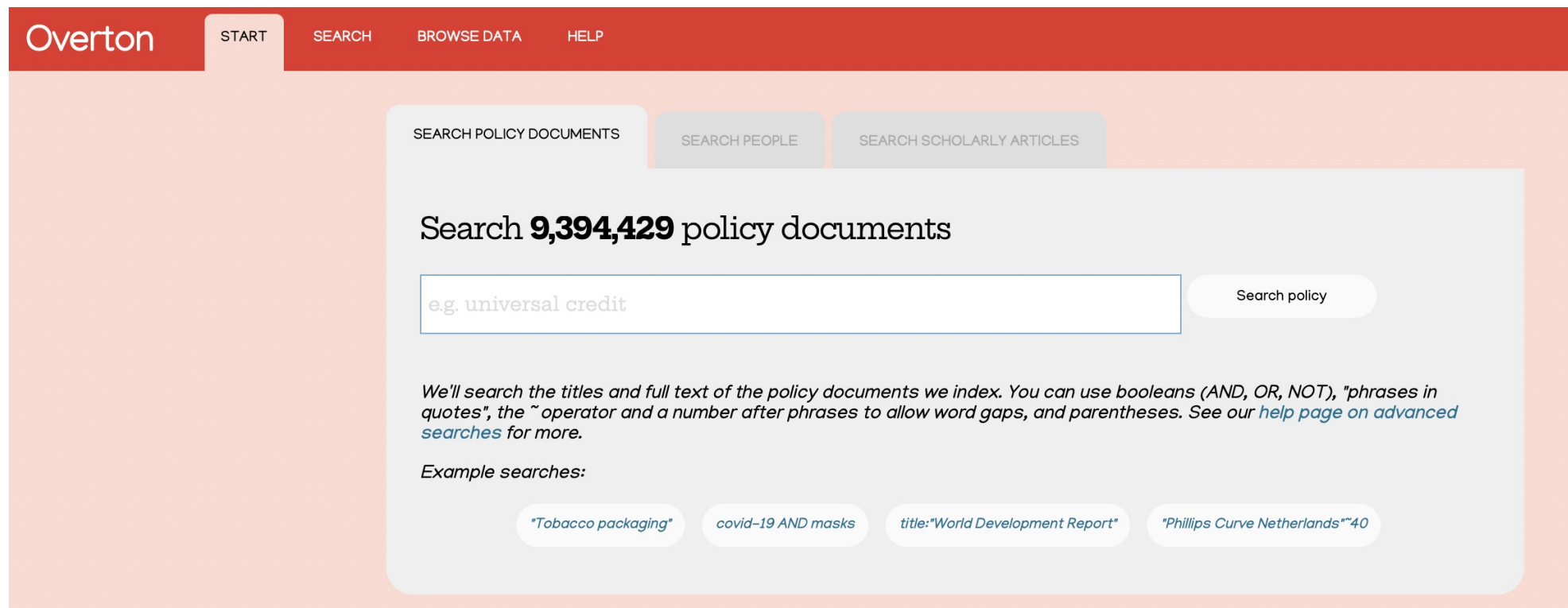
3rd Year of CHOP
Summer Bootcamp



21 Local Businesses
Supported



Our Work Informs Policy

A screenshot of the Overton search interface. The top navigation bar is red with the 'Overton' logo and links for 'START', 'SEARCH', 'BROWSE DATA', and 'HELP'. Below this, there are three tabs: 'SEARCH POLICY DOCUMENTS' (active), 'SEARCH PEOPLE', and 'SEARCH SCHOLARLY ARTICLES'. The main search area is light gray and contains the text 'Search 9,394,429 policy documents'. Below this is a search input field with the placeholder text 'e.g. universal credit' and a 'Search policy' button. A paragraph of text explains the search capabilities: 'We'll search the titles and full text of the policy documents we index. You can use booleans (AND, OR, NOT), "phrases in quotes", the ~ operator and a number after phrases to allow word gaps, and parentheses. See our [help page on advanced searches](#) for more.' Below this, it says 'Example searches:' followed by four example search terms in rounded rectangles: '*Tobacco packaging*', 'covid-19 AND masks', 'title:"World Development Report"', and '"Phillips Curve Netherlands"~40'.

Overton

START SEARCH BROWSE DATA HELP

SEARCH POLICY DOCUMENTS SEARCH PEOPLE SEARCH SCHOLARLY ARTICLES

Search **9,394,429** policy documents

e.g. universal credit Search policy

We'll search the titles and full text of the policy documents we index. You can use booleans (AND, OR, NOT), "phrases in quotes", the ~ operator and a number after phrases to allow word gaps, and parentheses. See our [help page on advanced searches](#) for more.

Example searches:

Tobacco packaging covid-19 AND masks title:"World Development Report" "Phillips Curve Netherlands"~40



Policy Reach of our Work



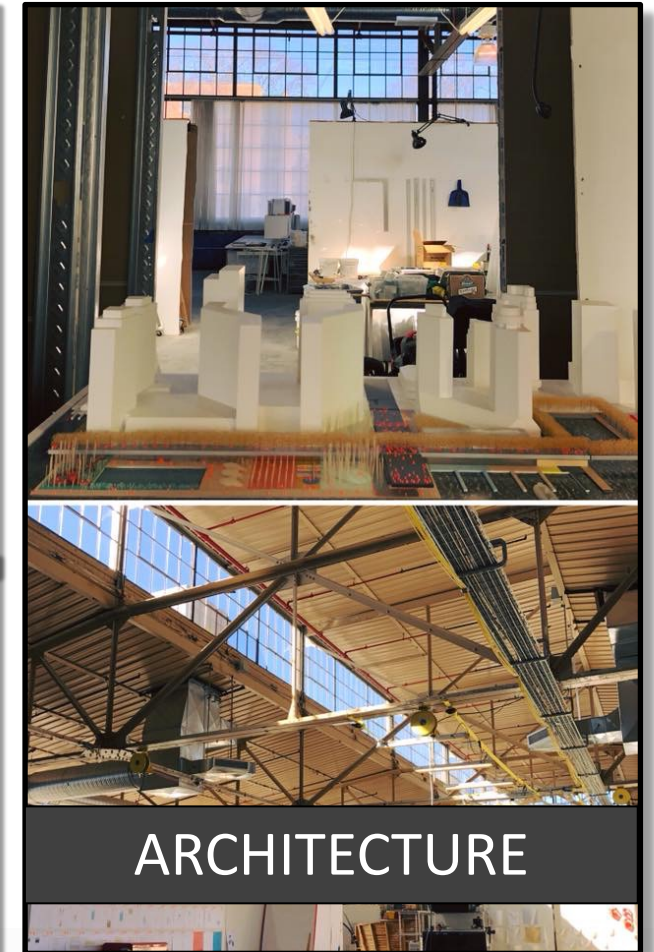
CHOP Research Citations in Government Policy & Think Tanks, 2021-2023



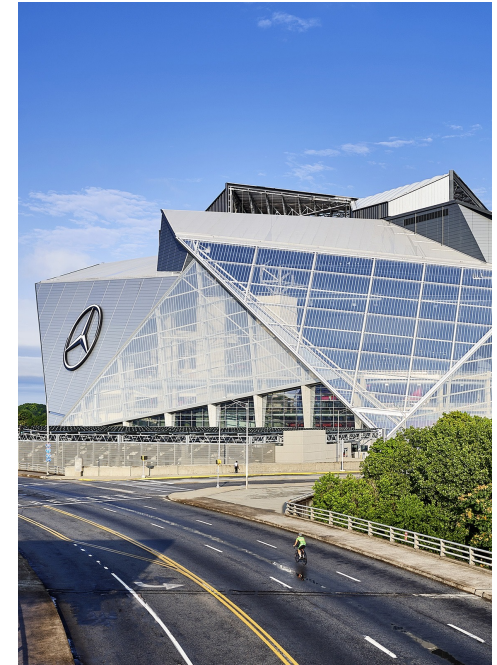
CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

Unusual Combination



Chief Medical Officer, Global Design & Architecture Firm



BIRTH OF THE VISUAL ABSTRACT

JULY 2016

London Trauma after establishing an
inclusive, coordinated trauma system

Access to Trauma
Specialist on First Arrival



16% ➡ 84%

Involvement of senior
clinicians <30 min



38% ➡ 92%

Improved Survival in
critically ill (ISS>35)



69% ➡ 89%

Cole et al. *Ann Surg.* July 2016.

ANNALS OF SURGERY
A Monthly Review of Surgical Science Since 1885

@AnnalsofSurgery | Copyright © 2016 Wolters Kluwer Health, Inc. All rights reserved. Published by Lippincott Williams & Wilkins, Inc.



What is a Visual Abstract?

“Visual representation of the main findings typically found in the abstract portion of a research article.”

Ibrahim et al. Ann Surg. 2017. Dec;266(6):46-48.



Bevacizumab and Lomustine for Progressive Glioblastoma

PHASE 3 INTERNATIONAL MULTICENTER RANDOMIZED TRIAL

Lomustine + Bevacizumab

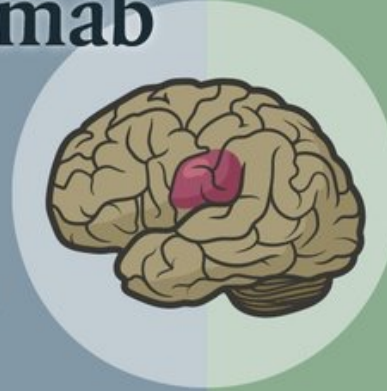


N=288

Lomustine



N=149



9.1 mo

Median overall survival:
P=0.65

8.6 mo

4.2 mo

Median progression-free
survival: P<0.001

1.5 mo

64%

Grade 3–5 adverse events

38%

The NEW ENGLAND JOURNAL of MEDICINE

Wick et al. 2017



The NEW ENGLAND
JOURNAL of MEDICINE

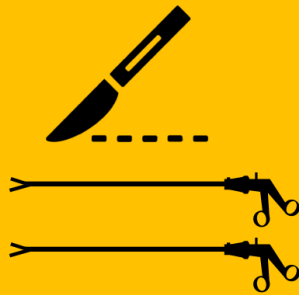


CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

Survey of 1,033 Surgeons: Barriers to Developing Surgical Scientists...

Pressure to be
Clinically Productive



88%
(Percent of Surgeons)

Excessive
Administrative Duties



64%
(Percent of Surgeons)

Concern about
Work-Life Balance



60%
(Percent of Surgeons)

Keswani et al. *Ann Surg.* Sept 2016.

ANNALS OF SURGERY
A Monthly Review of Surgical Science Since 1885

Copyright © 2016 Wolters Kluwer Health, Inc. All rights reserved. Published by Lippincott Williams & Wilkins, Inc.



Toward Patient-Centered Hospital Design: What Can Airports Teach Us?

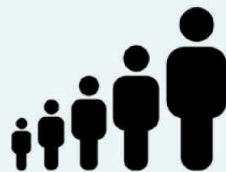
Elements of Airport Process Design that Could be Adopted by Hospitals



Online Check-In



Self Check-In Kiosks



Fast-Track Entry
for Frequent Users



User-Friendly
Wayfinding Signage



Mobile Phone
Time Updates

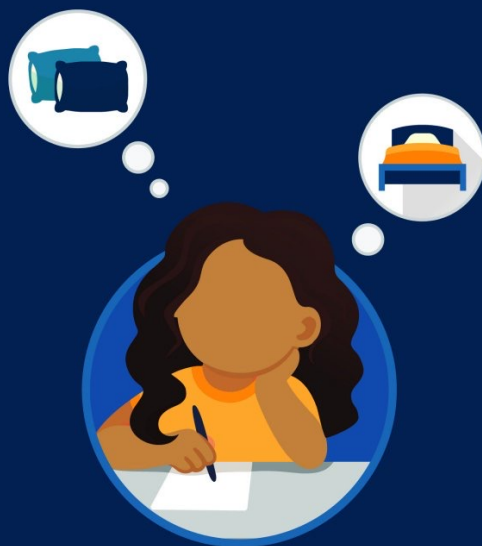
Mullangi et al. *Ann Intern Med.*
May 2017

Annals of Internal Medicine®



Zzzzzz.... SLEEPY KIDS

MOST STUDENTS NEED MORE SLEEP



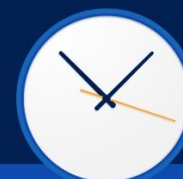
6 OUT OF 10
MIDDLE SCHOOLERS
DON'T GET ENOUGH SLEEP



7 OUT OF 10
HIGH SCHOOLERS
DON'T GET ENOUGH SLEEP

SLEEP IS CRITICAL TO PREVENT

- DIABETES
- OBESITY
- POOR MENTAL HEALTH
- INJURIES
- ATTENTION OR BEHAVIORAL PROBLEMS



Z z z

KIDS AGED 6–12
NEED **9–12 HOURS**

TEENS AGED 13–18
NEED **8–10 HOURS**

MIDDLE SCHOOLERS: 2015 DATA FROM 9 STATES
HIGH SCHOOLERS: 2015 NATIONWIDE DATA

Wheaton et al. *MMWR*.
Jan 2018 (goo.gl/ddpQ75)



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention



Toward Patient-Centered Hospital Design: What Can Airports Teach Us?

Elements of Airport Process Design that Could be Adopted by Hospitals

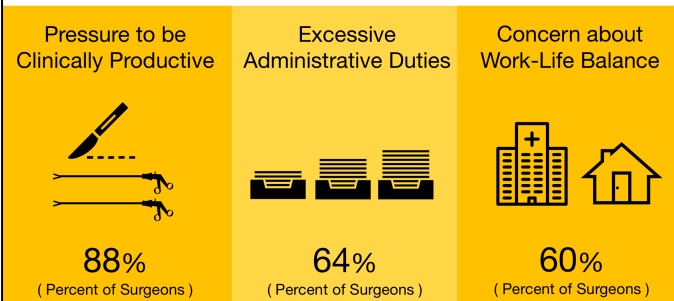


Mullangi S, Ibrahim AM, Chopra V.
Annals Intern Med. May 2017

Annals of Internal Medicine



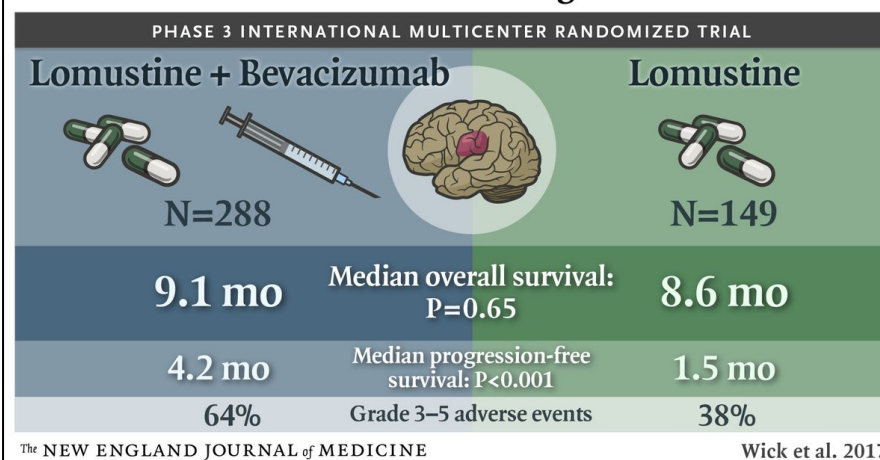
Survey of 1,033 Surgeons: Barriers to Developing Surgical Scientists...



Keswani et al. *Ann Surg.* Sept 2016.

ANNALS OF SURGERY
Copyright © 2016 Wolters Kluwer Health, Inc. All rights reserved. Published by Lippincott Williams & Wilkins, Inc. A Monthly Review of Surgical Science Since 1885

Bevacizumab and Lomustine for Progressive Glioblastoma



Four
studies in
1 minute...

(Movie Trailer?)



How Do you Find A #VisualAbstract?



The screenshot shows the Twitter profile of the New England Journal of Medicine (@NEJM). The profile includes the NEJM logo, a bio stating it is the world's leading medical journal, and statistics: 13.8K tweets, 366 following, 464K followers, 609 likes, and 1 list. A pinned tweet from @NEJM dated Dec 1 discusses a study on Erenumab for episodic migraine. The tweet includes a visual abstract titled 'A Controlled Trial of Erenumab for Episodic Migraine' which is a multicenter, randomized, double-blind, phase 3 trial. The abstract compares three groups: Erenumab 70 mg (N=317), Erenumab 140 mg (N=319), and Placebo (N=319). The reduction in mean migraine days per month (baseline to months 4-6) is 3.2 days for Erenumab 70 mg, 3.7 days for Erenumab 140 mg, and 1.8 days for Placebo.

NEJM @NEJM

The New England Journal of Medicine (NEJM.org) is the world's leading medical journal and website.

📍 Boston, MA

🌐 NEJM.org

📺 1.09M Vine Loops

📅 Joined March 2009

[Tweet to NEJM](#)

1000 Followers you know

Tweets **Tweets & replies** **Media**

📌 Pinned Tweet

NEJM @NEJM · Dec 1

Erenumab administered subcutaneously 1x/mo reduces #migraine frequency & effects of migraine on daily functioning. Full study: nej.md/2AfyFUv #VisualAbstract

A Controlled Trial of Erenumab for Episodic Migraine

MULTICENTER, RANDOMIZED, DOUBLE-BLIND, PHASE 3 TRIAL

Group	N	Reduction in mean migraine days/mo (baseline to months 4–6)
Erenumab, 70 mg	N=317	3.2 days
Erenumab, 140 mg	N=319	3.7 days
Placebo	N=319	1.8 days



Searchable Database...

**Resident 360**

Rotation Prep

Learning Lab

Resident Lounge

Career

Student Corner

Discussions

 Log In

 Create Account

 Learning Lab > NEJM Visual Abstracts[Back to Learning Lab Home](#)

Classification and Personalized Prognosis in Myeloproliferative Neoplasms
NEJM VISUAL ABSTRACT
PHASE 2, DOUBLE-BLIND, RANDOMIZED, CONTROLLED TRIAL
2035 Patients with myeloproliferative neoplasm
1321 With essential thrombocythemia
356 With polycythemia
Classification and prognostic models created and validated with external validation
The NEW ENGLAND JOURNAL of MEDICINE

Selective Tyrosine Kinase 2 Inhibition in Psoriasis
NEJM VISUAL ABSTRACT
PHASE 2, DOUBLE-BLIND, RANDOMIZED, CONTROLLED TRIAL
267 Patients with moderate-to-severe plaque psoriasis
Placebo 3 mg every other day 3 mg once daily 3 mg twice daily
Reduction in severity at 12 weeks 7% 9% 39% 69%
P = 0.49 P < 0.001 P < 0.001
≥3 mg daily of TYK2 inhibitor improved clearance
The NEW ENGLAND JOURNAL of MEDICINE

Restrictive vs. Liberal Transfusion for Cardiac Surgery
NEJM VISUAL ABSTRACT
RANDOMIZED, OPEN-LABEL, NONINFERIORITY TRIAL
5243 Patients at risk of death
Restrictive Transfusion Liberal Transfusion
Death, MI, stroke, or renal failure at 6 mo 17.35% (402/2317)
Risk difference, 0.22%; 95% CI, -1.95 to 2.39
P = 0.006 for noninferiority (Noninferiority margin, 3 percentage points)
The NEW ENGLAND JOURNAL of MEDICINE

Fingolimod vs. Interferon Beta-1a in Pediatric MS
NEJM VISUAL ABSTRACT
RANDOMIZED, PHASE 3 TRIAL IN PATIENTS 10-17 YR OF AGE
Fingolimod (oral, 0.5 mg/day) Interferon Beta-1a (intramuscular)
0.12 Relapses (average 13.7/mo) 0.6 (average 13.7/mo)
N = 107 N = 107
P = 0.001; 95% CI, 0.36-0.74; P < 0.001
18 Serious Adverse Events 8
The NEW ENGLAND JOURNAL of MEDICINE

Coronary CT Angiography and 5-Year Risk of MI
NEJM VISUAL ABSTRACT
OPEN-LABEL, PARALLEL-GROUP, MULTICENTER, RANDOMIZED, CONTROLLED TRIAL
Standard Care + Coronary CTA
N = 2073 4146 Patients with stable chest pain
N = 2073
Primary end point: 5-year risk of MI
P = 0.001
The NEW ENGLAND JOURNAL of MEDICINE

Small Molecule Ibudilast in Progressive MS
NEJM VISUAL ABSTRACT
PHASE 2, MULTICENTER, RANDOMIZED, DOUBLE-BLIND, PARALLEL-GROUP TRIAL
Ibudilast (N = 129)
96-week
255 patients with MS
Change in brain parenchymal fraction (brain atrophy) (P = 0.04)
P = 0.0010
The NEW ENGLAND JOURNAL of MEDICINE



Searchable Database...

