



COMMONWEALTH  
**PHARMACISTS**  
ASSOCIATION

World Antimicrobial Awareness Week 2021 Metrics Report

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CIO REGISTERED CHARITY NUMBER: 1176132

## World Antimicrobial Awareness Week 2021 Metrics Report

### Overview

World Antimicrobial Awareness Week (WAAW) takes place annually between the 18<sup>th</sup> to 24<sup>th</sup> of November. The aim of World Antimicrobial Awareness Week is to improve the understanding of what antimicrobial medicines are and how their misuse and overuse in humans, animals and the environment are accelerating the speed at which microbes (i.e. germs) are adapting to resist their effect. The most widely recognised antimicrobial medication being antibiotics which treat infections and diseases caused by bacteria.

This year's WAAW theme which was announced by the World Health Organisation (WHO) was: "Spread awareness, stop resistance" with the slogan remaining as "Antimicrobials: Handle with care." In addition, individuals and organisations participating in WAAW were encouraged to "Go Blue" in support of the AMR Tripartite (FAO, OIE and WHO) vision for tackling AMR using a One Health approach. (1) In support of this, the Commonwealth Pharmacists Association (CPA) developed a campaign which focused on the important role of pharmacists in each of these One Health realms, including those working in veterinary medicine. The CPA also spread awareness around the role of pharmacists adding value to improved sanitation (WASH) including through the production of alcohol-based hand sanitisers, monitoring the spread of AMR and acting as beacons of trustworthy information for patients and the public.

### Methods

Both hashtags **#CPApharm** and **#CwPAMS** were assigned to the World Antimicrobial Awareness Week campaign. The target audience was predominantly pharmacists working in the Commonwealth, but communication materials were designed in plain language so that it was equally accessible to patients and the public as well as health professionals (HCPs), community health workers (CHWs), farmers, veterinarians, and animal health workers not familiar with the concept of antimicrobial resistance (AMR) and antimicrobial stewardship (AMS), thus addressing campaign implementation and dissemination using a One Health approach.

A website page was developed at the URL: <https://commonwealthpharmacy.org/world-antimicrobial-awareness-week-2021-spread-awareness-stop-resistance> which provided a brief description about WAAW. The URL further featured a toolkit which redirected users to the URL: <https://commonwealthpharmacy.org/world-antimicrobial-awareness-week-campaign-toolkit/>.

The toolkit featured a variety of daily activities to promote the role of pharmacists in tackling AMR. It also encouraged participants to support the One Health AMR Tripartite (FAO, OIE and WHO) global campaign by incorporating the hashtags **#WAAW**, **#AMR**, **#AntimicrobialResistance**, **#OneHealth** and **#HandleWithCare**. Participants were also encouraged to **"Go Blue to show support for pharmacists working to tackle antimicrobial resistance"** and share the activities with colleagues.

Prior to WAAW, #CPApharm and #CwPAMS were registered on the Symplur Hashtag Project to monitor Twitter data. A free subscription was used during the WAAW campaign which provided access to basic metrics. Additional insights were monitored directly on LinkedIn, Facebook, and Instagram. Google Analytics was also used to measure page traffic.

### **Participating in the campaign**

To participate in the WAAW campaign activities for the CPA and CwPAMS, participants were encouraged to do the following:

#### **Pick a Blue Board to support pharmacists working in AMR**

Participants were encouraged to “Go Blue” for pharmacists working in AMR by sharing their favourite AMR/AMS messages. A series of 9 blue boards were designed with key messages in English and 3 for participants to insert their own messages in a relevant language to accommodate diversity across the Commonwealth.



Image ref: Example of Blue Board with a key message



Image ref: Example of Blue Board allowing participants to insert their own message

### Light up blue

Participants were invited to change their social media profile cover images, photo frames or video backgrounds to show support for pharmacists working to tackle antimicrobial resistance across the Commonwealth.



Image ref: Social media profile cover background



Image ref: Social media frame



Image ref: Video background (CPA)



Image ref: Video background (CwPAMS)

### **Mysterious microbes**

To help “spread awareness and stop resistance”, participants shared some of the #CwPAMS mysterious microbes’ fun facts as well as encouraged to create their own cards in any language.



