



This study was conducted by a group of researchers from the Department of Mass Communication at the University of Lagos as part of a health misinformation fact-checking project in Nigeria. It contains a collection of potentially false and harmful health claims that circulated in the public domain during the May to July 2020 period. It is the third in a series of quarterly reports that will be shared with the network of journalists, fact-checkers, health experts and policymakers to increase the uptake of evidence-based health information in Nigeria. The project is funded by the Bill & Melinda Gates Foundation.

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#### INTRODUCTION

Misinformation can be described as information that is false, but which the disseminator believes to be factual (Amobi, Obia, Udodi, & Akinuliola, 2019). This includes false claims surrounding health issues, shared ignorantly by people who believe them to be true and without the intention to harm the consumer.

Even though the intent of the creator or purveyor of the misinformation might not be to cause outright harm, health misinformation has potentially damaging implications for the health of the population. Kim (2019) argues that widespread health misinformation is a cause for alarm, as it has the possibility to create public health crises. In agreement, Zielinski (2020) notes that in Nigeria, it is undermining medical advice, proffering fake cures, and inciting panic.

A prime example from Nigeria is contained in a video which although has been taken down by Facebook, Twitter and YouTube, is still circulating on WhatsApp. This video contains the unsubstantiated claim by Dr. Stella Immanuel, a Nigerian trained General Practitioner in the U.S. that she has treated over 350 patients of COVID-19 with a combination of Hydroxychloroquine, Zinc and Zithromax (Moshood, 2020). Although, the Nigerian Guild of Medical Directors and Clinical Pharmacists Association of Nigeria have challenged her claim as lacking in scientific evidence (Folorunsho-Francis, 2020), the video continues to be shared among several groups on the WhatsApp platform.

Health misinformation in Nigeria ranges from rumours, such as claims that bathing with salt water will cure Ebola, to ethnically based beliefs and superstitions, such as the claim among the Igbos of Southeast Nigeria that palm oil poured on a red-hot knife can disinfect and cure a cut or nail puncture on the feet, to misperceptions about causes of diseases and illnesses, their modes of transmission and treatment, and the herbal concoctions which can treat them. Social media gives people without medical backgrounds and self-proclaimed "herbal" doctors the ability to disseminate health misinformation to a wide range of people, and exacerbates the risks posed by it.

The biggest challenge is that misinformation drowns official public health advice, making it difficult for the voices of healthcare professionals to be heard. The fallout can be dangerous, and can range from a patient suffering unnecessarily and protractedly from a treatable condition, to outbreaks of an entirely preventable disease (Kaltwasser, 2019). There is a dire need for rapid verifications of claims and awareness among consumers about the nature and dangerous implications of health misinformation.

This research sought to identify the prevalent examples of health misinformation in Nigeria, what motivated their creation and the potential harm to the consumers of such messages. It covers the circulation of false health claims for the period July to December 2020 and was guided by the following research questions:

- 1. What are the prevalent examples of health misinformation in Nigeria?
- 2. What are the sources and channels of dissemination of health misinformation in Nigeria?
- 3. What are the motives behind the formulation and spread of health misinformation in Nigeria?
- 4. What are the potential harms of health misinformation in Nigeria?

## **COMMUNITY BELIEFS**

Brief description of claim	Origin/Platform circulated on	Motivation for dissemination	Potential harm
It is claimed that <i>Ocimum gratissimum</i> or African Basil, also known as Scent Leaves ( <i>Nchanwu</i> in Ibo, <i>Efirin</i> in Yoruba, <i>Daidoya</i> in Hausa); Psidium guajava or Guava leaves ( <i>Ugwoba</i> in Ibo, <i>Guaba</i> in Yoruba, <i>Goba</i> in Hausa); <i>Gongronema Latifolium</i> ( <i>Utazi</i> in Ibo, <i>Arokeke</i> in Yoruba); and salt can be used to treat stomach ache. To process: Place leaves in a pot, add salt and water and boil until the juice turns brown in colour. Remove from heat, drain the juice and leave until it is cold. Drink a glass.	This belief is popular among Igbos in South East Nigeria. It is largely circulated via interpersonal networks and private social media platforms, such as WhatsApp.	To provide a traditional remedy for the treatment of stomach aches.	Reliance on this remedy may result in people not seeking prompt medical help when they are sick. This is potentially dangerous, as stomach aches may be an
Scent Leaves			indication of more serious diseases, which require expert diagnosis and treatment.
Guava leaves			
Utazi leaves Salt			