NEJM Resident 360 | Rotation Prep | Learning Lab | Resident Lounge | Career | Student Corner | Discussions | Log In | Create Account

Learning Lab > NEJM Visual Abstracts

[Back to Learning Lab Home](#)

Classification and Personalized Prognosis in Myeloproliferative Neoplasms

NEJM Visual Abstracts from 69 MYELOID CANCER

2035 Patients with myeloproliferative neoplasms

Classification and prognostic models created and validated with existing genomic subgroups identified with distinct clinical phenotypes

NEW ENGLAND JOURNAL OF MEDICINE

Selective Tyrosine Kinase 2 Inhibition in Psoriasis

NEJM Visual Abstracts

PHASE 2, DOUBLE-BLIND, RANDOMIZED, CONTROLLED TRIAL

267 Patients with moderate-to-severe plaque psoriasis

Placebo 3 mg every other day 3 mg once daily 3 mg twice daily

7% 9% 39% 69%

23 mg daily of TYK2 inhibitor improved clearance of psoriasis at 12 weeks

NEW ENGLAND JOURNAL OF MEDICINE

Fingolimod vs. Interferon Beta-1a in Pediatric MS

NEJM Visual Abstracts

RANDOMIZED, PHASE 3 TRIAL IN PATIENTS 18-17 YR OF AGE

Fingolimod (oral, 0.5 mg/day) Interferon beta-1a (intramuscular, 600 µg weekly)

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

18 Serious Adverse Events 8

Coronary CT Angiography and 5-Year Risk of Myocardial Infarction

NEJM Visual Abstracts

STANDARD CARE + CORONARY CTA

Standard Care + Coronary CTA

8

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™

Search

[Advanced Search](#)

Morbidity and Mortality Weekly Report (MMWR)

CDC > MMWR

MMWR Visual Abstracts

Click the thumbnails for larger version for downloading or print link under the thumbnail to read the full MMWR report.

COVID-19 Reports +

Early Release

Publications +

For Authors

About MMWR +

Subscriptions

Free Continuing Education

MMWR | Screen and Intervene to Reduce Single Drinking

4 in 5 adults who drink alcohol at least 4 times a week are at risk of alcohol-related problems

MMWR | Lung Cancer Screening Saves Lives

7.6% reduction in lung cancer deaths

MMWR | Tobacco Use in Movies

120% increase in tobacco use in movies

MMWR | Silicosis in Stone Fabrication Workers

10% increase in silicosis cases

JAMA Network

Search All Enter Search Term

JAMA Network

- ☐ JAMA Oncology (63)
- ☐ JAMA Internal Medicine (32)
- ☐ JAMA Psychiatry (22)
- ☐ JAMA Pediatrics (22)
- [\[+\] More](#)

Filters

- ☒ Visual Abstract (597)

Date Range

From

mm/dd/yyyy

JAMA | March 1, 2022

Visual Abstract: Intra-arterial Alteplase vs Placebo After Successful Thrombectomy and Functional Outcomes in Large ...

JAMA Surgery | March 1, 2022

Visual Abstract: Impact of Portable Normothermic Blood-Based Perfusion vs Ischemic Cold Storage on Outcomes of Liver ...

JAMA Psychiatry | March 1, 2022

Visual Abstract: Driving Performance and Cannabis Users' Perception of Safety



Right Along the Actual Text Abstract...

JAMA Network[®] Access Provided by University of Michigan

JAMA[®] Journals Enter Search Term

This Issue Views 42,772 | Citations 0 | Altmetric 450

Download PDF More CME & MOC Cite This Permissions

Original Investigation
October 2, 2018

Effect of Early Surgery vs Physical Therapy on Knee Function Among Patients With Nonobstructive Meniscal Tears: The ESCAPE Randomized Clinical Trial

Victor A. van de Graaf, MD¹; Julia C. A. Noorduyn, MSc¹; Nienke W. Willigenburg, PhD¹; et al

» Author Affiliations | Article Information

JAMA. 2018;320(13):1328-1337. doi:10.1001/jama.2018.13308

Visual Abstract. Editorial Comment. Related Articles.

Key Points

Question Is physical therapy noninferior to early surgery with arthroscopic partial meniscectomy for improving knee function among patients with nonobstructive meniscal tears?

Findings In this noninferiority randomized clinical trial that included 321 patients, knee function that was measured by a self-administered questionnaire improved by 20.4 points in the physical therapy group vs 26.2 points in the early surgery group over a follow-up period of 24 months. The difference between the 2 treatment groups did not exceed the noninferiority margin of 8 points.

Meaning These results demonstrate noninferiority of physical therapy compared with early surgery with arthroscopic partial

Visual Abstract. View Large Download

JAMA Network[®]
Is physical therapy (PT) noninferior to early surgery for arthroscopic partial meniscectomy (APM) for improving knee function among patients with nonobstructive meniscal tears?

CONCLUSION PT was noninferior compared with early surgery with APM for improving self-reported knee function in patients with nonobstructive meniscal tears.

POPULATION
158 Men
161 Women
Adults aged 45 to 70 years with nonobstructive meniscal tears (no locking of the knee joint)
Mean age: 58 years

INTERVENTION
321 Patients randomized
289 Completed the trial (2 patients withdrew)
158 Surgery
161 PT exercise protocol
Surgery: Affected meniscus partially removed until a stable and solid meniscus remained
PT exercise protocol: 16 sessions, 30 minutes each, over 8 weeks

FINDINGS
Knee function score (range of 0-100, worse to best)
Surgery: Baseline 44.8, Follow-up 71.5, Improvement +26.2
PT exercise protocol: Baseline 46.5, Follow-up 67.7, Improvement +20.4
Between-group adjusted difference: 3.6 points (97.5% CI, -∞ to 6.5; P value for noninferiority = .001)

LOCATIONS
9 Hospitals in the Netherlands

PRIMARY OUTCOME
Change in patient-reported knee function on International Knee Documentation Committee Subjective Knee Form from baseline to 24-month follow-up

van de Graaf VA, Noorduyn JCA, Willigenburg NW, et al; Escape Research Group. Effect of early surgery vs physical therapy on knee function among patients with nonobstructive meniscal tears: the ESCAPE randomized clinical trial [published October 2, 2018]. JAMA. doi:10.1001/jama.2018.13308

Effect of Early Surgery vs PT on Knee Function Among Patients With Nonobstructive Meniscal Tears: A Randomized Clinical Trial

Figure 1. View Large Download

321 Patients randomized to intervention groups^a



Right Along the Actual Text Abstract...

JAMA Network[®] Access Provided by University of Michigan

JAMA[®] Journals Enter Search Term

This Issue Views 42,772 | Citations 0 | Altmetric 450

Download PDF More CME & MOC Cite This Permissions

Original Investigation
October 2, 2018

Effect of Early Surgery vs Physical Therapy on Knee Function Among Patients With Nonobstructive Meniscal Tears: The ESCAPE Randomized Clinical Trial

Victor A. van de Graaf, MD¹; Julia C. A. Noorduyn, MSc¹; Nienke W. Willigenburg, PhD¹; et al

» Author Affiliations | Article Information

JAMA. 2018;320(13):1328-1337. doi:10.1001/jama.2018.13308

Visual Abstract. Editorial Comment Related Articles

Key Points

Question Is physical therapy noninferior to early surgery with arthroscopic partial meniscectomy for improving knee function among patients with nonobstructive meniscal tears?

Findings In this noninferiority randomized clinical trial that included 321 patients, knee function that was measured by a self-administered questionnaire improved by 20.4 points in the physical therapy group vs 26.2 points in the early surgery group over a follow-up period of 24 months. The difference between the 2 treatment groups did not exceed the noninferiority margin of 8 points.

Meaning These results demonstrate noninferiority of physical therapy compared with early surgery with arthroscopic partial

Visual Abstract. View Large Download

JAMA Network[®]
Is physical therapy (PT) noninferior to early surgery for arthroscopic partial meniscectomy (APM) for improving knee function among patients with nonobstructive meniscal tears?

CONCLUSION PT was noninferior compared with early surgery with APM for improving self-reported knee function in patients with nonobstructive meniscal tears.

POPULATION
158 Men
161 Women
Adults aged 45 to 70 years with nonobstructive meniscal tears (no locking of the knee joint)
Mean age: 58 years

INTERVENTION
321 Patients randomized
289 Completed the trial (2 patients withdrew)
158 Surgery
161 PT exercise protocol
Surgery: Affected meniscus partially removed until a stable and solid meniscus remained
PT exercise protocol: 16 sessions, 30 minutes each, over 8 weeks

FINDINGS
Knee function score (range of 0-100, worse to best)
Surgery: Baseline 44.8, Follow-up 71.5, Improvement +26.2
PT exercise protocol: Baseline 46.5, Follow-up 67.7, Improvement +20.4
Between-group adjusted difference: 3.6 points (97.5% CI, -∞ to 6.5; P value for noninferiority = .001)

LOCATIONS
9 Hospitals in the Netherlands

PRIMARY OUTCOME
Change in patient-reported knee function on International Knee Documentation Committee Subjective Knee Form from baseline to 24-month follow-up

van de Graaf VA, Noorduyn JCA, Willigenburg NW, et al; Escape Research Group. Effect of early surgery vs physical therapy on knee function among patients with nonobstructive meniscal tears: the ESCAPE randomized clinical trial [published October 2, 2018]. JAMA. doi:10.1001/jama.2018.13308

Effect of Early Surgery vs PT on Knee Function Among Patients With Nonobstructive Meniscal Tears: A Randomized Clinical Trial

Figure 1. View Large Download

321 Patients randomized to intervention groups^a



Now >100 ADOPTERS OF THE VISUAL ABSTRACT

Annals of Surgery
THE WORLD'S MOST REFERENCED SURGERY JOURNAL
ESTABLISHED 1885

World Journal of Surgery

Journal of the American College of Surgeons

IACS

GlobalSurg

Journal of Urology

TU

Original Article: Rivaroxaban with or without Aspirin in Stable Cardiovascular Disease (COMPASS) nejm.md/2vrQpG6
#VisualAbstract

Rivaroxaban + Aspirin in Stable Cardiovascular Disease

RANDOMIZED, DOUBLE-BLIND, CONTROLLED TRIAL

N=9152	N=9126	N=9117
Rivaroxaban + aspirin	Aspirin alone	Rivaroxaban alone
379 patients 4.1%	496 patients 5.4%	448 patients 4.9%
Primary composite outcome: cardiovascular death, stroke, or MI		
Combination vs. Aspirin Significant benefit		Rivaroxaban vs. Aspirin No significant benefit

The NEW ENGLAND JOURNAL of MEDICINE
Eikelboom et al. 2017

9:05 AM - 5 Oct 2017

Heart_BMJ
@Heart_BMJ

Great to see the #VisualAbstract being discussed at #TCTDenver. @Heart_BMJ adopted them earlier this year; here's a selection of ours so far

Primary bypass surgery versus stenting in multivessel disease involving the proximal left anterior descending coronary artery

Loneliness and social isolation as risk factors for coronary heart disease and stroke

See specific outcomes with addition of defibrillation to resynchronization therapy in patients with heart failure

Peer social relationships

Coronary heart disease +29%
Stroke +32%
Similar effects in both men and women
"Effects to reduce cardiovascular disease incidence need to consider loneliness and social isolation"

CRF-P vs CRF-DIT

6387 patients undergoing primary prevention CRT implantation, & late-included delayed cardiomyopathy

Median follow-up 36 months

Addition of a defibrillator showed survival benefit only in men and not women

Diagnostic and prognostic benefits of CTCA using the 2014 NICE guidance within a randomized trial

Chocolate intake and risk of clinically apparent atrial fibrillation: the Danish Diet, Cancer, and Health Study

Myocardial biopsy: techniques and indications

Best common indication: Resolving uncertain post-transplant

Other indications:

- Post-transplant failure of medical therapy
- Suspected heart failure (ischemic or non-ischemic) with severe left ventricular dysfunction
- Other cases considered useful in an clinical trial

Rate of invasive angiography

Number of normal invasive angiograms

3.2 year MACE

Higher chocolate intake was associated with an 11.2% reduction in the risk of AF that there are important confounders

CRF-P vs CRF-DIT

Heart_BMJ

6:10 AM - 2 Nov 2017

MMWR
@CDCMMWR

#VisualAbstract: If your middle or high school #student is not getting enough #sleep, they are not alone! cdc.gov/mmwr/volumes/6 ...

Zzzzzz.... SLEEPY KIDS
MOST STUDENTS NEED MORE SLEEP

SLEEP IS CRITICAL TO PREVENT

- DIABETES
- OBESITY
- POOR MENTAL HEALTH
- INJURIES
- ATTENTION OR BEHAVIORAL PROBLEMS

6 OUT OF 10 MIDDLE SCHOOLERS DON'T GET ENOUGH SLEEP

7 OUT OF 10 HIGH SCHOOLERS DON'T GET ENOUGH SLEEP

KIDS AGED 6-12 NEED 9-12 HOURS

TEENS AGED 13-18 NEED 8-10 HOURS

MIDDLE SCHOOLERS: 2015 DATA FROM 9 STATES
HIGH SCHOOLERS: 2015 NATIONWIDE DATA
Whitaker et al. MMWR, Jan 2016 (goo.gl/dppQ79)

10:29 AM - 26 Jan 2018

U-M Family Medicine
@UMFamilyMed
FOLLOWS YOU

Excellence in medical education, patient care and research, we are the Department of Family Medicine at ...

Followed by Michigan Surgery and 67 others

U-M IHPI
@UM_IHPI
FOLLOWS YOU

Institute for Healthcare Policy & Innovation unites 490 faculty @umich & @umichmedicine doing ...

Followed by Kyle Sheetz and 199 others

Journal of Pediatric Surgery
PEDIATRIC SURGICAL ASSOCIATION

JPS
@jpsurg
FOLLOWS YOU

Follow the latest publications from The Journal of Pediatric Surgery. Send comments or suggested posts to...

Followed by Michigan Surgery and 76 others

STARSurge
@STARSurgeUK
FOLLOWS YOU

Student Audit & Research in Surgery (STARSurge): Student-driven national network. Collaborate, learn, and...

Followed by Dominique Vervoot and 107 others

Nephrology Jrnl Club
@NephJC
FOLLOWS YOU

A twice monthly nephrology journal club that meets on Twitter. Hashtag #NephJC

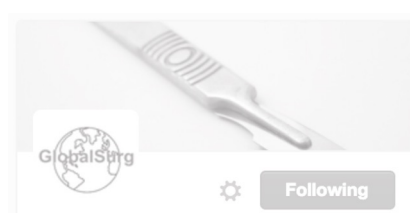
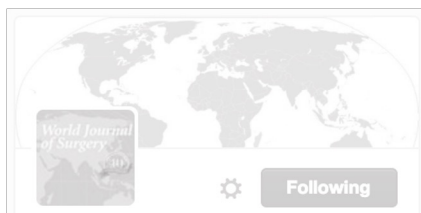
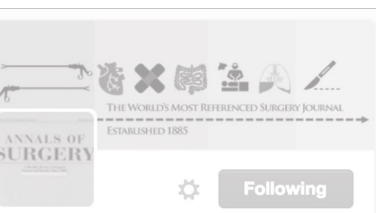
Followed by Michael J. Choi and 49 others

Journal of Trauma
@JTraumaAcuteSurg

The Journal of Trauma and Acute Surgery focuses on traumatic injuries giving the reader hands-on coverage.

Followed by Colleen M. Ryan, MD and 199 others

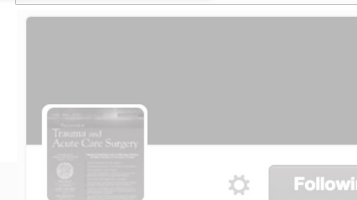
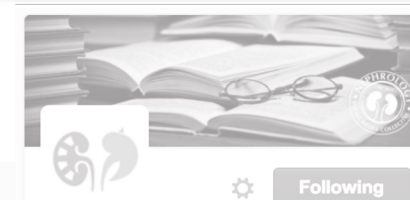
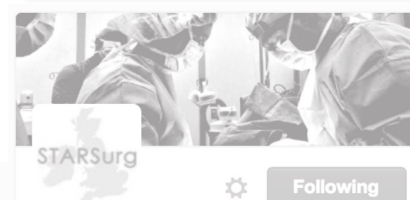
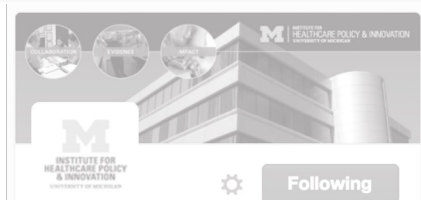
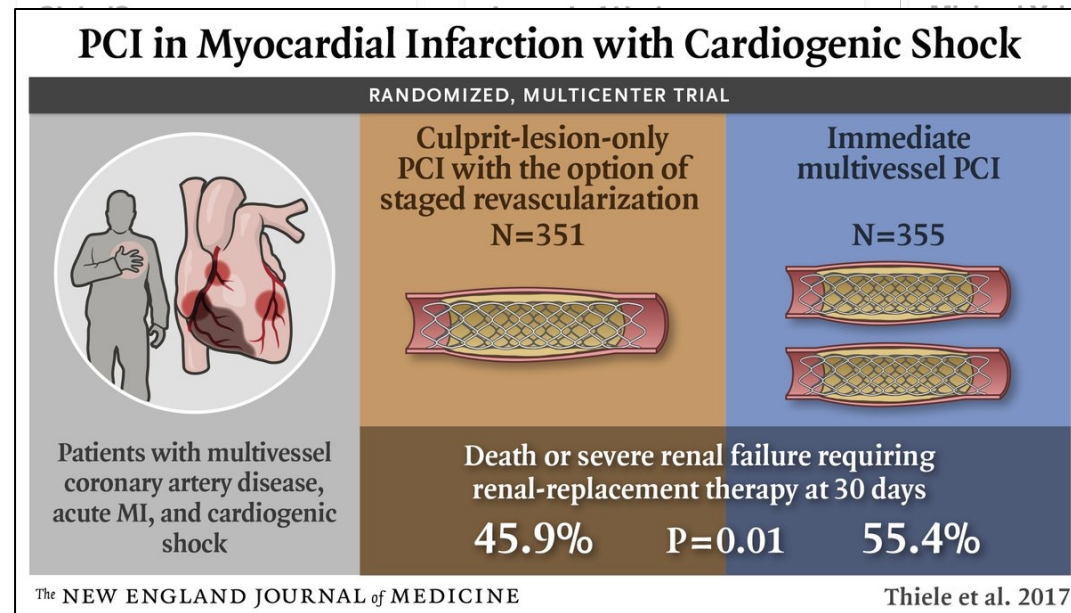
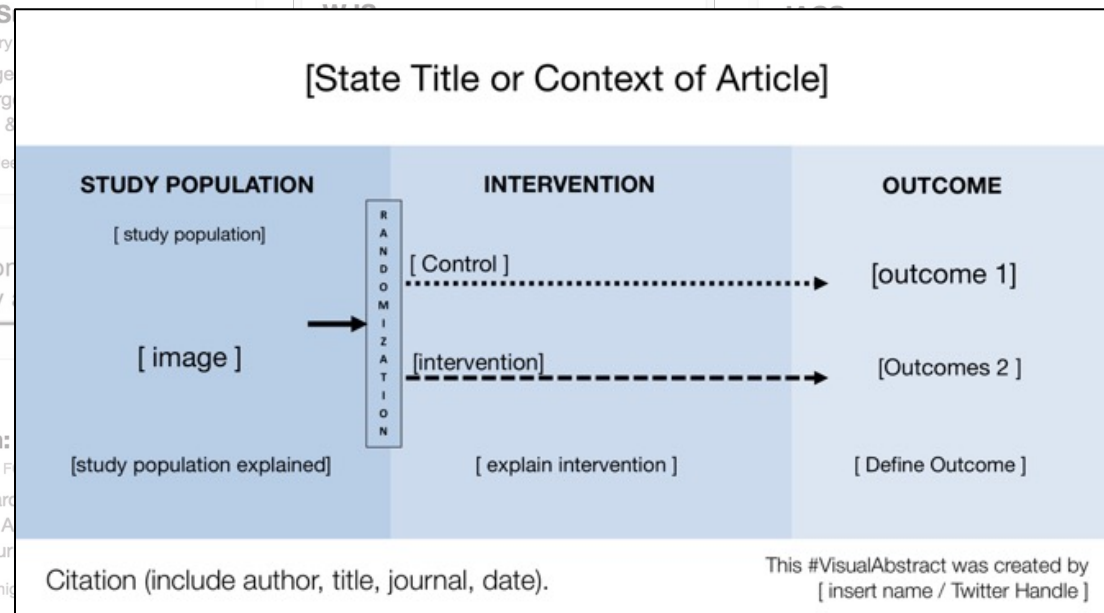
Now >100 ADOPTERS OF THE VISUAL ABSTRACT



Annals of S
@AnnalsofSurgery
Annals of Surge
referenced surg
to discovering &
Followed by Collec

Circulation
Quality

Circulation:
@CircOutcomes F
Circulation: Card
Outcomes, an A
Association jour
Followed by Michi



U-M Family Medicine
@UMFamilyMed
FOLLOWING YOU

Excellence in medical education, patient care and research, we are the Department of Family Medicine at ...