Image ref: Example of a mysterious microbes CwPAMS fun fact card

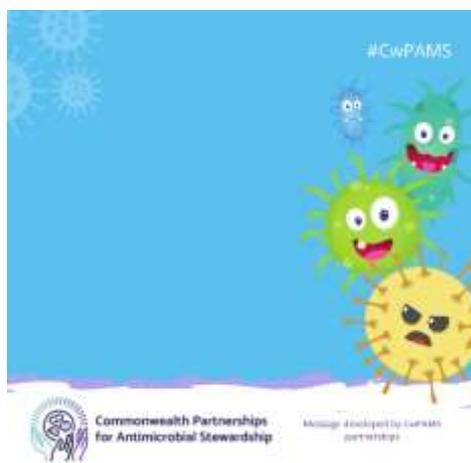


Image ref: Example of a mysterious microbes CwPAMS fun fact card allowing participants to insert their own message

### #CPApharm TweetChat

A TweetChat was organised on the eve of WAAW (17th of November) between 5-6 GMT using the hashtag #CPApharm. A blog was written to explain how to participate as well as to describe the purpose of the session at the URL address:

<https://commonwealthpharmacy.org/commonwealth-pharmacists-tweetchat-lets-spread-awareness-and-stop-resistance/>. The blog post was disseminated widely in the preceding weeks to invite panel guests through WhatsApp groups, personal invitations, an email announcement, and social media.

From 38 special guests who were personally invited, 24 were available, or otherwise willing to participate. Their attendance largely depended on either their time zone, prior commitments for WAAW, uncertainty of using Twitter or access to the platform. India and Malaysia expressed that an earlier time would have been more convenient for them as did Australia who were invited to submit alternative forms of media such as a video recording

or blog for the campaign. Brief capacity building was provided to panel guests beforehand who requested a clearer understanding about how the TweetChat worked using video or a WhatsApp call. Time barrier concerns were noted for future sessions. The transcript was recorded on Symplur as well as publicly accessible by searching the hashtag #CPApharm on 17 November 2021.

Panel guests that attended represented the UK, Ethiopia, Tanzania, The Caribbean, Canada, Nigeria, South Africa, Malta, and Uganda. Although a wider geographic representation may have participated.



Image ref: TweetChat advert



Image ref: TweetChat guest panel advert

### Data Analysis

A free Symplur analytics subscription was used to record the 60-minute session. It's

important to note that there are limitations to data extraction on an unpaid version of Symplur including a geographical analysis of participants and extensive list of influencers and network analysis.

**Summary:**

A total of 717 Tweets, 90 participants and 2.760 million Impressions were measured in a 24-hour period from November 16<sup>th</sup>, 2021, 7:45pm (GMT) to November 17<sup>th</sup>, 2021, 7:45pm (GMT)

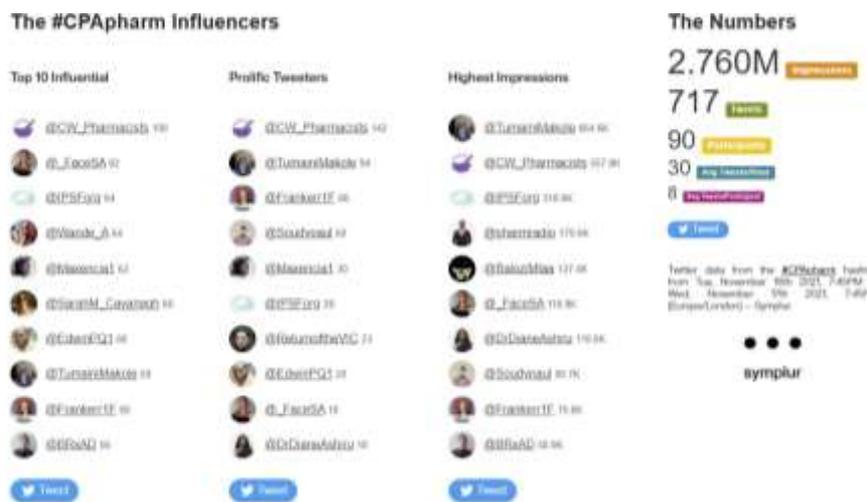


Image ref: Twitter chat analytics on the #CPApharm hashtag based on a free subscription to Symplur using the SymplurRank scoring algorithm