It is claimed that Vernonia amygdalina (VA) often This belief is popular among To provide and Belief in this claim referred to as "bitter leaf", (Onugbu in Ibo, Ewuro in rural Igbo communities in promote may negatively Yoruba); and Gongronema Latifolium (Utazi in Igbo, Southeast Nigeria. It is traditional drive health Arokeke in Yoruba), can be used to treat Diabetes. circulated by traditional remedies for seeking To process: Wash with cold water and grind to health practitioners and other treating behaviors, as extract the juice. Take a glass of the juice every interpersonal networks, such diabetes. individuals morning. You can also chew the leaves and wash confronted with as family and friends, as well down with a sachet of water. as private social media diabetes may be platforms, such as WhatsApp. tempted to adopt this herbal remedy, as opposed to seeking Bitterleaf treatment from medical experts, or taking their prescribed medication. It is claimed that Musaparadisiaca also referred to This belief is popular among To provide and Belief in this claim as unripe Plantain (Oji-Oko in Igbo, Ogede in Yoruba, Igbo communities in promote may negatively Ayaba in Hausa), can be used to treat stomach Southeast Nigeria. It is traditional drive health ulcers. To process: Wash and dice the plantain circulated by traditional remedies for seeking together with the skin, and soak in cold water. health practitioners and other treating ulcers. behaviors, as Cover, and allow to ferment for three days. Take interpersonal networks, such individuals confronted with one glass of the unripe plantain drink three times a as family and friends, as well day. It is also recommended that a glass of coconut as private social media stomach ulcers water be taken the day before the unripe plantain platforms, such as WhatsApp. may be tempted treatment is commenced. to adopt this remedy, instead of seeking expert medical care. **Unripe Plantain** 

Coconut Water

# SOCIAL MEDIA HEALTH MISINFORMATION FACEBOOK

Brief description of claim	Origin and platform circulated on	Motivation for Dissemination	Potential Harm
It is claimed that cloves (Syzygium Aromaticum) mixed with two oranges or lime or lemon can be used to treat Gonorrhea. See image below:  Orange, Lemon & Lime  Cloves	This claim was disseminated on a Facebook page called Free Health Services at: https://www.facebook.com/freehealthcareservices/posts/3476646255762752? rdc=1& rdr	Possibly, to gain more followers on the Facebook page and to generate traffic and advertising.	It might mislead people into depending solely on the remedy to treat Gonorrhea, rather than seeking prompt and appropriate medical attention.
The following organic remedy is claimed to treat Arthritis: Sesame seeds soaked in water overnight; Garlic; Ginger; raw Potato juice; Coconut; Walnuts; Pineapple juice; Honey and Cinnamon powder; and Green gram soup. See method of preparation and consumption on the Facebook page.	This claim was disseminated on a Facebook page identified as Free Health Services at: https://www.facebook. com/freehealthcareser vices/posts/347270102 9490608? rdc=1& rdr	Possibly to provide an organic remedy for Arthritis and to stay relevant as a custodian of health information. To also drive traffic and advertising to the Facebook page.	This claim is not backed up by any evidence and could lead to health complications or aggravate the condition, if expert and timely medical care is not sought.
It is claimed that two cups of dried corn and four cups of dried bitter kola, mixed, can be used to keep snakes away.	This claim was published on the Facebook page Free Health Services at <a href="https://www.facebook.com/freehealthcareservices/posts/347002553">https://www.facebook.com/freehealthcareservices/posts/347002553</a> 3091491? rdc=1& rdr	The Facebook group may want to stay relevant as a custodian of health information, and to drive traffic and advertising to their page.	This claim lacks any scientific basis.
It is claimed that a special concoction of unripe pawpaw can be used to treat ulcers. See image below:	This claim was posted on a Facebook page known as Free Health Services at: https://www.facebook.	To possibly provide organic treatment for ulcers and to generate traffic and	The claim may mislead people into depending on the solution, instead of seeking medical attention,