Followed by Michigan Surgery and 67 others

U-M IHPI
@UM_IHPI
FOLLOWING

Institute for Healthcare Policy & Innovation unites 490 faculty @umich & @umichmedicine doing ...

Followed by Kyle Sheetz and 199 others

JPS
@jpedsurg
FOLLOWING

Follow the latest publications from The Journal of Pediatric Surgery. Send comments or suggested posts to...

Followed by Michigan Surgery and 76 others

STARSurg
@STARSurgUK
FOLLOWING

Student Audit & Research in Surgery (STARSurg): Student-driven national network. Collaborate, learn, and...

Followed by Dominique Vervoot and 107 others

Nephrology Jrnl Club
@NephJC
FOLLOWING

A twice monthly nephrology journal club that meets on Twitter. Hashtag #NephJC

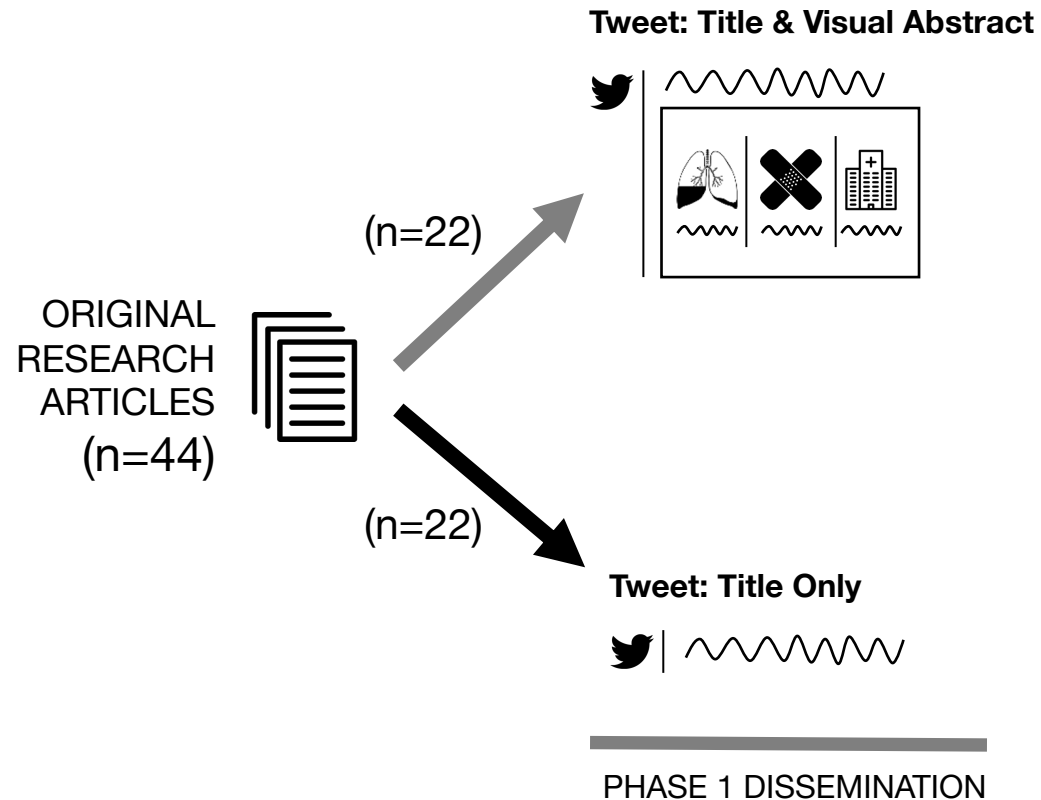
Followed by Michael J. Choi and 49 others

Journal of Trauma and Acute Care Surgery
@JTraumaAcuteSurg
FOLLOWING

The Journal of Trauma and Acute Care Surgery focuses on traumatic injuries giving the reader hands-on coverage.

Followed by Colleen M. Ryan, MD and 199 others

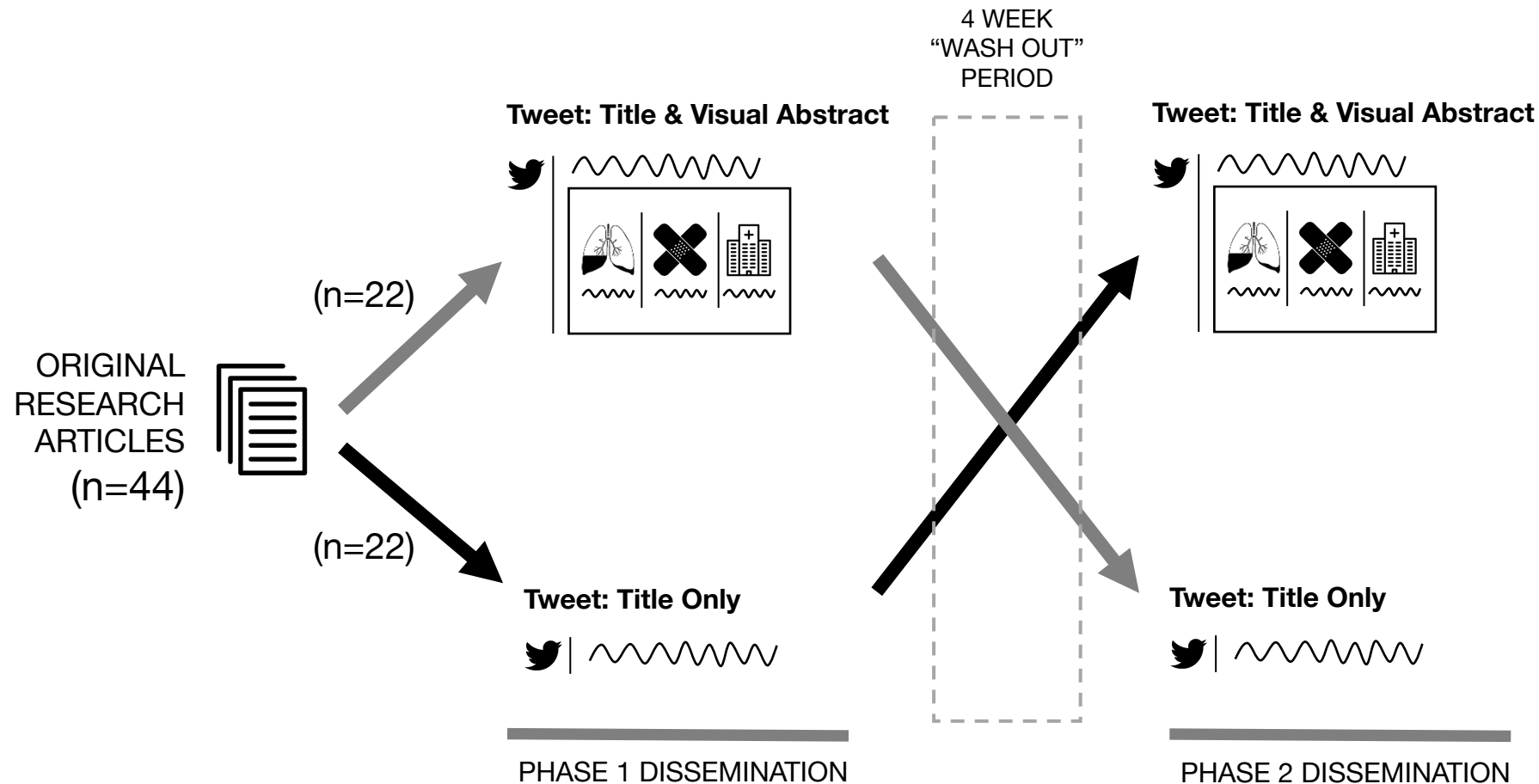
Prospective, Matched-Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter



Ibrahim et al. Ann Surg. 2017



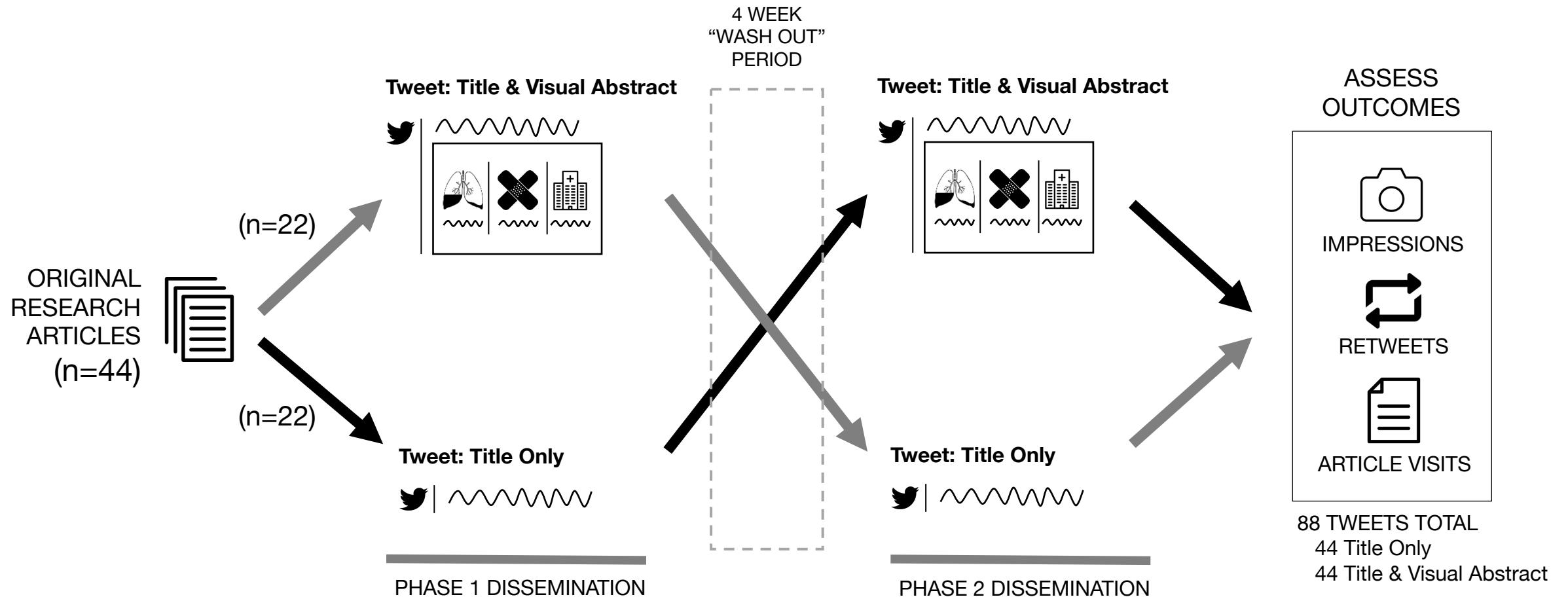
Prospective, Matched-Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter



Ibrahim et al. Ann Surg. 2017



Prospective, Matched-Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter

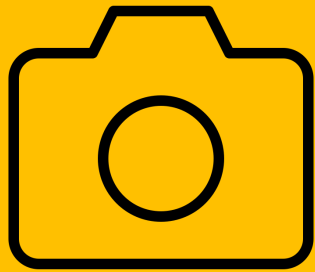


Ibrahim et al. Ann Surg. 2017



Impact of Visual Abstracts on Article Dissemination

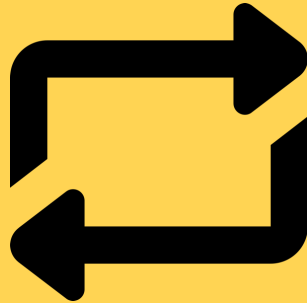
IMPRESSIONS
x7.7 fold



3k ➡ 23k

(No. of times a Tweet was seen)

RETWEETS
x8.4 fold



11 ➡ 92

(No. of times a Tweet was shared)

ARTICLE VISITS
x2.7 fold



65 ➡ 175

(No. of Article Visits via link click)

Ibrahim et al. Ann Surg. 2017



NO SUBSTITUTE FOR READING THE ACTUAL ARTICLE

ARTICLE VISITS
x2.7 fold



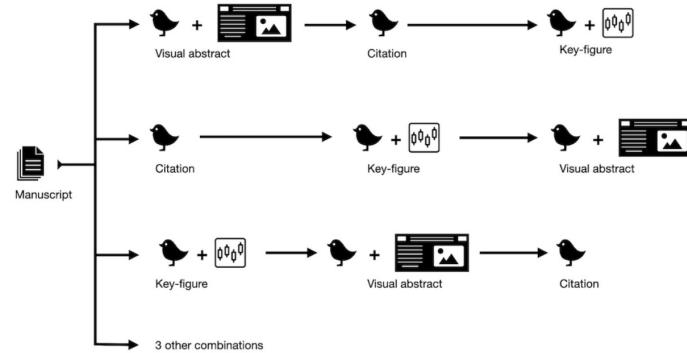
65 ➡ 175

(No. of Article Visits via link click)



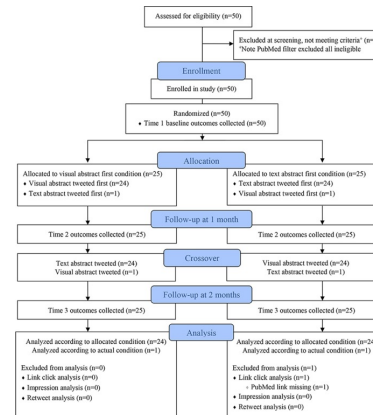
Reproducible Dissemination

Five Additional Randomized Controlled Trials

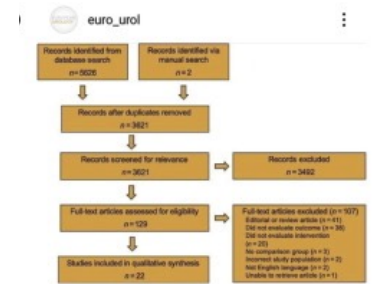


Oska S, et al. J Med Internet Res 2020;22(12):e22327

Hoffberg AS et al. 2020) *Front. Res. Metr. Anal.* 5:564193.



Chisari et al. J Arthroplasty. 2021 Aug;36(8):3010-3014.

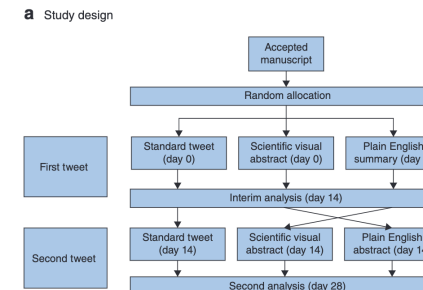


Klassen et al. European Urology. Eur Urol. 2022 Feb

1612

S. J. Chapman, R. C. Grossman, M. E. B. FitzPatrick and R. R. W. Brady

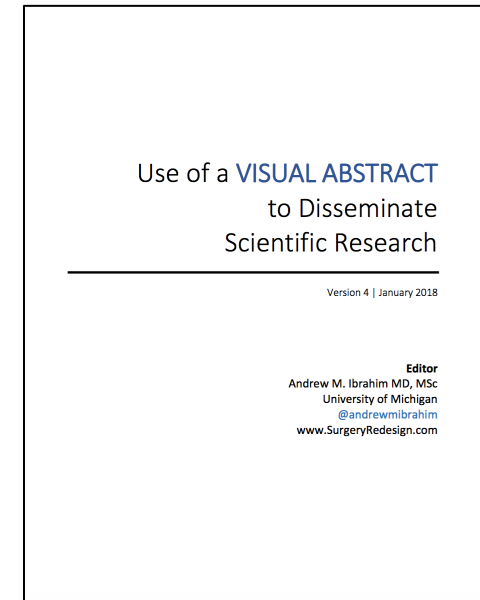
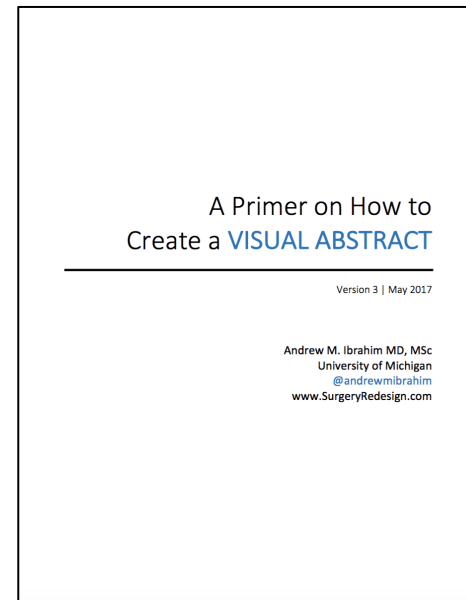
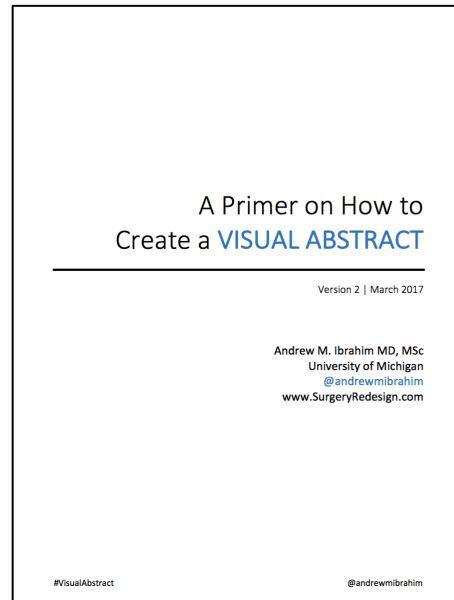
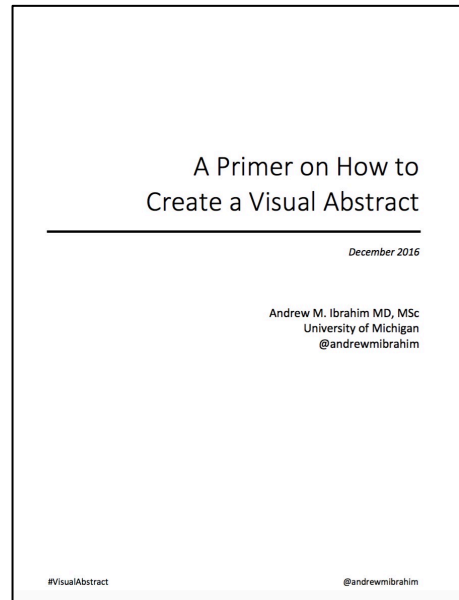
Fig. 1 Study design



Chapman et al. Br J Surg. 2019 Oct 2:1611-1616



Visual Abstract Goes Open Source...