*Top 10 Influencers is determined by the SymplurRank algorithm.*

Create Symplur Account to produce your own influencer lists like these

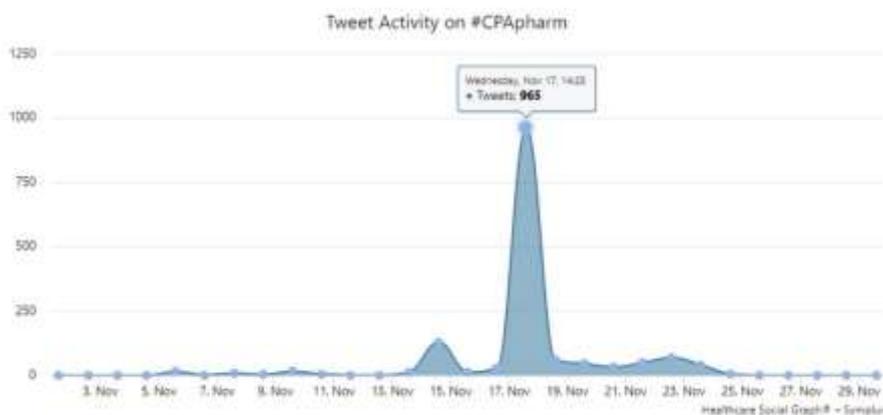


Image ref: Twitter chat analytics on the #CPApharm hashtag based on a free subscription to Symplur using the SymplurRank scoring algorithm over a 30-day period (1<sup>st</sup> to 30<sup>th</sup> November 2021).



Image ref: Tweet examples from participants during WAAW using both the #CPApharm and #CwPAMS hashtags

### Share the #CwPAMS tools and resources

To further promote the various tools and resources developed through Africa-UK partnerships, campaign participants were encouraged to share the Commonwealth Partnerships for Antimicrobial Stewardship (#CwPAMS) programme tools and resources including the IPC resources, AMS Prescribing App, AMS Toolkit, CPD platform and PULSE community platform during WAAW as part of the WAAW toolkit on the URL: <https://commonwealthpharmacy.org/world-antimicrobial-awareness-week-campaign-toolkit/>



Image ref: Links to CwPAMS resources in the WAAW toolkit

### Global Antimicrobial Stewardship Game (AMS Game) tournament

To close the WAAW campaign, participants were invited to join an AMS Game tournament on the 24th of November as a player or facilitator. To help drive interest, a digital copy of the game was offered as a prize. Invitations were sent through WhatsApp, email, social media and a press release on the URL: <https://commonwealthpharmacy.org/press-release-launch-of-the-antimicrobial-stewardship-ams-game/>.

At the Launch of the game in August 2021, 204 individuals from 23 countries registered for the game. When the game was played during the World Antimicrobial Awareness Week (November 2021), 124 people had registered for the game across 23 countries. Overall, 74 participants responded to the AMS Game evaluation form. The respondents represented 13 countries across four regions; African region (7), European region (3), South-East -Asia (2), and Western Pacific region (1). More than half (62.2%) of the respondents were pharmacists. Most of the respondents had experience in antimicrobial stewardship with 20.3% recorded as AMS specialists. However, 10.8% of the respondents were new to AMS.



**Antimicrobial Stewardship Game**

World Antimicrobial Awareness Week

# GLOBAL AMS GAME TOURNAMENT

**24<sup>th</sup> November**  
**1PM (GMT)**

Join our global online game event and play the AMS Game with colleagues from around the world during World Antimicrobial Awareness Week.

Learn how the AMS Game can improve antimicrobial stewardship in your organisation.

The game topics include:

- Introduction to antimicrobial resistance & stewardship
- Appropriate use of antimicrobial agents
- Infection prevention and control
- Antimicrobial stewardship and surveillance

To register go to [www.amsgame.com](http://www.amsgame.com)

**WIN**  
a digital copy of the AMS game\*



Image ref: AMS Game flier disseminated on social media



Image ref: Example tweets during the AMS Game using the hashtags #CwPAMS and #AMSGame

## WAAW Blogs

Various stakeholders were personally invited to share their experiences and expertise from a One Health approach in relation to how pharmacists play a role in tackling AMR across the Commonwealth by writing a blog consisting of between 500 – 700 words. 6 blogs were received which covered the following topics:

Authors	Affiliation	Country	Occupation	Topic	URL
Tumaini John Makole	CwPAMS	Tanzania	Pharmacist	Pharmacists as trusted allies in the fight to tackle AMR in Tanzania	<a href="https://commonwealthpharmacy.org/blog-pharmacists-are-trusted-allies-in-the-fight-to-tackle-amr/">https://commonwealthpharmacy.org/blog-pharmacists-are-trusted-allies-in-the-fight-to-tackle-amr/</a>
Claire Brandish	CwPAMS	UK	Pharmacist	MRSA: A journey from farm to pharmacy	<a href="https://commonwealthpharmacy.org/blog-claire-brandish/">https://commonwealthpharmacy.org/blog-claire-brandish/</a>
Sakeena Hameem	CPA	Sri Lanka	Pharmacist	The need to improve antimicrobial stewardship among pharmacists in Sri Lanka	<a href="https://commonwealthpharmacy.org/blog-the-need-to-improve-antimicrobial-stewardship-programmes-in-sri-lanka/">https://commonwealthpharmacy.org/blog-the-need-to-improve-antimicrobial-stewardship-programmes-in-sri-lanka/</a>
FINDdx	FINDdx	Geneva/ LMICs	Rapid Diagnostics	AMR Diagnostic Stewardship in LMICs and the role of pharmacists	<a href="https://commonwealthpharmacy.org/antibiotic-resistance-primary-care/">https://commonwealthpharmacy.org/antibiotic-resistance-primary-care/</a>
Ayobami Diyaolu and Dr Diane Ashiru-Oredope	CwPAMS	Nigeria/ UK	Pharmacists	The role of digital technology in combatting antimicrobial resistance	<a href="https://commonwealthpharmacy.org/blog-the-role-of-digital-health-in-combating-antimicrobial-resistance/">https://commonwealthpharmacy.org/blog-the-role-of-digital-health-in-combating-antimicrobial-resistance/</a>
Mat Upton	Plymouth University	UK	Microbiology	Digging deeper for new antibiotics (including the role of pharmacists as stewards)	<a href="https://commonwealthpharmacy.org/digging-deeper-for-new-antibiotics/">https://commonwealthpharmacy.org/digging-deeper-for-new-antibiotics/</a>

### Video recording

From 9 invited participants, 5 recorded a video documenting their views, experiences, and expertise from a One Health approach in terms of how pharmacists play a role towards tackling AMR.

Authors	Affiliation	Country	Occupation	Topic	URL
Manjiri Gharat	CPA	India	Pharmacist	AMR in India	<a href="https://twitter.com/CW_Pharmacists/status/1463164595372269586">https://twitter.com/CW_Pharmacists/status/1463164595372269586</a>
Andrew McLachlan	CPA	Australia	Pharmacist	AMR in Australia	<a href="https://twitter.com/CW_Pharmacists/status/1461706690336903173">https://twitter.com/CW_Pharmacists/status/1461706690336903173</a>
Reenal Chand	CPA	Fiji	Pharmacist	AMR in Fiji	<a href="https://twitter.com/CW_Pharmacists/status/1462075253178482700">https://twitter.com/CW_Pharmacists/status/1462075253178482700</a>
Victoria Rutter	CPA	UK	Pharmacist	AMR in the Commonwealth and WAAW welcome message	<a href="https://twitter.com/CW_Pharmacists/status/1461257872055013377">https://twitter.com/CW_Pharmacists/status/1461257872055013377</a>
Wei Ping Khor	CPA	Malaysia	Pharmacist	AMR in Malaysia	<a href="https://twitter.com/CW_Pharmacists/status/1462828811603558406">https://twitter.com/CW_Pharmacists/status/1462828811603558406</a>

## Google analytics

A data analysis of the CPA website was extracted between the 1<sup>st</sup> to 30<sup>th</sup> of November 2021 and based on the results the most visited pages during this period were related to the AMR campaign with the overview and toolkit URL's averaging between 491 to 601 visits, 331 for the AMS Game press release and 190 for the TweetChat during the 30-day period. Results demonstrated a relatively active period on the website between the 13<sup>th</sup> to 27<sup>th</sup> of November when the WAAW campaign took place on social media.