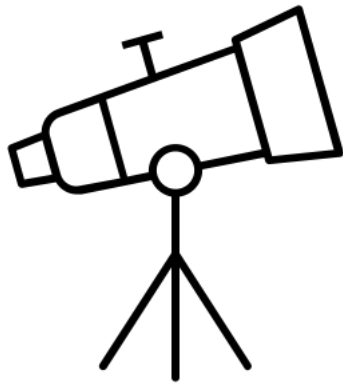


Full PDF Primer, regularly updated:
www.SurgeryRedesign.com/resources



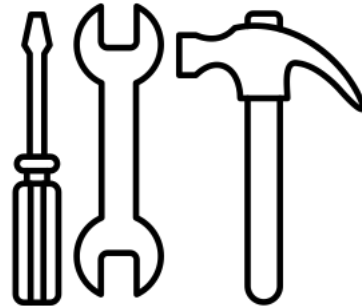
Goals for Today

Conference
PERSPECTIVE



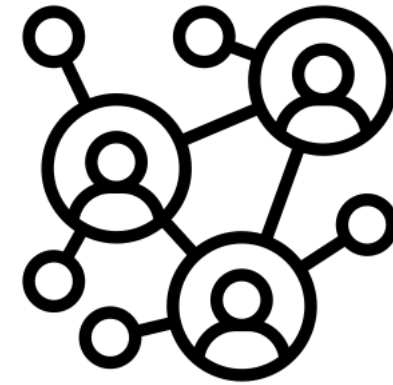
What to Expect!
& how to Navigate

Harness
DESIGN TOOLS



Make Your Work
More Engaging

Build a
COMMUNITY

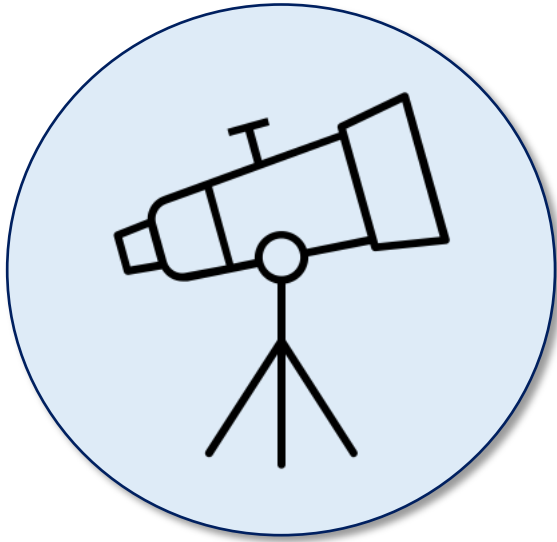


Connect Before
the Meeting Starts



Goals for Today

Conference
PERSPECTIVE



What to Expect!
& how to Navigate

Harness
DESIGN TOOLS



Make Your Work
More Engaging

Build a
COMMUNITY



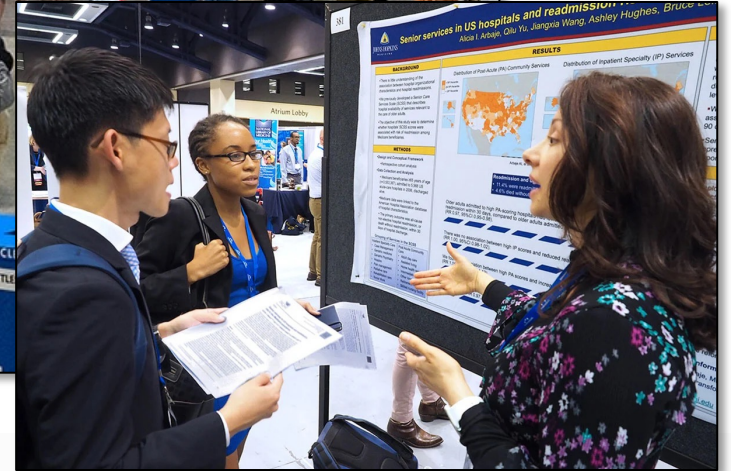
Connect Before
the Meeting Starts



AcademyHealth: ARM



ARM Poster Session



Where a lot of amazing conversations happen...



Packed
Schedule
You Always Wish
You had More time

ANNUAL RESEARCH MEETING
June 29-July 2, 2024 | Baltimore, MD

Home
Search
Schedule By Day
Themes
Session Types
Posters
Speaker List
Supporters
Exhibitors
Code of Conduct
Technical Support

Saturday, June 29, 2024

FRI 28 SAT 29 SUN 30 MON 01 TUE 02

Interdisciplinary Research Group of
Holiday 1 (2nd Floor, Hilton Bal

Registration Open
Charles Street Lobby (Level 100

An Overview of PCORI Opportu
Key Ballroom 11 (2nd Floor, Hil

Operating Learning Health System
and Other Innovation Methods from
Key Ballroom 12 (2nd Floor, Hil

AHRQ National Advisory Council
Key Ballroom 9 (2nd Floor, Hil

Celebrating Emerging Scholars and
318-320 (Level 300, Baltimore Con

Chronic Disease Prevention and Ma
308 (Level 300, Baltimore Con

Determinants of Health Care Use a
314 (Level 300, Baltimore Con

Digital Roads to National Policy
307 (Level 300, Baltimore Con

Elevating Quality via Value-based C
337-338 (Level 300, Baltimore

Enhancing Learning through the Ne
331-332 (Level 300, Baltimore

Improving Advanced Illness Care: C
331-332 (Level 300, Baltimore

Improving Care Coordination and C
309 (Level 300, Baltimore Con

Maximizing the Value of Internation
327 (Level 300, Baltimore Con

Methodological Approaches for Par
Address Maternal Morbidity and M
316 (Level 300, Baltimore Con

More Bang for the Medicare Buck
328-329 (Level 300, Baltimore

Nursing Workforce Issues and Chal
317 (Level 300, Baltimore Con

Opportunities and Challenges for A
301-303 (Level 300, Baltimore

Promising Interventions to Address
Social Needs
310 (Level 300, Baltimore Con

Sunday, June 30, 2024

FRI 28 SAT 29 SUN 30 MON 01 TUE 02

Coffee & Conversation with Commonwealth Fund Medicare Program
Blake (2nd Floor, Hilton Baltimore Inner Harbor)

Contract Research Organization Networking Breakfast
Johnson (1st Floor, Hilton Baltimore Inner Harbor)

Registration Open
Charles Street Lobby (Level 100, Baltimore Convention Center)

Meet the Experts Student Breakfast

Continental Breakfast
Baltimore Convention Center

Best Poster Nominations
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session: Aging and End-of-Life
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session: Digital Technologies, Data, and Analytics
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session: Improving Safety, Quality and Value
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session: Individuals Living with Disability or Other Complex Cond
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session: Medicaid, Coverage, and Access
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session: Public and Population Health
Halls A-B (Level 100, Baltimore Convention Center)

Poster Session A
Halls A-B (Level 100, Baltimore Convention Center)

Exhibit Hall Open
Hall C (Level 100, Baltimore Convention Center)

Building Your LinkedIn Presence

Poster Walk: Public and Population Health
Halls A-B (Level 100, Baltimore Convention Center)

Addressing Critical Issues in Global Health
336 (Level 300, Baltimore Convention Center)

Barriers and Facilitators of Participatory HSR with People with Developmental Disabilities
301-303 (Level 300, Baltimore Convention Center)

Best Practices in HSR Training Programs
331-332 (Level 300, Baltimore Convention Center)

Capacity Building for Implementation at the Health System Level
315 (Level 300, Baltimore Convention Center)

Monday, July 1, 2024

FRI 28 SAT 29 SUN 30 MON 01 TUE 02

Continental Breakfast
Baltimore Convention Center

Registration Open
Charles Street Lobby (Level 100, Baltimore Convention Center)

Advancements in Health Equity
337-338 (Level 300, Baltimore Convention Center)

An Update on Women's Health
316 (Level 300, Baltimore Convention Center)

Care for Individuals with Complex
331-332 (Level 300, Baltimore Convention Center)

Changing Landscape of Scientific
301-303 (Level 300, Baltimore Convention Center)

Equitable Public Health Practice
317 (Level 300, Baltimore Convention Center)

How Data Equity Frameworks In
324-325 (Level 300, Baltimore Convention Center)

Improving Access and Outcomes
327 (Level 300, Baltimore Convention Center)

Innovations in Patient-Centered
310 (Level 300, Baltimore Convention Center)

Late-Breaking Session: Medicare
321-323 (Level 300, Baltimore Convention Center)

Medicaid Eligibility and Connect
308 (Level 300, Baltimore Convention Center)

Modernization of the Medical Ex
314 (Level 300, Baltimore Convention Center)

New Evidence from Medicare Pa
328-329 (Level 300, Baltimore Convention Center)

Social Determinants and Mental
315 (Level 300, Baltimore Convention Center)

Surgical and Perioperative Care
336 (Level 300, Baltimore Convention Center)

Telehealth Policy and Practice
309 (Level 300, Baltimore Convention Center)

The Evolving Learning Health System
319-320 (Level 300, Baltimore Convention Center)

Topics on Quality of Care: Patient
307 (Level 300, Baltimore Convention Center)

Exhibit Hall Open
Hall C (Level 100, Baltimore Convention Center)

Tuesday, July 2, 2024

FRI 28 SAT 29 SUN 30 MON 01 TUE 02

Registration Open
Charles Street Lobby (Level 100, Baltimore Convention Center)

Continue the Conversation: Teaching Responsible AI: Ethics of AI in Data Science and Health Care Education
314 (Level 300, Baltimore Convention Center)

When is enough, enough? Considering the role of social movements alongside incremental policy reform
316 (Level 300, Baltimore Convention Center)

Continental Breakfast
Baltimore Convention Center

Health Economics Interest Group Networking Session

Advancing a Values-Aligned Vision for the Field: HSR Innovation & Inclusivity
337-338 (Level 300, Baltimore Convention Center)

Advancing Health Services Research through Cutting-Edge Data Science Methods
328-329 (Level 300, Baltimore Convention Center)

Aligning Nursing Workforce Research with Operational Needs
315 (Level 300, Baltimore Convention Center)

Artificial Intelligence Policy for Biopharmaceuticals Advancing Science with Ethics
318-320 (Level 300, Baltimore Convention Center)

Gender- and Sex-Specific Health Care: Implementation and Determinants of Access
307 (Level 300, Baltimore Convention Center)

Health Equity and Care Delivery: Improving Access and Outcomes
327 (Level 300, Baltimore Convention Center)

Inclusion and Accessibility: How Digital Health Technologies Can Promote Equity and Transform the Care Experience
316 (Level 300, Baltimore Convention Center)

Late-Breaking Session: Reproductive Health in the Post-Dobbs World
317 (Level 300, Baltimore Convention Center)

Medicare Advantage and Access to Care Among Vulnerable Populations
321-323 (Level 300, Baltimore Convention Center)

Publish and Flourish: Meet the Editors
308 (Level 300, Baltimore Convention Center)

Quality and Value Interest Group: Top-Ranked Research and Early Career Investigator Awards
331-332 (Level 300, Baltimore Convention Center)

Social Needs, Healthcare Utilization and Medicaid
310 (Level 300, Baltimore Convention Center)

The Centers for Medicare & Medicaid Services Data and Information Products
324-325 (Level 300, Baltimore Convention Center)

The Learning Health System: A Collaboration for Research and Practice
309 (Level 300, Baltimore Convention Center)

Using Evidence to Address Unustainable Health Care Costs
301-303 (Level 300, Baltimore Convention Center)



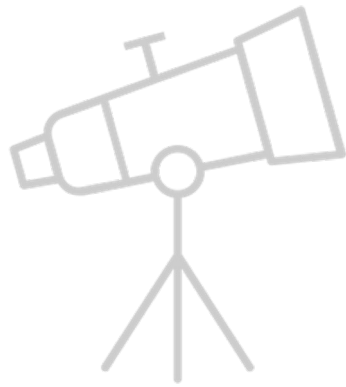
Will anyone remember my poster? My talk?

I have some strategies for you...



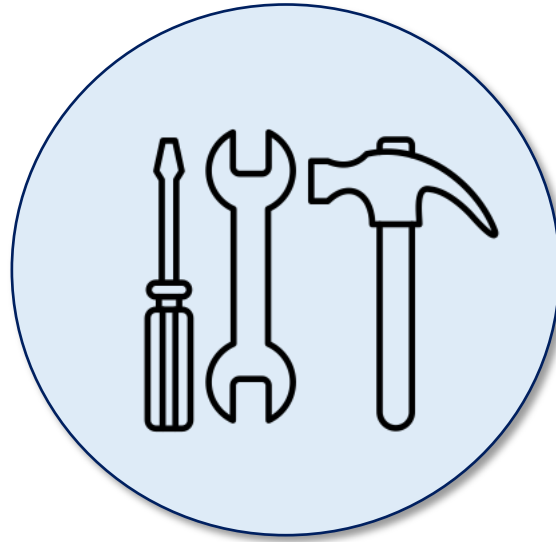
Goals for Today

Conference
PERSPECTIVE



What to Expect!
& how to Navigate

Harness
DESIGN TOOLS



Make Your Work
More Engaging

Build a
COMMUNITY



Connect Before
the Meeting Starts



The Dreaded Poster

POSTER TITLE

Authors & Institutions

ANNUAL
RESEARCH MEETING

RESEARCH OBJECTIVE

Copy and paste your text content here, adjusting the font size to fit into the textbox.

POPULATION STUDIED

Copy and paste your text content here, adjusting the font size to fit into the textbox.

PRINCIPAL FINDINGS

Copy and paste your text content here, adjusting the font size to fit into the textbox.

ACKNOWLEDGEMENTS

Copy and paste your text content here, adjusting the font size to fit into the textbox.

STUDY DESIGN

Copy and paste your text content here, adjusting the font size to fit into the textbox.

Figure 1



Table 1

Table 2

Copy and paste your text content here, adjusting the font size to fit into the textbox.

REFERENCES

Copy and paste your text content here, adjusting the font size to fit into the textbox.

IMPLICATIONS FOR POLICY AND PRACTICE

Copy and paste your text content here, adjusting the font size to fit into the textbox.

CONCLUSION

Copy and paste your text content here, adjusting the font size to fit into the textbox.

CONTACT INFORMATION

Copy and paste your text content here, adjusting the font size to fit into the textbox.



Rethink Your Poster as Invitation



You will be there for a conversation!



GUIDING PRINCIPLES OF EFFECTIVE DESIGN

A Primer on How to Create a **VISUAL ABSTRACT**

Version 3 | May 2017

Andrew M. Ibrahim MD, MSc
University of Michigan
[@andrewmibrahim](https://twitter.com/andrewmibrahim)
www.SurgeryRedesign.com



Focus on the user experience. The process of design starts and always returns to the user experience. Always keep in mind, “What does my audience on Twitter want to know about scientific research?”



Clarity of Purpose. Particularly within complex articles, you want to spend time narrowing the key message down to what you want to deliver. Some simplification of presentation may be necessary to establish a clear focus.



Rapid Prototyping. There are infinite ways to visually display research. Your 1st, 2nd or 10th visual abstract won’t be your best one. You will improve significantly by rapidly trying new formats and seeing what works!



Iterative Improvement. Rather than ask, “Is it perfect?” design thinking focuses on, “What is the next step to make it partially better?” You will significantly improve by soliciting feedback and studying other designs.



Thoughtful Restraint. Prioritize the key message over completeness. Sure, having every secondary endpoint and every limitation of the article in the visual abstract is ideal to give context, but this can significantly distract from the key message. In the case of visual abstracts, more is not always better.



Relevant Creativity. Thinking outside the box can be valuable, but ultimately needs to be grounded in the desired outcome. Experimenting “just to be different” isn’t always effective. You should frequently balance your design creativity with *thoughtful restraint* and *clarity of purpose*.



END USER EXPERIENCE



Who Is Your Audience?

Scientists?

Public?

Policy Makers?

(describe in 3 words)



END USER EXPERIENCE



**Academy
Health ARM**

Action-Oriented
Technical
Busy



Which Can You Read Faster?

Accession Number: 00000658-201607000-00029.

Author: Cole, Elaine PhD; Lecky, Fiona MBBS; West, Anita RN; Smith, Neil PhD; Brohi, Karim FRCS; Davenport, Ross PhD; on behalf of the ELoS Study Collaborators

Institution: (*)Centre for Trauma Sciences, Blizard Institute, Queen Mary University of London, London, UK
(+)Emergency Medicine Research, University of Sheffield, London, UK
(++)Barts Health NHS Trust, Royal London Hospital, London, UK
(S)NCEPOD (National Confidential Enquiry into Patient Outcome and Death), London, UK.

Title: [The Impact of a Pan-regional Inclusive Trauma System on Quality of Care \[Article\]](#)

Source: Annals of Surgery. 264(1):188-194, July 2016.

Abstract: Objectives: To evaluate the impact of the implementation of an inclusive pan-regional trauma system on quality of care.

Background: Inclusive trauma systems ensure access to quality injury care for a designated population. The 2007 National Confidential Enquiry into Patient Outcome and Death (NCEPOD) found quality deficits for 60% of severely injured patients. In 2010, London implemented an inclusive trauma system. This represented an opportunity to evaluate the impact of a pan-regional trauma system on quality of care.

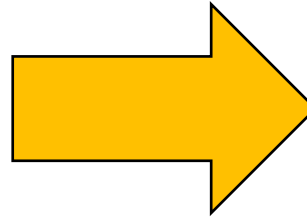
Methods: Evaluation of the London Trauma System (ELoS) utilized the NCEPOD study core methodology. Severely injured patients were identified prospectively over a 3-month period. Data were collected from prehospital care to 72 h following admission or death. Quality, processes of care, and outcome were assessed by expert review using NCEPOD criteria.

Results: Three hundred and twenty one severely injured patients were included of which 84% were taken directly to a major trauma center, in contrast to 16% in NCEPOD. Overall quality improved with the proportion of patients receiving "good overall care" increasing significantly [NCEPOD: 48% vs ALL-ELoS: 69%, RR 1.3 (1.2 to 1.4), $P < 0.01$], primarily through improvements in organizational processes rather than clinical care. Improved quality was associated with increased early survival, with the greatest benefit for critically injured patients [NCEPOD: 31% vs ALL-ELoS 11%, RR 0.37 (0.33 to 0.99), $P = 0.04$].

Conclusions: Inclusive trauma systems deliver quality and process improvements, primarily through organizational change. Most improvements were seen in major trauma centers; however, systems implementation did not automatically lead to a reduction in clinical deficits in care.

Copyright (C) 2016 Wolters Kluwer Health, Inc. All rights reserved.

DOI Number: 10.1097/SLA.0000000000001393



London Trauma after establishing an inclusive, coordinated trauma system

Access to Trauma
Specialist on First Arrival



16% ➡ 84%

Involvement of senior
clinicians <30 min



38% ➡ 92%

Improved Survival in
critically ill (ISS>35)



69% ➡ 89%

Cole et al. *Ann Surg.* July 2016.

ANNALS OF SURGERY
A Monthly Review of Surgical Science Since 1885

@AnnalsofSurgery | Copyright © 2016 Wolters Kluwer Health, Inc. All rights reserved. Published by Lippincott Williams & Wilkins, Inc.



Which Can You Read Faster?

Accession Number: 00000658-201607000-00029.

Author: Cole, Elaine PhD; Lecky, Fiona MBBS; West, Anita RN; Smith, Neil PhD; Brohi, Karim FRCS; Davenport, Ross PhD; on behalf of the ELoTS Study Collaborators

Institution: (*)Centre for Trauma Sciences, Blizard Institute, Queen Mary University of London, London, UK
(+)Emergency Medicine Research, University of Sheffield, London, UK
(++)Barts Health NHS Trust, Royal London Hospital, London, UK
(§)NCEPOD (National Confidential Enquiry into Patient Outcome and Death), London, UK.

Title: [The Impact of a Pan-regional Inclusive Trauma System on Quality of Care \[Article\]](#)

Source: Annals of Surgery. 264(1):188-194, July 2016.

Abstract: Objectives: To evaluate the impact of the implementation of an inclusive pan-regional trauma system on quality of care.

Background: Inclusive trauma systems ensure access to quality injury care for a designated population. The 2007 National Confidential Enquiry into Patient Outcome and Death (NCEPOD) found quality deficits for 60% of severely injured patients. In 2010, London implemented an inclusive trauma system. This represented an opportunity to evaluate the impact of a pan-regional trauma system on quality of care.

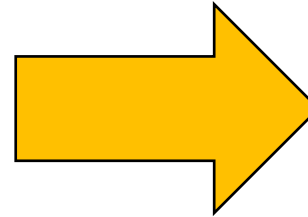
Methods: Evaluation of the London Trauma System (ELoTS) utilized the NCEPOD study core methodology. Severely injured patients were identified prospectively over a 3-month period. Data were collected from prehospital care to 72 h following admission or death. Quality, processes of care, and outcome were assessed by expert review using NCEPOD criteria.

Results: Three hundred and twenty one severely injured patients were included of which 84% were taken directly to a major trauma center, in contrast to 16% in NCEPOD. Overall quality improved with the proportion of patients receiving "good overall care" increasing significantly [NCEPOD: 48% vs ALL-ELoTS: 69%, RR 1.3 (1.2 to 1.4), $P < 0.01$], primarily through improvements in organizational processes rather than clinical care. Improved quality was associated with increased early survival, with the greatest benefit for critically injured patients [NCEPOD: 31% vs All-ELoTS 11%, RR 0.37 (0.33 to 0.99), $P = 0.04$].

Conclusions: Inclusive trauma systems deliver quality and process improvements, primarily through organizational change. Most improvements were seen in major trauma centers; however, systems implementation did not automatically lead to a reduction in clinical deficits in care.

Copyright (C) 2016 Wolters Kluwer Health, Inc. All rights reserved.

DOI Number: 10.1097/SLA.0000000000001393



London Trauma after establishing an inclusive, coordinated trauma system

Access to Trauma Specialist on First Arrival



16% ➡ 84%

Involvement of senior clinicians <30 min



38% ➡ 92%

Improved Survival in critically ill (ISS>35)



69% ➡ 89%

Cole et al. *Ann Surg.* July 2016.

ANNALS OF SURGERY
A Monthly Review of Surgical Science Since 1885

@AnnalsofSurgery | Copyright © 2016 Wolters Kluwer Health, Inc. All rights reserved. Published by Lippincott Williams & Wilkins, Inc.

60 Seconds

6 Seconds



CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

CLARITY OF PURPOSE



CLEAR.
Very CLEAR.
Super CLEAR.
(and concise)



CLARITY OF PURPOSE



What
is the
Message?



Which Would You Rather Read (while walking thru busy poster session)?

“Process Measures and Outcomes of Care before and after implementation of a coordinated trauma system in the London region for patients experiencing trauma, specifically for patients with ISS scores greater than 25.”

“London Trauma after Establishing an Inclusive,
Coordinated Trauma System”



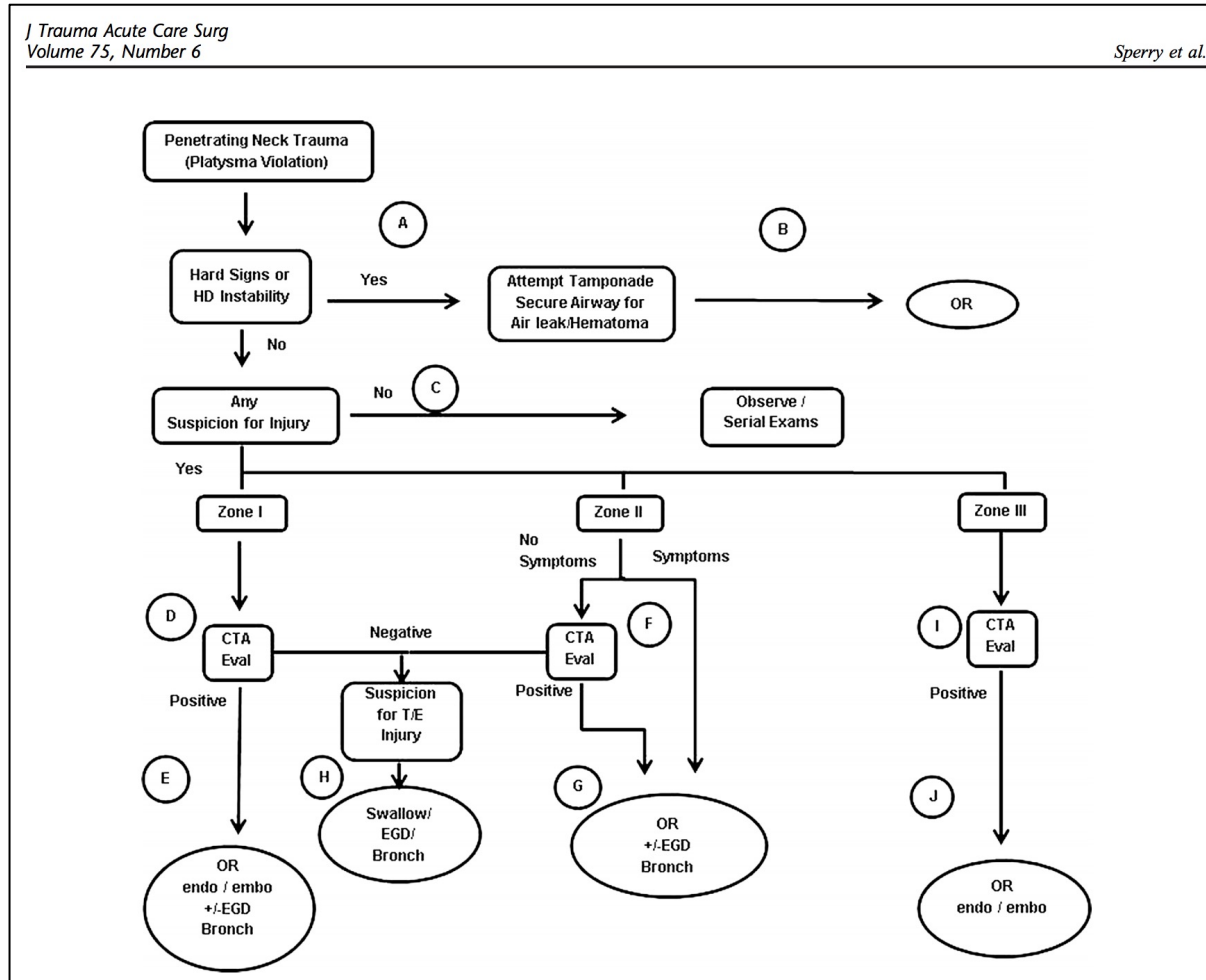
CLARITY OF PURPOSE



5 words
are better
than 7



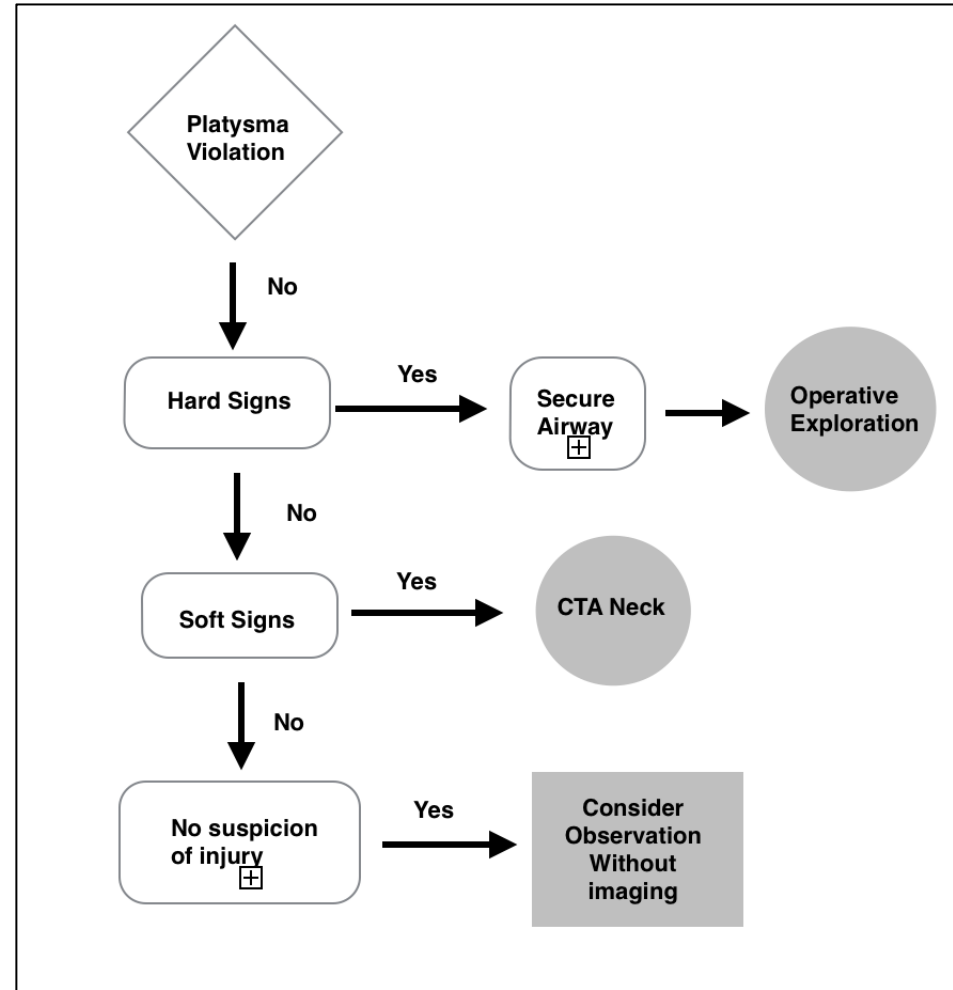
THOUGHTFUL RESTRAINT



Sperry JL, Moore EE, Coimbra R, et al. Western Trauma Association critical decisions in trauma: penetrating neck trauma. *J Trauma Acute Care Surg.* 2013;75(6):936–940



THOUGHTFUL RESTRAINT



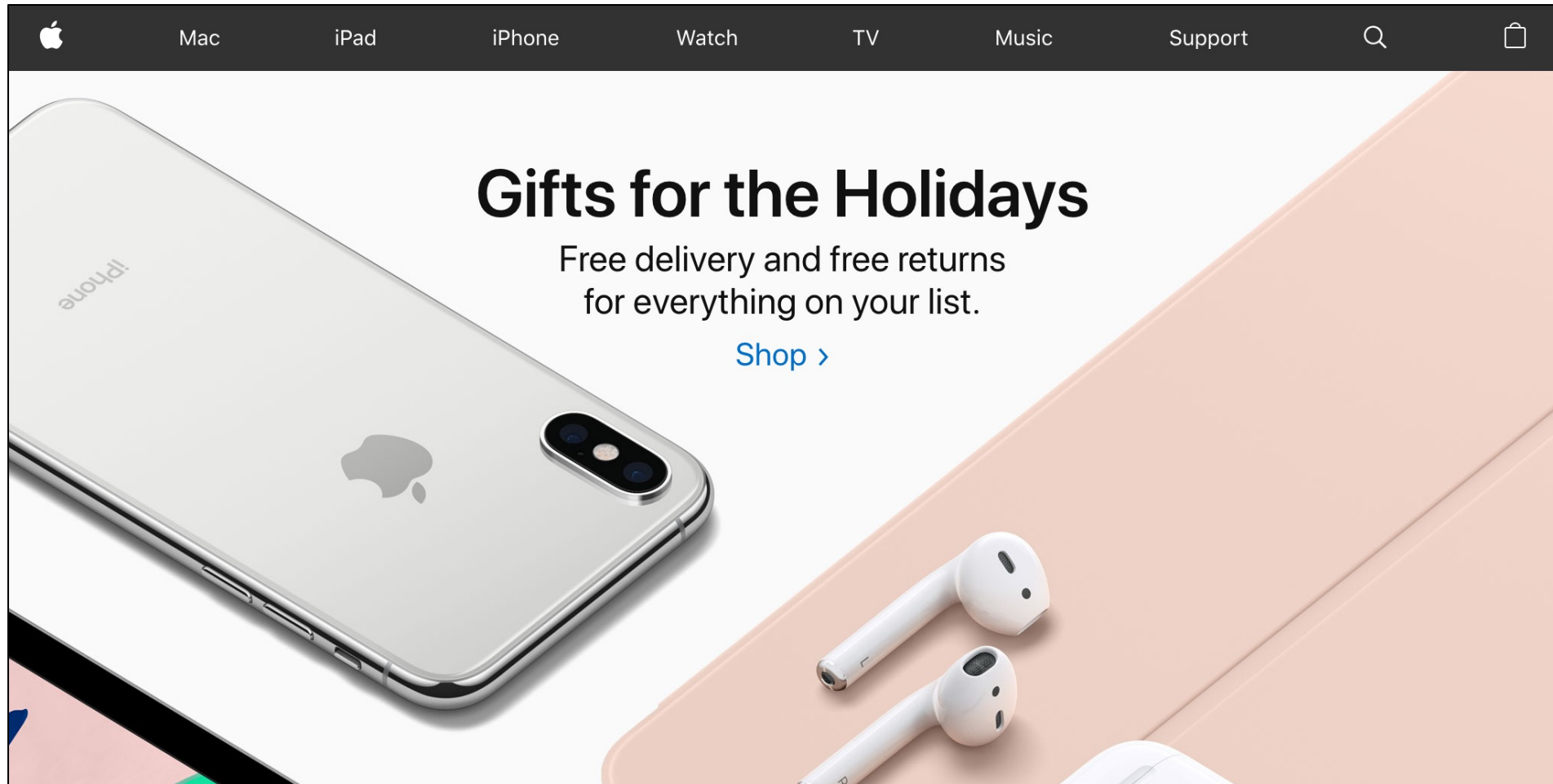
Sperry JL, Moore EE, Coimbra R, et al. Western Trauma Association critical decisions in trauma: penetrating neck trauma. J Trauma Acute Care Surg. 2013;75(6):936–940



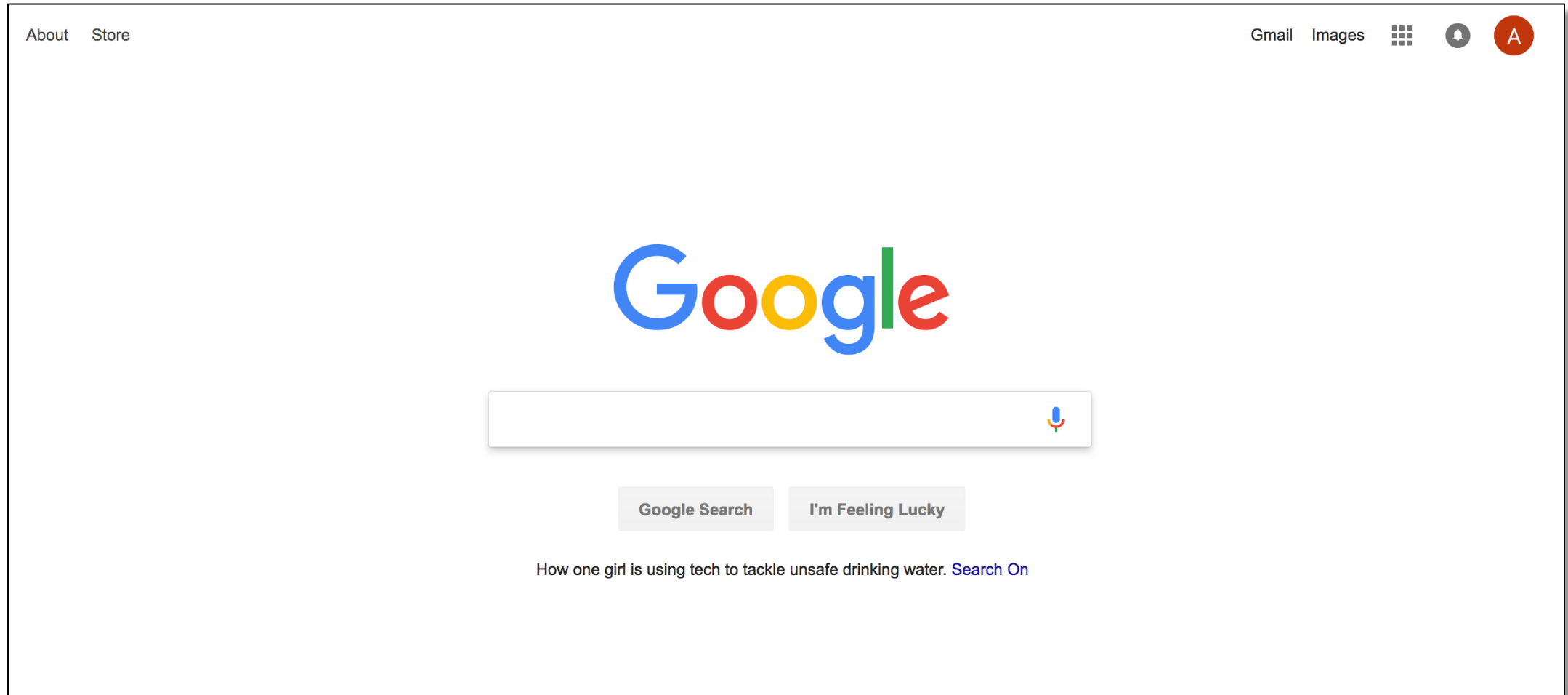
Creative is Good... right?