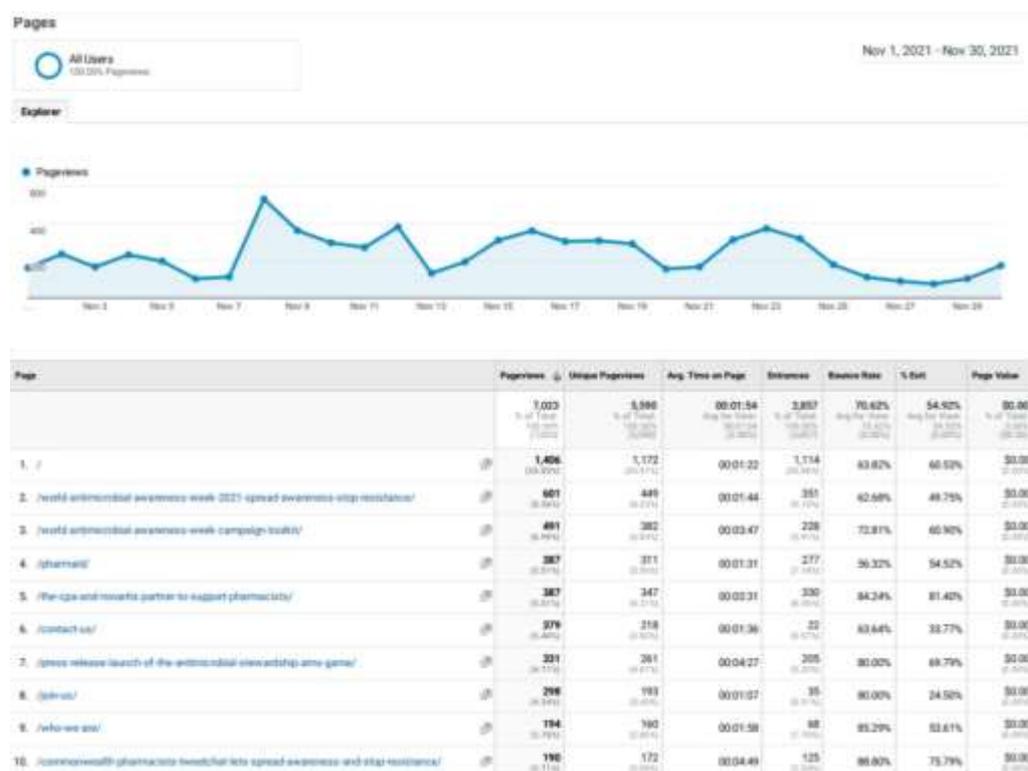


Image ref: Google Analytics top 10 page visits during the 1<sup>st</sup> to 30<sup>th</sup> of November 2021

## NodeXL Metrics

As a comparison, datasets were extracted from NodeXL courtesy of Dr Graham Mackenzie (@gmacscotland) Public Health Scotland on Twitter. Data from NodeXL confirmed @Cw\_Pharmacists as a top influencer in a miscellaneous network of 27,042 Twitter users whose recent tweets were included in a list related to #WAAW #EAAD search terms between 17- 25 Nov 2021. The complete report can be viewed here:

<https://nodexlgraphgallery.org/Pages/Graph.aspx?graphID=267022>

Among the data collected, top URL's shared included the CPA blog

<https://commonwealthpharmacy.org/blog-pharmacists-are-trusted-allies-in-the-fight-to->





Top Hashtags in Tweet in Entire Graph:

- [15745] #waa #
- [15078] #antimicrobialresistance #
- [14578] #waa2021 #
- [14278] #amr #
- [8711] #worldantimicrobialawarenessweek #
- [8119] #keepantibioticsworking #
- [5484] #antibioticresistance #
- [4317] #antibiotics #
- [3352] #aad #
- [2790] #antibioticguardian #



Top Hashtags in Tweet in G1:

- [4835] #antimicrobialresistance #
- [4521] #waa #
- [4396] #waa2021 #
- [3049] #amr #
- [2482] #worldantimicrobialawarenessweek #
- [2107] #keepantibioticsworking #
- [1722] #antibioticguardian #
- [1006] #antibioticresistance #
- [832] #coppharm #
- [772] #aficamaw #

Top Hashtags in Tweet in G2:

- [3755] #waa #
- [3476] #waa2021 #
- [3438] #amr #
- [2498] #antimicrobialresistance #
- [1928] #aad #
- [1900] #keepantibioticsworking #
- [1542] #antibioticresistance #
- [1247] #antibiotics #
- [1105] #worldantimicrobialawarenessweek #
- [945] #aad2021 #

Top Hashtags in Tweet in G3:

- [2703] #amr #
- [2416] #waa #
- [1790] #waa2021 #
- [1653] #antimicrobialresistance #
- [963] #antibioticresistance #
- [917] #waa21 #
- [771] #waa21 #

Image ref: Overview of the NodeXL report at <https://nodexlgraphgallery.org/Pages/Graph.aspx?graphID=267022#headerDescription>

## Overview

Overall, a total of 1506 Tweets, 394 participants and 6,928 million Impressions were measured during the month of November 2021 with most of the engagement during WAAW.

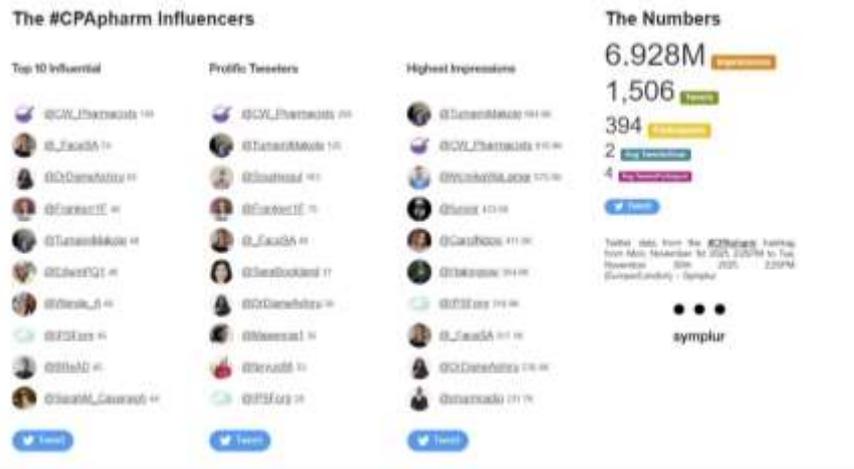


Image ref: Twitter chat analytics on the #CPApharm hashtag based on a free subscription to Symplur using the SymplurRank scoring algorithm over a 30-day period (1<sup>st</sup> to 30<sup>th</sup> November 2021).

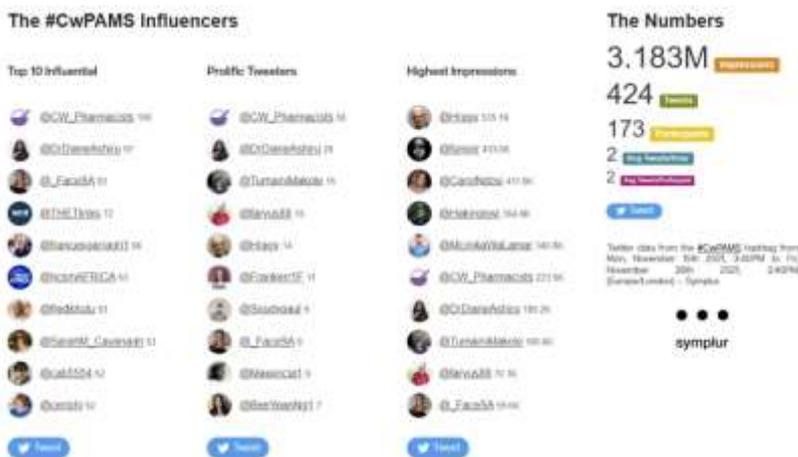


Image ref: Twitter chat analytics on the #CwPAMS hashtag based on a free subscription to Symplur using the SymplurRank scoring algorithm between 15<sup>th</sup> to 26<sup>th</sup> November 2021