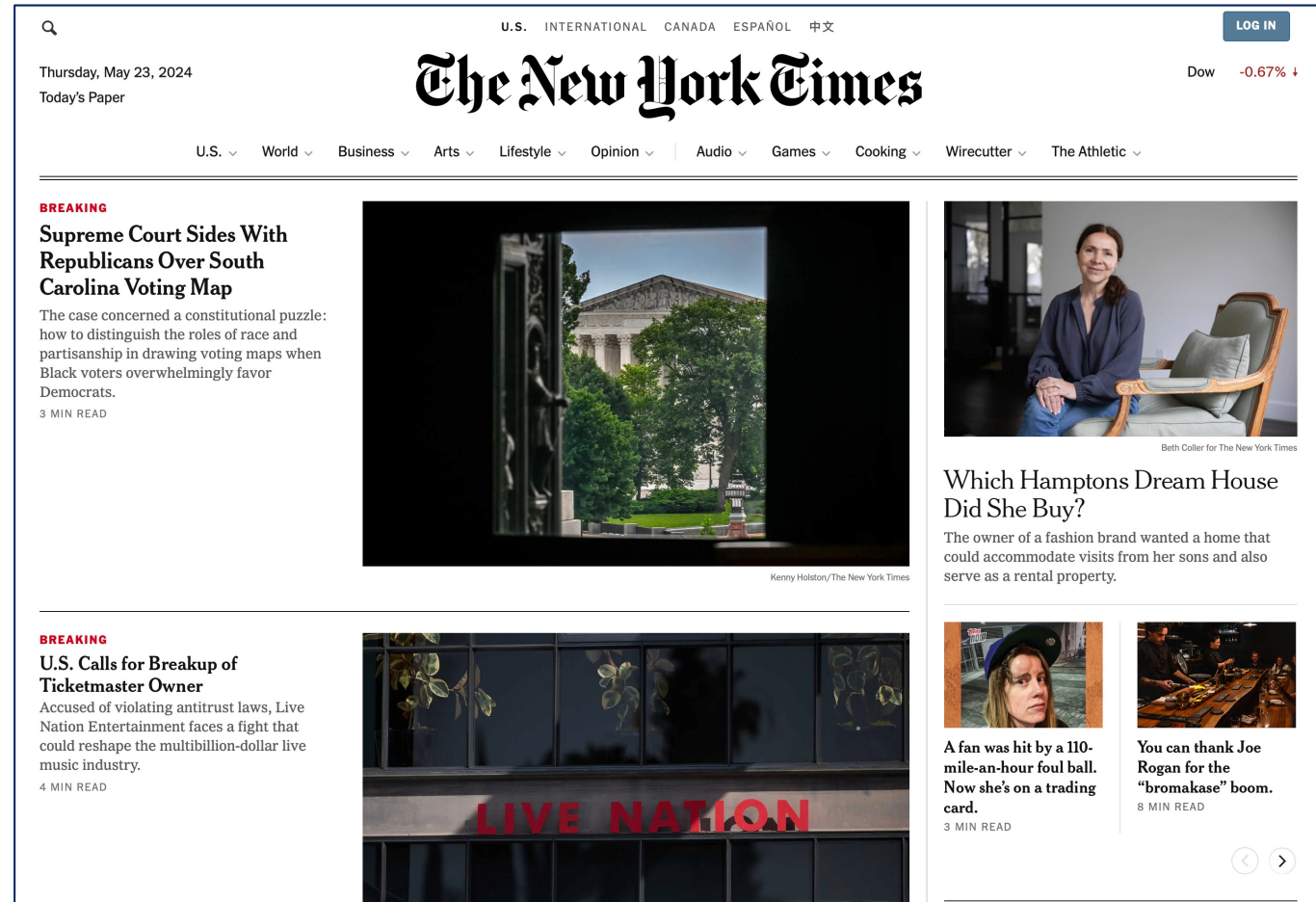
RELEVANT CREATIVITY



RELEVANT CREATIVITY



RELEVANT CREATIVITY



RELEVANT CREATIVITY

BBCWatch LiveRegisterSign In

Home **News** Sport Business Innovation Culture Travel Earth Video Live

NEWS

China holds military drills around Taiwan as 'strong punishment'

The military manoeuvres come three days after William Lai was sworn in as Taiwan's president.

5 hrs ago | **NEWS** Asia





LIVE UK party leaders make election pitches as 4 July campaign begins

PM Rishi Sunak and Labour leader Keir Starmer are travelling around the UK the day after the election date was announced.

NEWS



Rosenberg: Putin's military purge echoes Prigozhin's call to act

Russia's president seems to be acting on the late Wagner chief's warnings, but in his own time.

3 hrs ago | **NEWS** Europe



Cassie posts first statement since Diddy footage

Footage emerged last week which showed rapper Diddy attacking the singer in 2016.

42 mins ago **NEWS**



US to sue Ticketmaster owner Live Nation

Officials are expected to challenge the company's business practices, the BBC's US partner CBS News reported.

11 hrs ago **NEWS**



Atlantic to get 'extraordinary' hurricane season

There could be up to seven major hurricanes of category three or higher this season, many more than usual.

38 mins ago | **NEWS** Climate

Child among at least nine dead at Mexico election rally

Part of the stage toppled over in high winds at an event for presidential candidate Jorge Alvarez Maynez.

8 hrs ago | **NEWS** Latin America

► **Mahomes and Reid defend Butker after 'homemaker' comments**

Kansas City Chiefs quarterback Patrick Mahomes and head coach Andy Reid defend Harrison Butker after his controversial comments earlier this month.

22 mins ago | American Football

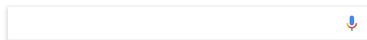


RELEVANT CREATIVITY



RELEVANT CREATIVITY | Common Ground?

About Store



Google Search I'm Feeling Lucky

How one girl is using tech to tackle unsafe drinking water. [Search On](#)

Gmail Imag



Thursday, November 15, 2018

ENGLISH ESPAÑOL 中文 (CHINESE)
The New York Times

SUBSCRIBE NOW

LOG IN

World U.S. Politics N.Y. Business Opinion Tech Science Health Sports Arts Books Style Food Travel Magazine T Magazine Real Estate Video



Your Evening Briefing
Here's what you need to know at the end of the day.

Listen to 'The Daily'
A conversation with a freshman Democrat.

In the 'Climate Fwd.' Newsletter
Can we build a better air-conditioner?

35°F 35°-39°
Brighton, MI
Nasdaq +1.72% ↑

POLITICS

Recount Ordered in Florida Senate Race as Republican Holds Lead for Governor

- Florida concluded the first phase of a tumultuous recount, and Ron DeSantis, the Republican, appeared on track to win the governor's race.
- Meanwhile, state officials ordered a manual recount for a hotly contested Senate seat.

1h ago



Opinion >

WATCH: THREE-PART SPECIAL VIDEO SERIES



EPISODE 3
The Worldwide War on Truth



U.S. | World | Politics | Business | Opinion | Health | Entertainment

Florida county recounts votes for nothing



Broward County recounted hundreds of thousands of votes only to be rejected after delivering them 2 minutes late

Florida's Senate race heads to a hand recount

Analysis: The dirty little secret of the Florida recounts

Like him or not, Trump is why America voted >

A House seat goes to Democrats in a first-of-its-kind voting process in Maine

Harry Enten: We're seeing a huge blue wave >

Top

Wh
cei

Jud
over

Ana
inter

Coo

WaF

US

Berr

Ana

for

Opir

own

IDEO

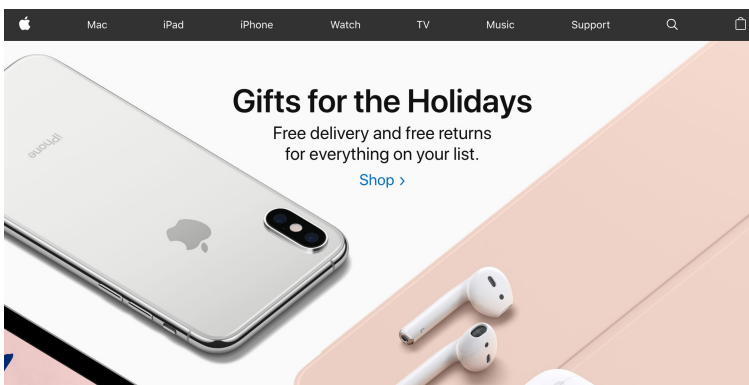
Work Blog Tools



IDEO is a global design company. We create positive impact through design.

[WANT TO TALK?](#)

[CONTACT US](#)



Gifts for the Holidays

Free delivery and free returns for everything on your list.

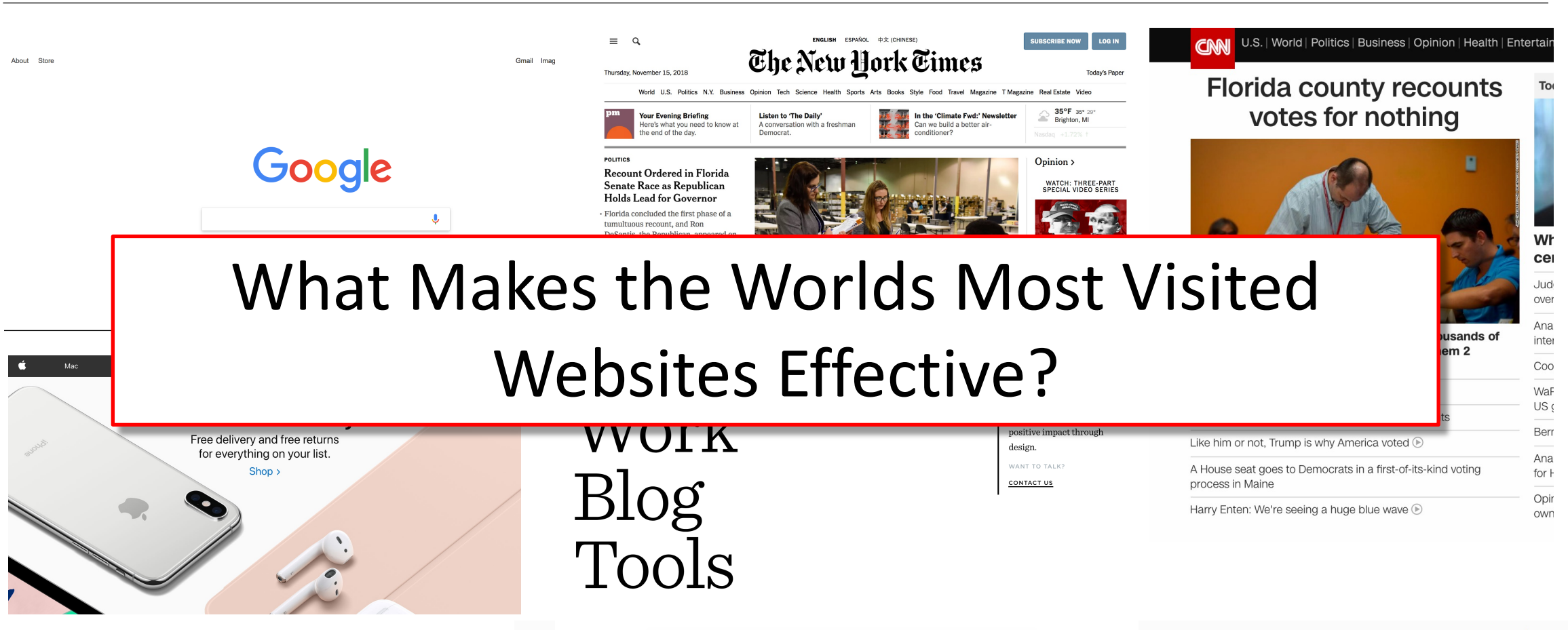
[Shop >](#)



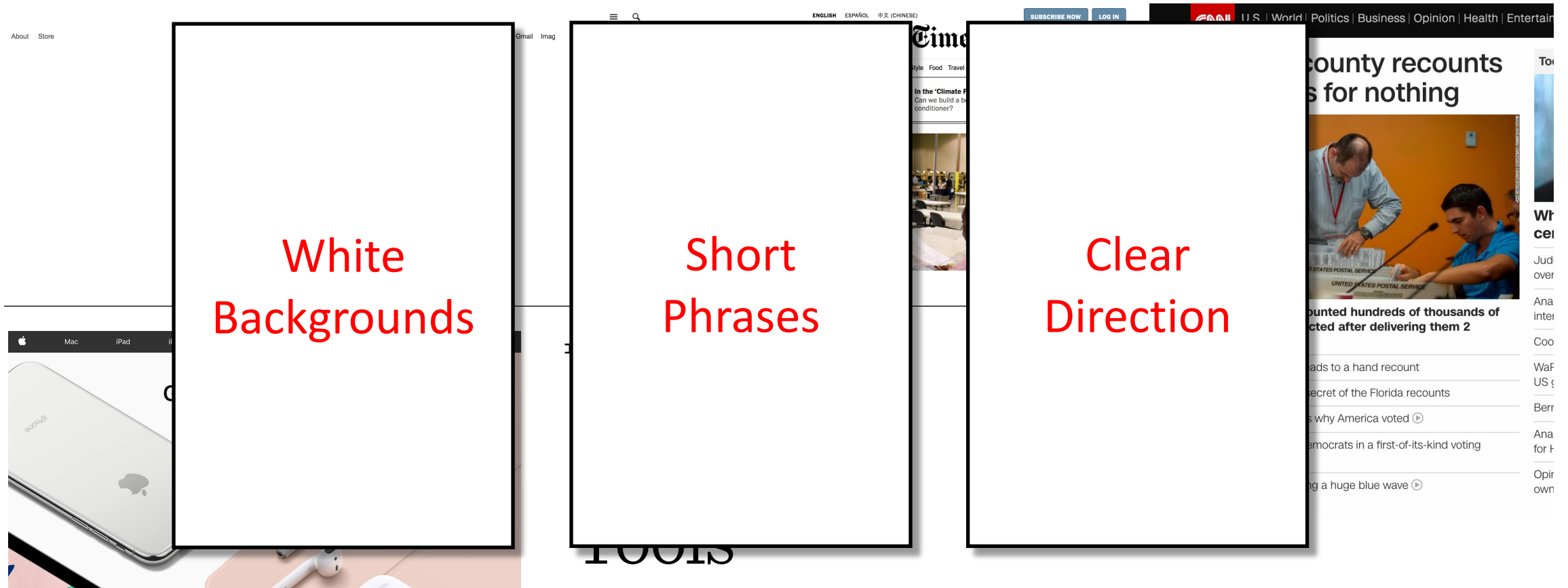
CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

RELEVANT CREATIVITY | Common Ground?



RELEVANT CREATIVITY | Common Ground?



EASY DESIGN WINS TO MAKE YOUR POSTERS BETTER



White
Backgrounds



Clear
Direction



Clarity Over
Completeness



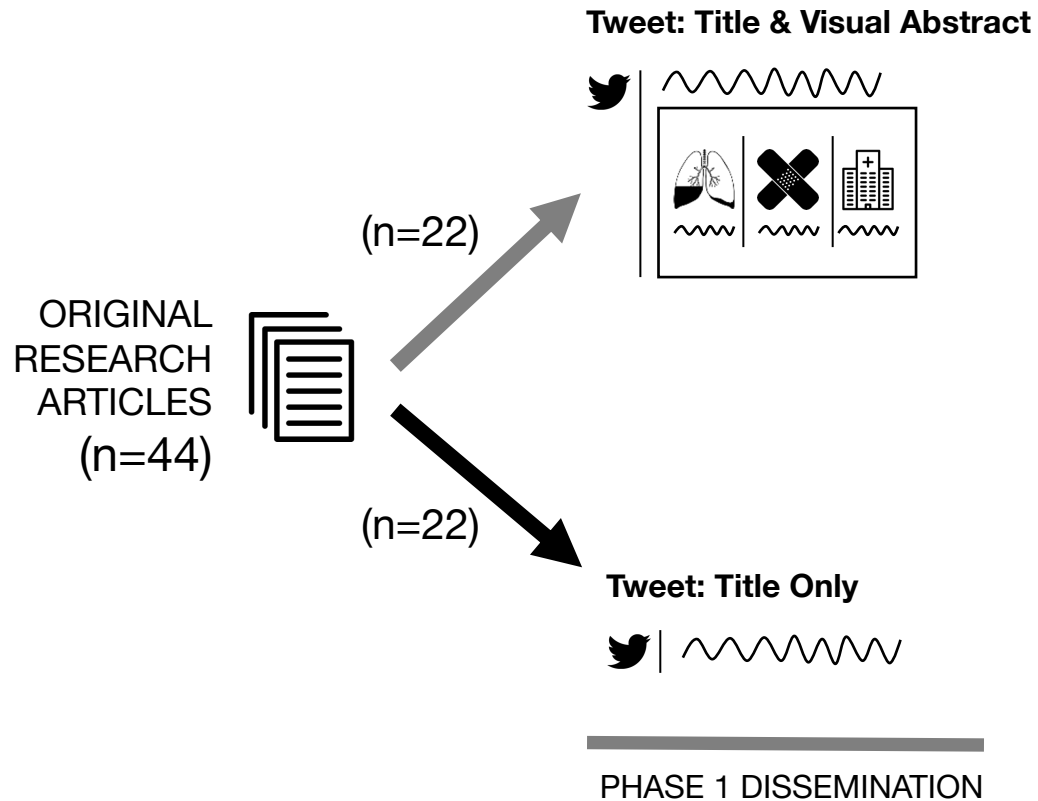
End-User
Focused



PUTTING DESIGN PRINCIPALS INTO PRACTICE



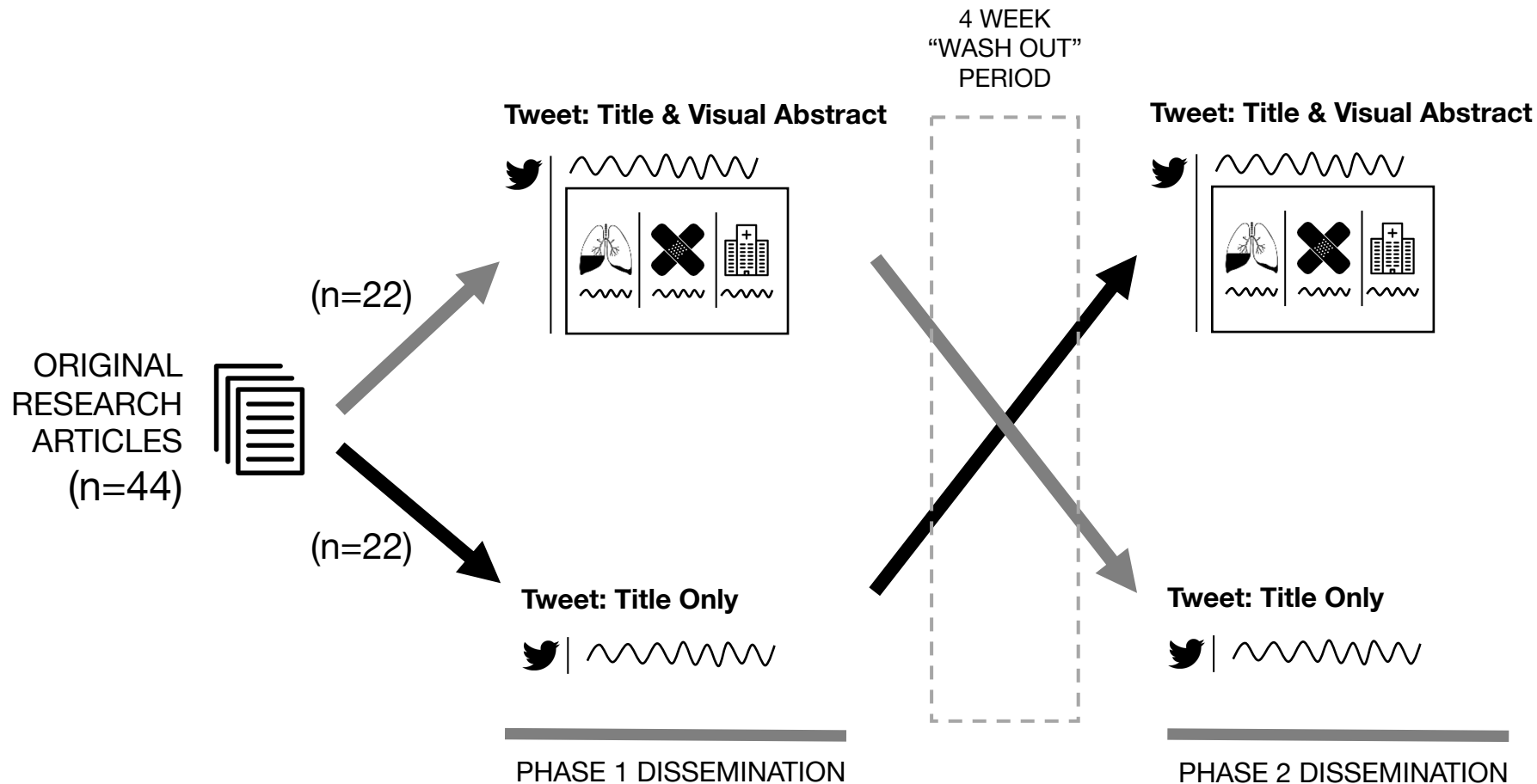
RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter



Ibrahim et al. Ann Surg. 2017



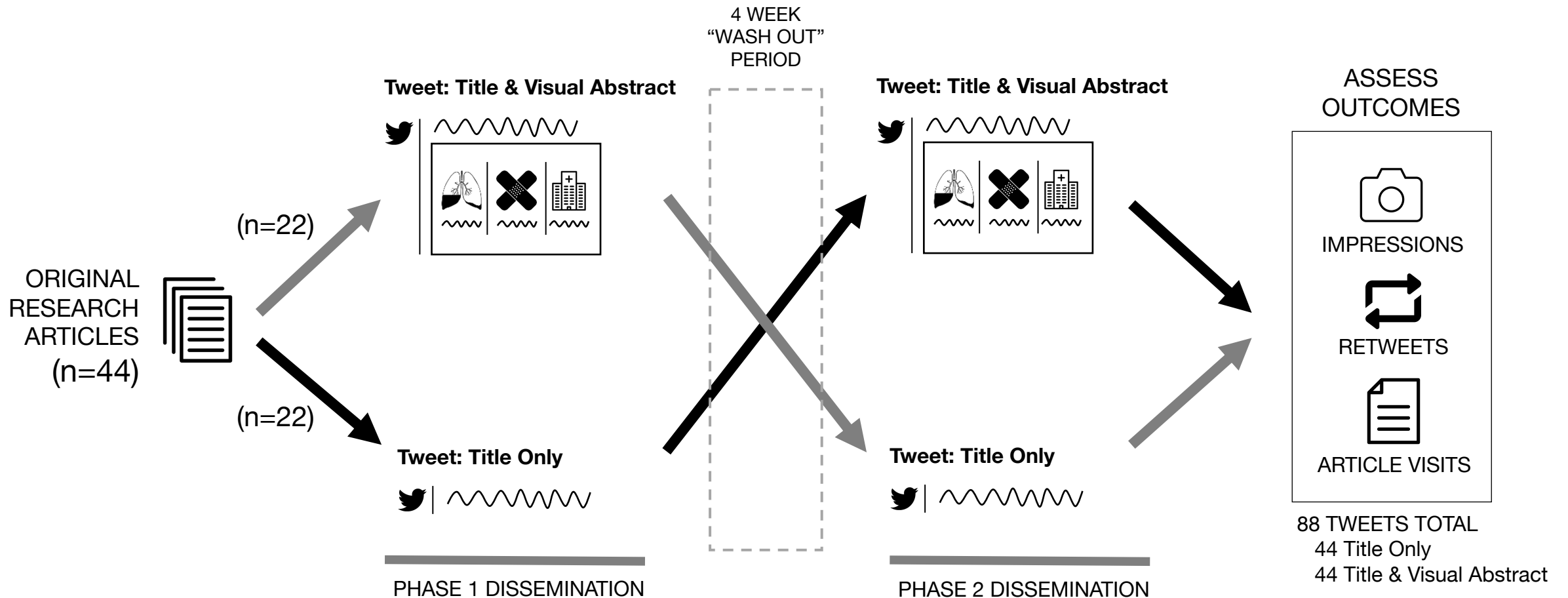
RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter



Ibrahim et al. Ann Surg. 2017



RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter

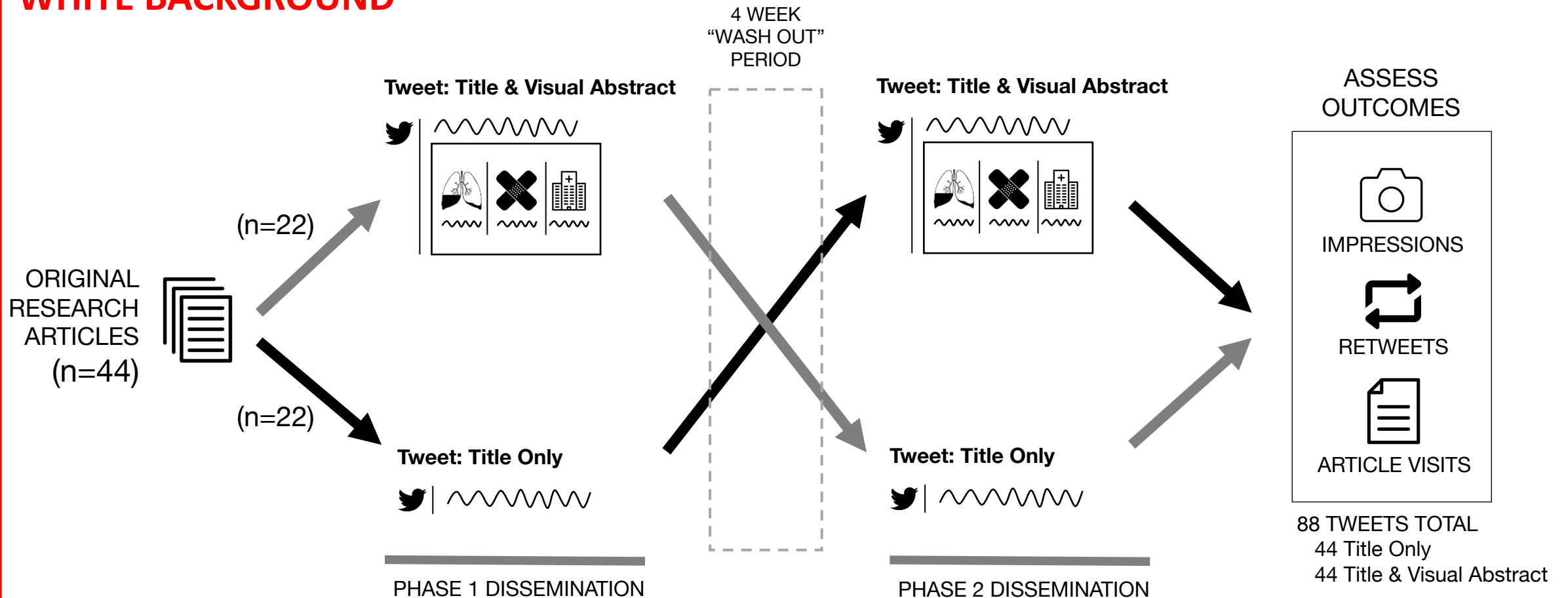


Ibrahim et al. Ann Surg. 2017



RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter

WHITE BACKGROUND

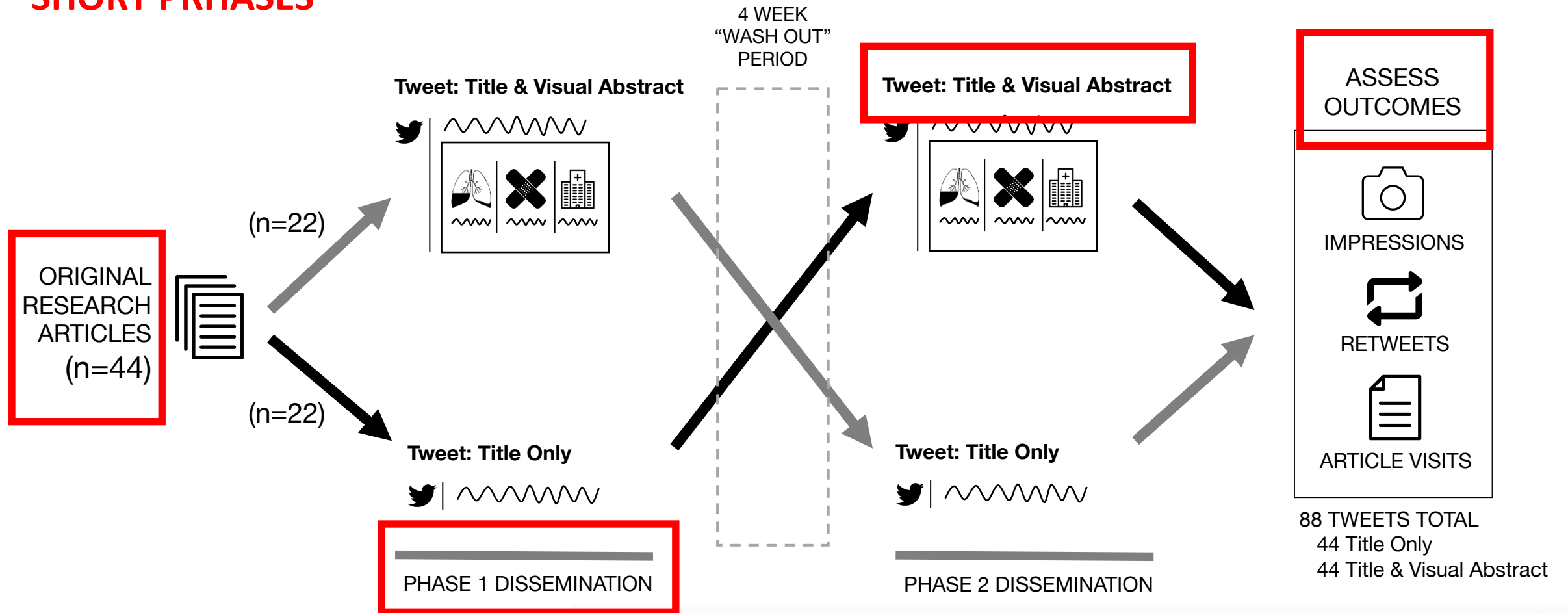


Ibrahim et al. Ann Surg. 2017



RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter

SHORT PRHASES

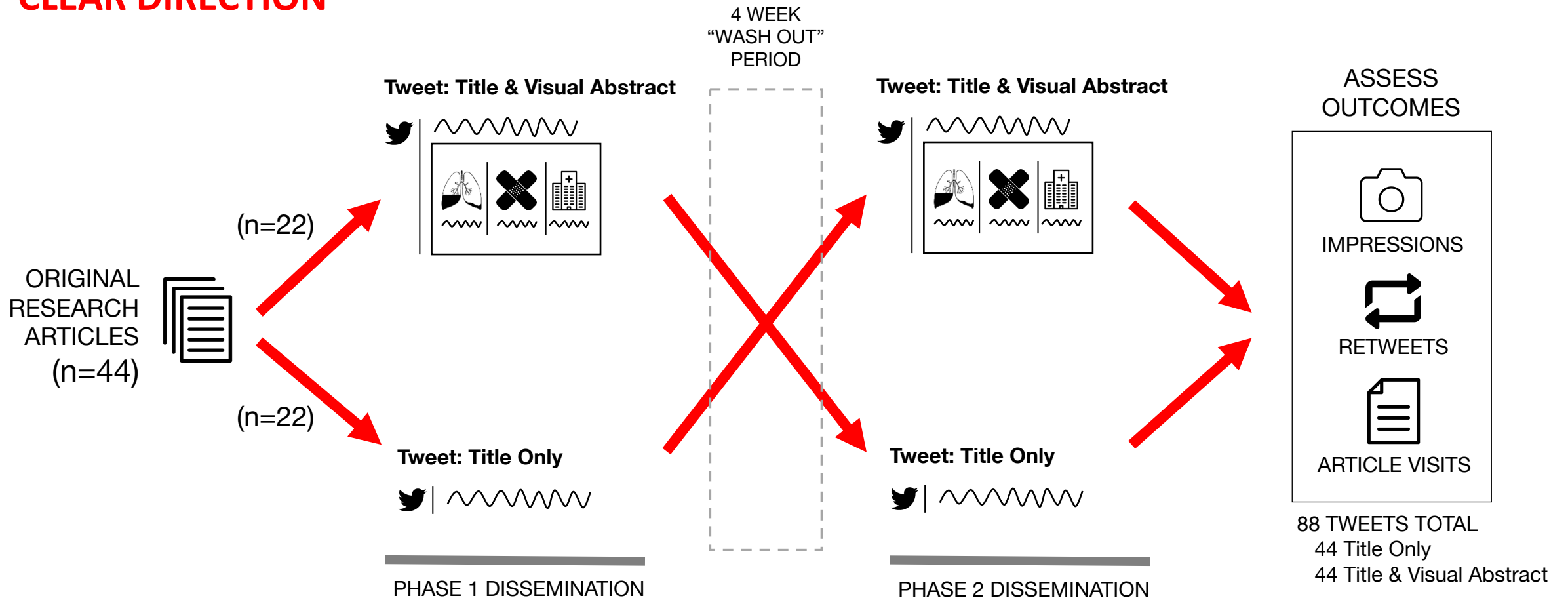


Ibrahim et al. Ann Surg. 2017



RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter

CLEAR DIRECTION

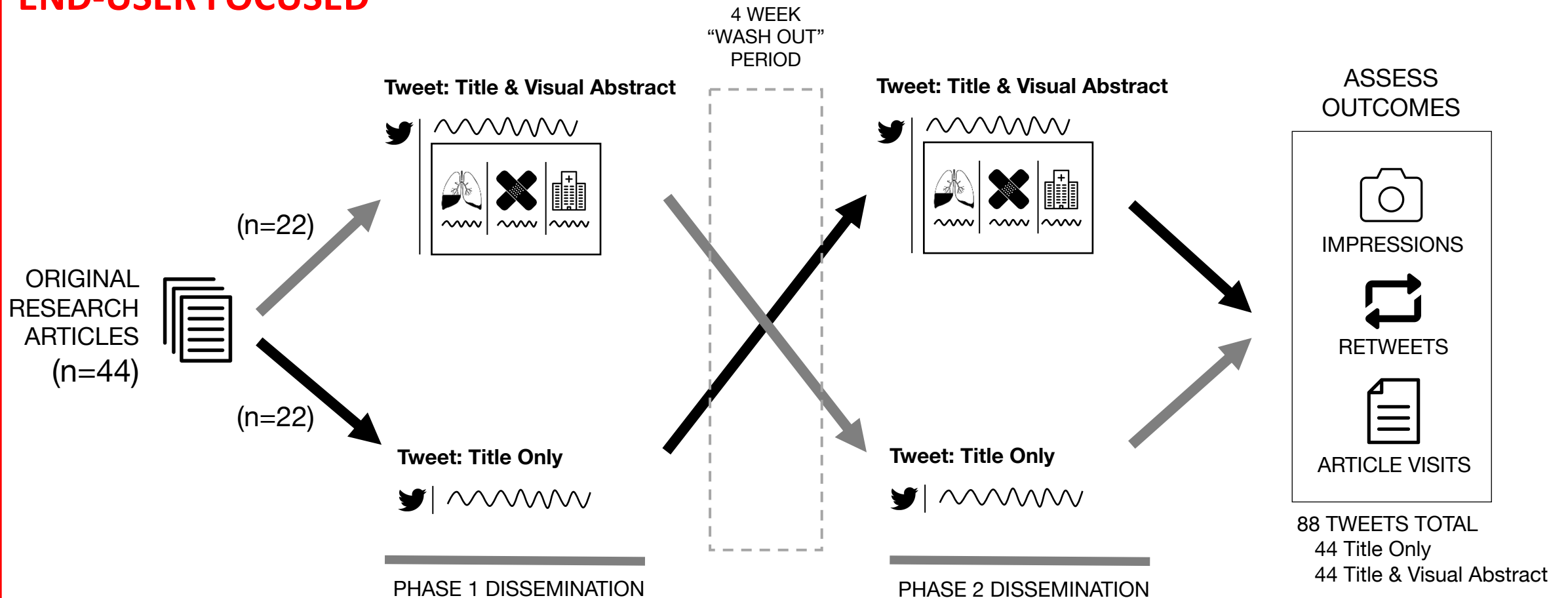


Ibrahim et al. Ann Surg. 2017



RCT Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter

END-USER FOCUSED



Ibrahim et al. Ann Surg. 2017



APPLYING TO POSTERS

at AcademyHealth



POSTER TITLE

Authors & Institutions



ANNUAL RESEARCH MEETING

RESEARCH OBJECTIVE

Copy and paste your text content here, adjusting the font size to fit into the textbox.

POPULATION STUDIED

Copy and paste your text content here, adjusting the font size to fit into the textbox.

PRINCIPAL FINDINGS

Copy and paste your text content here, adjusting the font size to fit into the textbox.

ACKNOWLEDGEMENTS

Copy and paste your text content here, adjusting the font size to fit into the textbox.

STUDY DESIGN

Copy and paste your text content here, adjusting the font size to fit into the textbox.

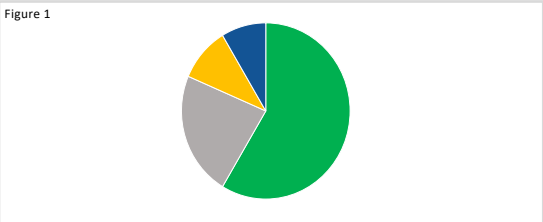


Table 1

Table 2

Copy and paste your text content here, adjusting the font size to fit into the textbox.

REFERENCES

Copy and paste your text content here, adjusting the font size to fit into the textbox.

IMPLICATIONS FOR POLICY AND PRACTICE

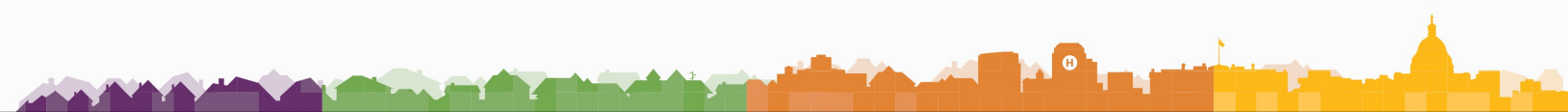
Copy and paste your text content here, adjusting the font size to fit into the textbox.

CONCLUSION

Copy and paste your text content here, adjusting the font size to fit into the textbox.

CONTACT INFORMATION

Copy and paste your text content here, adjusting the font size to fit into the textbox.



Evaluating the Hospital Readmissions Reductions Program: Impact of the Hospital Readmission Reduction Program on Surgical Readmissions Among Medicare Beneficiaries



ANNUAL RESEARCH MEETING

Ibrahim, Andrew M. MD, MSc; Nathan, Hari MD, PhD; Thumma, Jyothi R. MPH; Dimick, Justin B. MD, MPH. University of Michigan

RESEARCH OBJECTIVE

The Hospital Readmission Reduction Program, established under the Affordable Care Act in March of 2010, placed financial penalties on hospitals with higher than expected rates of readmission beginning in 2012 for targeted medical conditions. Multiple studies have suggested a “spill-over” effect into other conditions, but the extent of that effect for specific surgical procedures is unknown.

POPULATION STUDIED

A retrospective review 5,122,240 Medicare beneficiaries who underwent future targeted procedures (total hip replacement, total knee replacements) or nontargeted procedures (colectomy, lung resection, abdominal aortic aneurysm repair, coronary artery bypass graft, aortic valve replacement, mitral valve repair) using an interrupted time series model to assess the rates of readmission before the Hospital Readmission Reduction Program was announced (2008–2010), whereas the program was being implemented (2010–2012) and after penalties were initiated (2012–2014). We also explored if the change in readmission rates were correlated with changes in index length of stay, use of observation status, or discharge to a skilled nursing facility

PRINCIPAL FINDINGS

From 2008 to 2014 rates of readmission declined for both target conditions (6.8%–4.8%; slope change -0.07 to -0.10 , $P < 0.001$) and nontarget conditions (17.1%–13.4%; slope change -0.04 to -0.11 , $P < 0.001$). The rate of reduction was most prominent after announcement of the program between 2010 and 2012 for both targeted and nontargeted conditions. During the same time period, mean hospital length of stay decreased; nontargeted conditions (10.4–8.4 days) and targeted conditions (3.6–2.8 days). There was no correlation between hospital reduction in readmissions and use of observation-only admissions (Pearson correlation coefficient = 0.01) or discharge to a skilled nursing facility (Pearson correlation coefficient = 0.05).

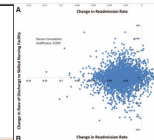
ACKNOWLEDGEMENTS

A.M.I. acknowledges funding from the Robert Wood Johnson Foundation and the United States Department of Veterans Affairs supporting his role as a Robert Wood Johnson Clinical Scholar. H.N. acknowledges funding from the Agency for Healthcare Research and Quality under award number K08HS024763-01. J.B.D. acknowledges funding from the National Institute of Aging of the National Institute of Health under award number R01AG039434-04.