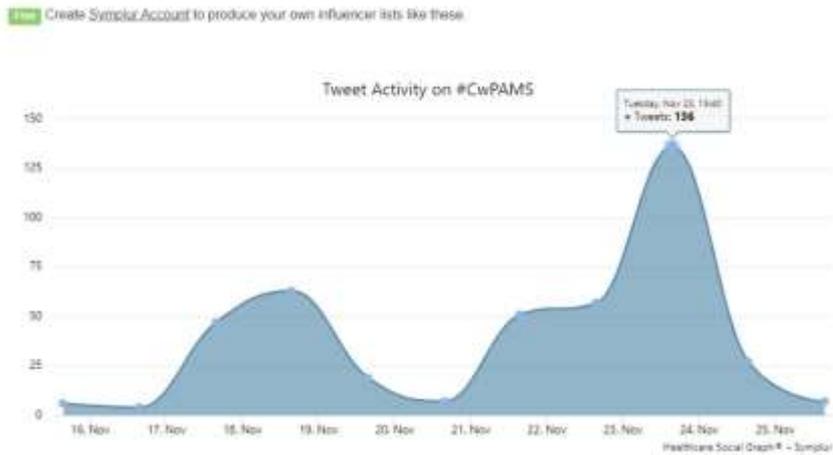


Image ref: Twitter chat analytics on the #CwPAMS hashtag based on a free subscription to Symplur using the SymplurRank scoring algorithm between 15<sup>th</sup> to 26<sup>th</sup> November 2021 with the 24<sup>th</sup> of November's AMS Game tournament demonstrating the most activity as well as the mystery microbe boards during the week

**Commonwealth Pharmacists Association** (@CwPAMS) · Nov 18, 2021

Did you know many diseases are caused by microbes like bacteria, viruses, parasites and fungi?

Antimicrobials, like [#Antibiotics](#), are used to treat them.

[#AntimicrobialStewardship](#) is important to how we use these life-saving medicines more responsibly.

[#CwPAMS](#) [#WMAW](#) [#WIAAW2021](#)

**Microbes (germs) include viruses, bacteria, fungi and parasites** [#CwPAMS](#)

Many diseases are caused by microbes like bacteria, viruses, parasites and fungi.

Antimicrobials are medicines used to treat infections caused by microbes. Over time, these microbes can change, either by random mutation or surviving treatment through natural selection, leaving behind a more resistant strain that can then replicate further. This is called antimicrobial resistance.

Commonwealth Partnership for Antimicrobial Stewardship

THEFT and S others

Image ref: Example of a Mystery Microbe board disseminated on 18 November 2021

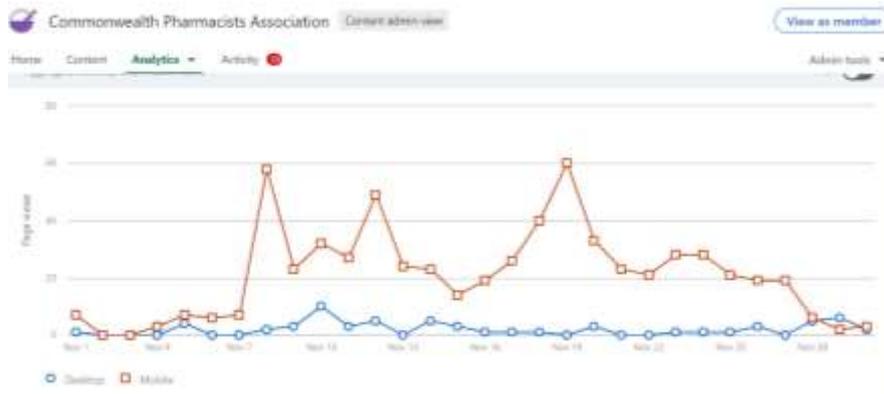


Image ref: LinkedIn analytics between 1<sup>st</sup> to 30<sup>th</sup> November 2021



Image ref: LinkedIn analytics annual report from 1<sup>st</sup> February 2021 to 31<sup>st</sup> January 2022



Image ref: LinkedIn analytics annual report from September 2021 to 14<sup>th</sup> February 2022