STUDY DESIGN

	All Patients	Least Improved Readmission Rates	Most Improved Readmission Rates	P
No. patients	5,122,240	1,305,285	1,183,247	
Age (mean (SD), yr)	74.48 (6.49)	74.45 (6.49)	74.47 (6.51)	0.176
Male (%)	43.3	43.4	42.6	<0.0001
White (%)	90.3	90.6	89.7	<0.0001
Black (%)	6.1	5.7	6.7	<0.0001
Comorbidities (%)				
Hypertension	69.6	69.2	70.3	<0.0001
Diabetes	20.2	20.4	20.6	0.0002
Chronic pulmonary disease	17.6	17.2	18.1	<0.0001
Fluid and electrolyte disorders	15.5	14.3	16.4	<0.0001
Hypothyroidism	15.2	15.2	15.2	0.605
Deficiency anemias	14.1	13.7	15.1	<0.0001
Obesity	13.0	12.5	13.2	<0.0001
Depression	8.2	7.9	8.4	<0.0001
Renal failure	7.7	7.7	7.7	<0.0001
Peripheral vascular disease	7.2	6.8	7.2	<0.0001
Congestive heart failure	5.1	4.5	5.5	<0.0001
Congestive heart failure	4.1	4.0	4.4	<0.0001
Valvular disease	4.0	3.7	4.1	<0.0001
Weight loss	3.2	3.1	3.4	<0.0001
Melanocytic cancer	2.9	3.0	3.0	0.424
Chronic blood loss anemia	1.8	1.7	1.9	<0.0001
Solid tumor	1.6	1.5	1.6	<0.0001
Psychoses	1.5	1.4	1.5	<0.0001
Liver disease	0.8	0.7	0.8	<0.0001
Paralysis	0.6	0.6	0.7	<0.0001
Lymphoma	0.5	0.5	0.5	<0.0001
Alcohol abuse	0.3	0.3	0.3	0.195
Drug abuse	0.0	0.1	0.0	0.0002
Exclusion rate of comorbidities (%)				
0	9.5	10.1	8.9	<0.0001
1	24.7	25.6	24.1	<0.0001
2	65.8	64.4	67.1	<0.0001
Minimally invasive surgery (%)	39.5	37.9	38.4	0.0002
Discharge destination (%)				
Home	67.4	65.4	68.9	<0.0001
Skilled nursing facility	29.8	32.0	28.0	<0.0001
Died	1.7	1.7	1.8	<0.0001
Hospice	0.3	0.3	0.4	0.0002
Transferred	0.5	0.4	0.5	<0.0001
Other	0.2	0.2	0.4	<0.0001

*Minimally invasive versus open surgery among patients who received colectomy, lung resection, or abdominal aortic aneurysm repair.
SD indicates standard deviation.



REFERENCES

1. Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. *N Engl J Med* 2009; 360:1418–1428. [Cited Here](#) | [View Full Text](#) | [PubMed](#) | [CrossRef](#)
2. Wasfy JH, Zigler CM, Choirat C, et al. Readmission rates after passage of the Hospital Readmissions Reduction Program: a pre-post analysis. *Ann Intern Med* 2017; 166:324–331. [Cited Here](#) | [View Full Text](#) | [PubMed](#) | [CrossRef](#)
3. Zuckerman RB, Sheingold SH, Orav EJ, et al. Readmissions, observation, and the Hospital Readmissions Reduction Program. *N Engl J Med* 2016; 374:1543–1551.

IMPLICATIONS FOR POLICY AND PRACTICE

Our findings have important policy and practice implications related to readmissions and surgical procedures. First, for payers, this study supports the focus on readmissions as a meaningful quality metric that can be incentivized. As the *Hospital Readmissions Reduction Program* expands to additional conditions, more attention will be needed around identifying truly preventable readmissions in surgical cohorts^{17,25} and accounting for possible socioeconomic confounders. Second, for providers and hospitals administrators, these findings should be encouraging. The efforts to reduce readmissions for targeted conditions seem to have a sizeable impact on those procedures, and additional procedures that were not targeted. Finally, for patients these findings should mark another example of payers and providers attempting to align incentives that ultimately delivers higher quality care.

CONCLUSION

Trends in readmissions after inpatient surgery are consistent with hospitals responding to financial incentives announced in the Hospital Readmission Reduction Program. There appears to be both an anticipatory effect (future targeted procedures reducing readmission before payments implemented) and a spillover effect (nontargeted procedures also reducing readmissions).

CONTACT INFORMATION

Center for Healthcare Outcomes and Policy, University of Michigan, Ann Arbor, MI.

Andrew M. Ibrahim, MD, MSc, Robert Wood Johnson Clinical Scholar (VA Scholar), Institute for Healthcare Policy and Innovation, University of Michigan, 2800 Plymouth Ave, Bldg 10-G016, Ann Arbor, MI 48109-2800. E-mail: andrew@umich.edu.



CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

Rethink Your Poster as Invitation



You will be there for a conversation!



POSTER TITLE

Authors & Institutions



ANNUAL RESEARCH MEETING

RESEARCH OBJECTIVE

Copy and paste your text content here, adjusting the font size to fit into the textbox.

POPULATION STUDIED

Copy and paste your text content here, adjusting the font size to fit into the textbox.

PRINCIPAL FINDINGS

Copy and paste your text content here, adjusting the font size to fit into the textbox.

ACKNOWLEDGEMENTS

Copy and paste your text content here, adjusting the font size to fit into the textbox.

STUDY DESIGN

Copy and paste your text content here, adjusting the font size to fit into the textbox.

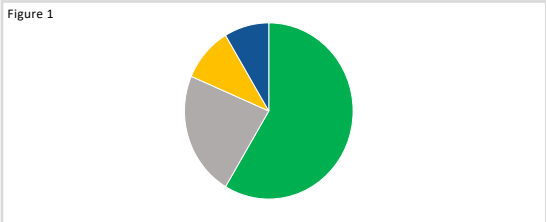


Table 1

Table 2

Copy and paste your text content here, adjusting the font size to fit into the textbox.

REFERENCES

Copy and paste your text content here, adjusting the font size to fit into the textbox.

IMPLICATIONS FOR POLICY AND PRACTICE

Copy and paste your text content here, adjusting the font size to fit into the textbox.

CONCLUSION

Copy and paste your text content here, adjusting the font size to fit into the textbox.

CONTACT INFORMATION

Copy and paste your text content here, adjusting the font size to fit into the textbox.



Simplify Your Format...



Did Readmissions Decline for Surgery?

Andrew M. Ibrahim MD, MSc | University of Michigan



ANNUAL
RESEARCH MEETING

WHY STUDY READMISSIONS?

KEY QUESTIONS AND FINDINGS

IMPLICATIONS FOR POLICY

POLICY BEING EVALUATED

CONTACT INFORMATION

DATA & COHORT



CENTER FOR HEALTHCARE
OUTCOMES & POLICY



@andrewmibrahim

Think of the Sections More like
Slides than Paragraphs



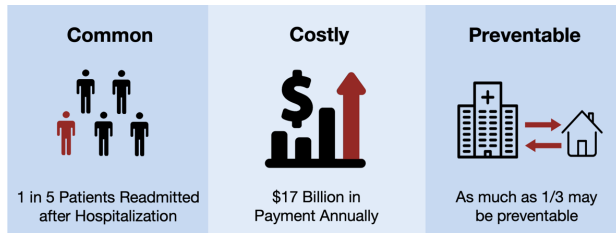
Did Readmissions Decline for Surgery?



ANNUAL
RESEARCH MEETING

Andrew M. Ibrahim MD, MSc | University of Michigan

WHY STUDY READMISSIONS?

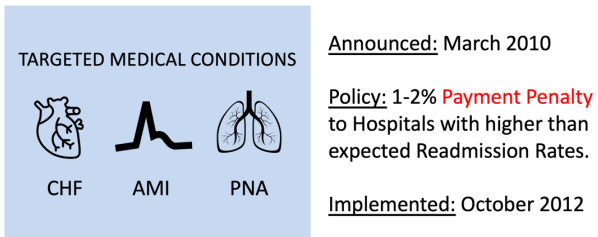


KET QUESTIONS AND FINDINGS

IMPLICATIONS FOR POLICY

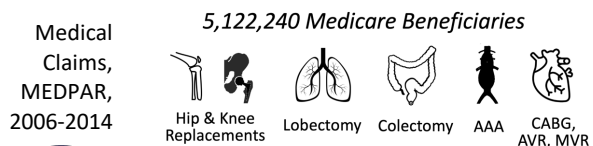
POLICY BEING EVALUATED

CMS: Hospital Readmissions Reduction Program



CONTACT INFORMATION

DATA & COHORT



CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

Connect Questions to Findings
(ideally with figures!)



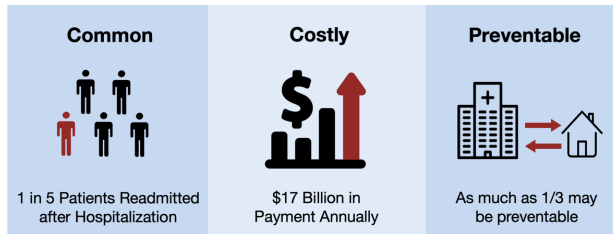
Did Readmissions Decline for Surgery?



ANNUAL
RESEARCH MEETING

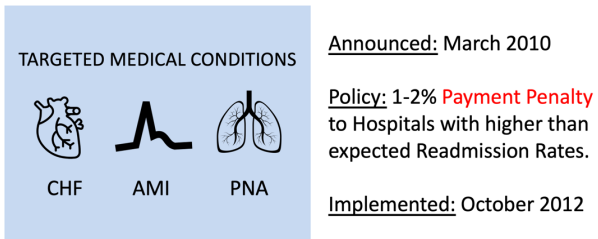
Andrew M. Ibrahim MD, MSc | University of Michigan

WHY STUDY READMISSIONS?

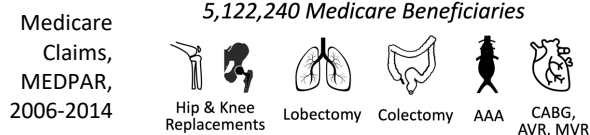


POLICY BEING EVALUATED

CMS: Hospital Readmissions Reduction Program

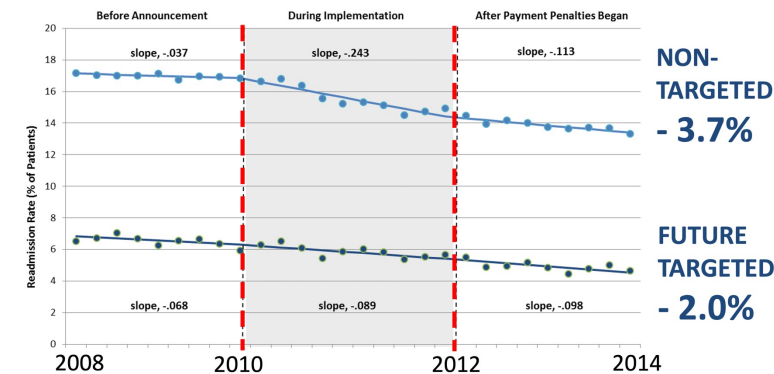


DATA & COHORT

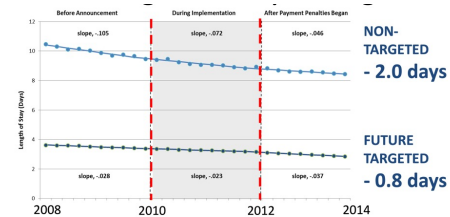


KEY QUESTIONS AND FINDINGS

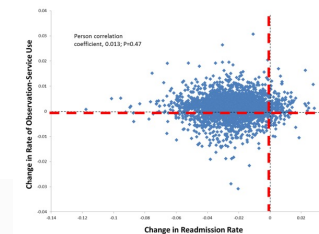
1 Did Surgical Readmissions Go Down? Yes.



2 Did Length of Stay Change? It went Down.



3 Correlation with Observation Use? No.



IMPLICATIONS FOR POLICY

CONTACT INFORMATION



CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

Invite a Conversation...



Did Readmissions Decline for Surgery?



ANNUAL
RESEARCH MEETING

Andrew M. Ibrahim MD, MSc | University of Michigan

WHY STUDY READMISSIONS?

Common



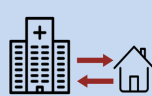
1 in 5 Patients Readmitted after Hospitalization

Costly



\$17 Billion in Payment Annually

Preventable



As much as 1/3 may be preventable

POLICY BEING EVALUATED

CMS: Hospital Readmissions Reduction Program

TARGETED MEDICAL CONDITIONS



CHF AMI PNA

Announced: March 2010

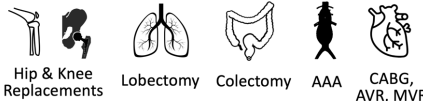
Policy: 1-2% **Payment Penalty** to Hospitals with higher than expected Readmission Rates.

Implemented: October 2012

DATA & COHORT

Medicare
Claims,
MEDPAR,
2006-2014

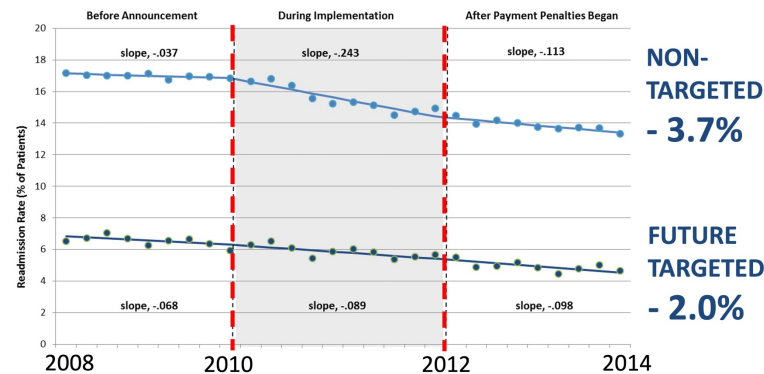
5,122,240 Medicare Beneficiaries



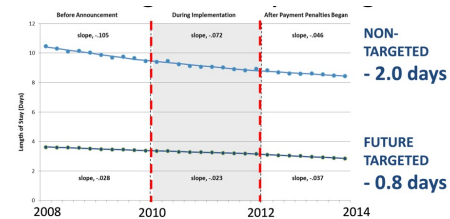
CENTER FOR HEALTHCARE
OUTCOMES & POLICY

KEY QUESTIONS AND FINDINGS

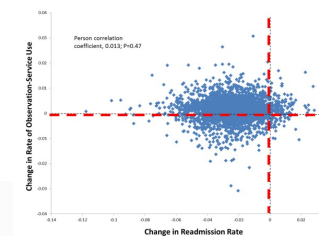
1 Did Surgical Readmissions Go Down? Yes.



2 Did Length of Stay Change? It went Down.



3 Correlation with Observation Use? No.



IMPLICATIONS FOR POLICY



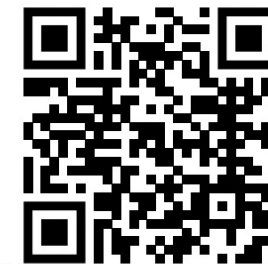
Hospitals Responded to Financial Incentives to Reduce Readmissions



Impact on both medical and surgical conditions likely reflects broad system wide changes

Unclear if surgery has a "readmission floor"

CONTACT INFORMATION



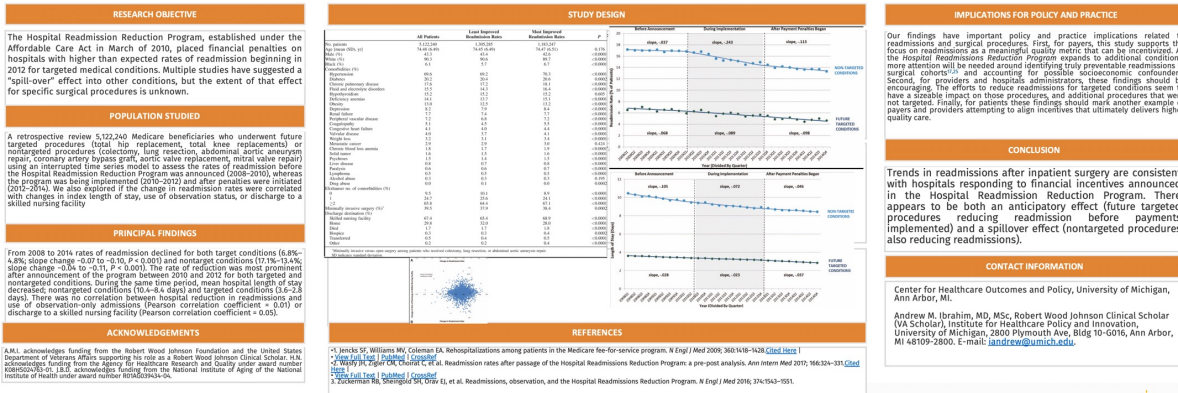
Andrew M. Ibrahim MD, MSc
landrew@umich.edu

@andrewmibrahim

Where Will You Stop for a Conversation?

Evaluating the Hospital Readmissions Reductions Program: Impact of the Hospital Readmission Reduction Program on Surgical Readmissions Among Medicare Beneficiaries

Ibrahim, Andrew M. MD, MSc; Nathan, Hari MD, PhD; Thumma, Jyothi R. MPH; Dimick, Justin B. MD, MPH. University of Michigan

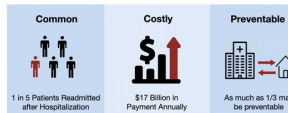


Did Readmissions Decline for Surgery?

Andrew M. Ibrahim MD, MSc | University of Michigan

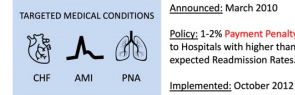


WHY STUDY READMISSIONS?

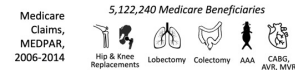


POLICY BEING EVALUATED

CMS: Hospital Readmissions Reduction Program

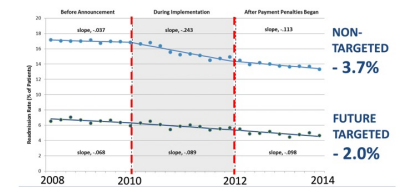


DATA & COHORT

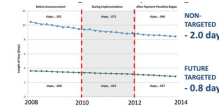


KEY QUESTIONS AND FINDINGS

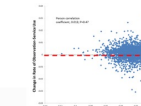
1 Did Surgical Readmissions Go Down? Yes.



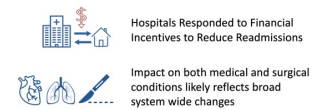
2 Did Length of Stay Change? It Went Down.



3 Correlation with Observation Use? No.



IMPLICATIONS FOR POLICY



Unclear if surgery has a "readmission floor"

CONTACT INFORMATION



Andrew M. Ibrahim MD, MSc
andrew@umich.edu

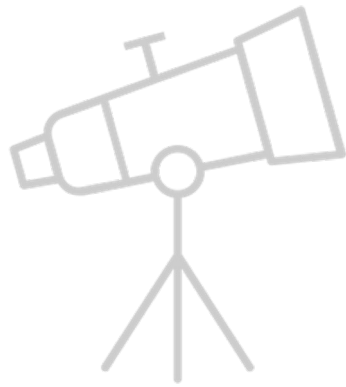


CENTER FOR HEALTHCARE
OUTCOMES & POLICY

@andrewmibrahim

Goals for Today

Conference
PERSPECTIVE



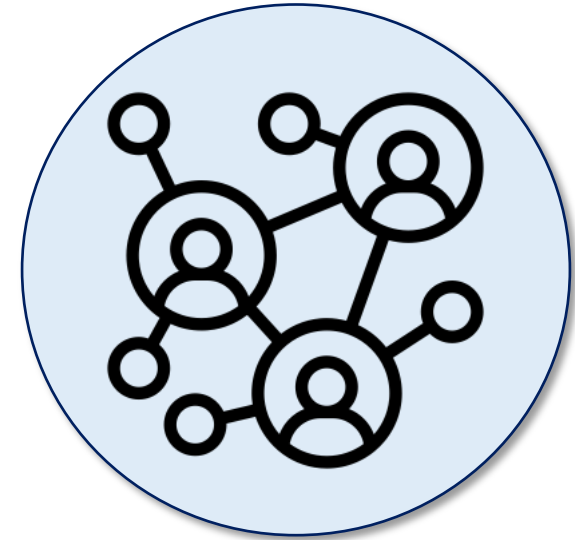
What to Expect!
& how to Navigate

Harness
DESIGN TOOLS



Make Your Work
More Engaging

Build a
COMMUNITY



Connect Before
the Meeting Starts





Questions?

iandrew@umich.edu