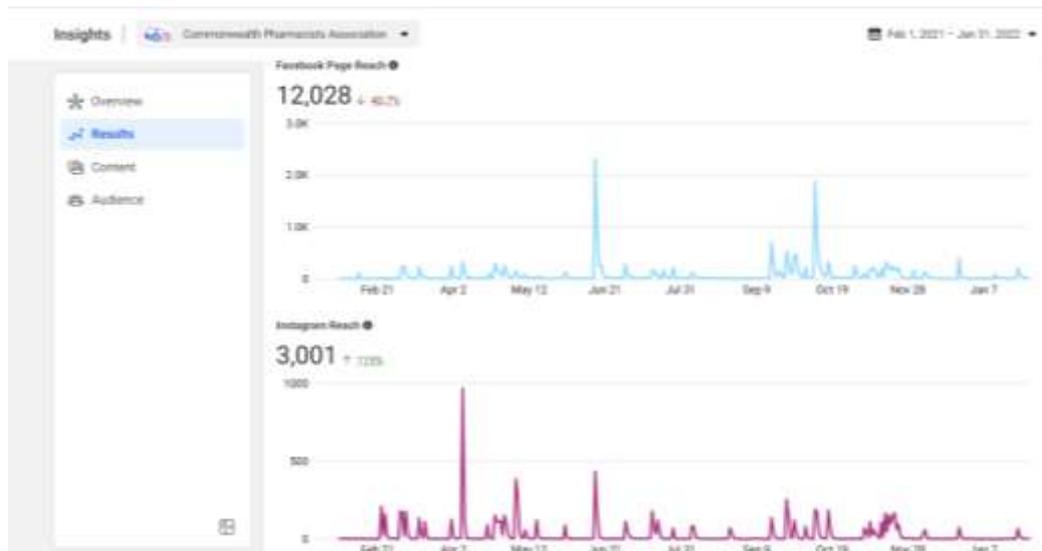


Image ref: Facebook and Instagram insights annual overview page reach report from 1<sup>st</sup> February 2021 to 31<sup>st</sup> January 2022.

## Conclusion

Metrics were gathered from various data points from two hashtags #CPApharm and #CwPAMS to understand the impact of a campaign for the Commonwealth Pharmacists Association and CwPAMS programme during World Antimicrobial Awareness Week 2021 (WAAW). The campaign utilised various communication media to reach its audience which took the form of videos, blogs, a TweetChat, daily posts on social media platforms including Twitter, LinkedIn, Facebook and Instagram. The daily posts consisted of various educational messages and fun fact cards which users were asked to reshare with their own audience. Images were also designed to use as video backgrounds, social media frames and cover photos. In addition, a CwPAMS Antimicrobial Stewardship Game (AMS Game) tournament was organised on the closing day of WAAW (24 November 2021) inviting participants to test their AMR and AMS knowledge during the session. Based on the findings, the campaign was successful overall with data demonstrating #CPApharm in the topmost used hashtags according to a NodeXL [report](#). @Cw\_Pharmacists was also measured as a top influencing account in a miscellaneous network of 27,042 Twitter users whose recent tweets were included in a list related to #WAAW #EAAD search terms. Most of the WAAW activity took place on Twitter with the TweetChat generating 717 Tweets, 90 participants and 2.760 million Impressions and the balance of traffic generated from the AMS Game and daily posts. Google analytics extracted from the website [www.commonwealthpharmacists.org](http://www.commonwealthpharmacists.org) showed that the most visited pages during the month of November 2021 were related to the WAAW campaign with the [general landing page](#), [campaign toolkit](#), [AMS Game press release](#) and [TweetChat blog](#) in the top 10. NodeXL also recorded two CPA and CwPAMS blogs ([Blog 1](#), [Blog 2](#)) listed in the topmost shared URL's as well as the main domain address.

Room for improvement was carefully noted in terms of time zone differences such as in the case of the TweetChat which was arranged at a predetermined time and date of 17:30 GMT. Participants in Eastern regions such as Malaysia, India and Australia were an example with

India reiterating it would be late for them. The organisers also noted concerns from campaign participants who stated they felt uncomfortable on camera to record a message for WAAW and in this instance we gave them the opportunity to either write a blog with editing assistance or to partake in the TweetChat. Training prior to the TweetChat was provided by either WhatsApp calls or Zoom for those who requested it. LinkedIn was relatively active even though the daily posts were fewer in comparison to Twitter. A 6-month analysis showed a 220% increase in reach during the month of November in comparison to prior and post months following WAAW. Insights from Facebook and Instagram however demonstrated moderate engagement meaning more work is required on these platforms in 2022. It is important to note that Facebook pages don't always reach every audience member due to platform limitations which is why paid ads are often utilised. With lessons learned we believe the World Antimicrobial Awareness Week 2022 campaign will achieve further success.