com/freehealthcareser	advertising on their Facebook	and this could lead to
vices/posts/346597497	page.	health complications.
6829880? rdc=1& rdr		

## **WHATSAPP**

Brief description of claim	Origin/Platform	Motivation for	Potential Harm
	circulated on	Dissemination	
It is claimed that SuperLife product STC30, a plant-based food therapy which uses stem cells to manage, prevent or address a disease or a health condition, can replace neurons damaged by the Spinal Cord injury, Stroke, Alzheimer's Parkinson's disease or any other Neurological problem. It is also claimed that STC30 can help to produce Insulin that fights and manages diabetes amongst other health benefits. See image below:	This claim was circulated on Superlife website at:  https://superlifestc30shop.com/  & their WhatsApp page, which could be reached via: 08140458110	To market and promote sales of the product.	Since the veracity of this claim is questionable, it is dangerous, especially since it does not seem to be approved by a pharmacological board.
It is claimed that <i>Sansevieria Liberica</i> commonly called Leopard lily, Snake plant, African Bowstring hemp ( <i>Abala</i> in Yoruba, <i>Moda</i> in Hausa, <i>Ebube</i> Agu in Igbo) has the capability to purify air. It can also be used to treat leg ulcers, earaches, asthma, epilepsy, ulcers, sexually transmitted diseases (STD's),	This claim was circulated on WhatsApp.	To sensitize the public on the health benefits of Sansevieria Liberica.	This might make people depend solely on Sansevieria Liberica to treat the ailments listed instead of seeking prompt and expert medical attention.

piles, abdominal pains, colic, diarrhea,			
eczema, gonorrhea, menorrhagia, sexual			
weakness, and snake bites.			
It is claimed that water from a snail	This claim was	An excerpt from the	Although the writer might
mixed with liquid Peak Milk can be used	circulated on	claim: <i>I beg you, don't</i>	have been motivated by
as a treatment for strokes. Preparation:	WhatsApp	withhold the	the desire to provide a
Wash the snails with clean		information, share it to	home-made remedy for
water, and break gently		those who would also	stroke, it is not evidence-
water, and break gently		need it and you can	based and may lead
<ul> <li>To collect water from snails:</li> </ul>		also share this post so	readers to adopt the
break the pointed end and		that it will reach a	prescribed remedy and
gather the snail water in a		good number of	not seek expert medical
container, add a tin of peak		people, who would	attention, the outcome of
milk. After mixing the snail		appreciate God for	which may be death or
water and the peak milk, shake		such information.	serious health
to achieve a good mix.			complications.
Prescription: Three teaspoons in the morning, afternoon and night.		The excerpt above suggests that the motivation is driven by the desire to provide a home-made remedy for strokes.	
It is claimed that the following alkaline	This claim was	To perhaps provide a	Consumers of the
foods kill the Coronavirus as they are	circulated on	homemade treatment	message may be tempted
above the acidity level of the virus:	WhatsApp.	for the Coronavirus.	to adopt the home
• Green lemon - 9.9 pH			remedy instead of seeking
Yellow Lemon - 8.2 pH     Avecade, 15.6 pH			medical attention.
<ul><li>Avocado - 15.6 pH</li><li>Garlic - 13.2 pH</li></ul>			
• Mango - 8.7 pH			
Tangerine - 8.5 pH			
<ul><li>Pineapple - 12.7 pH</li></ul>			
• Watercress - 22.7 pH			
• Oranges - 9.2 pH			
5 ,			

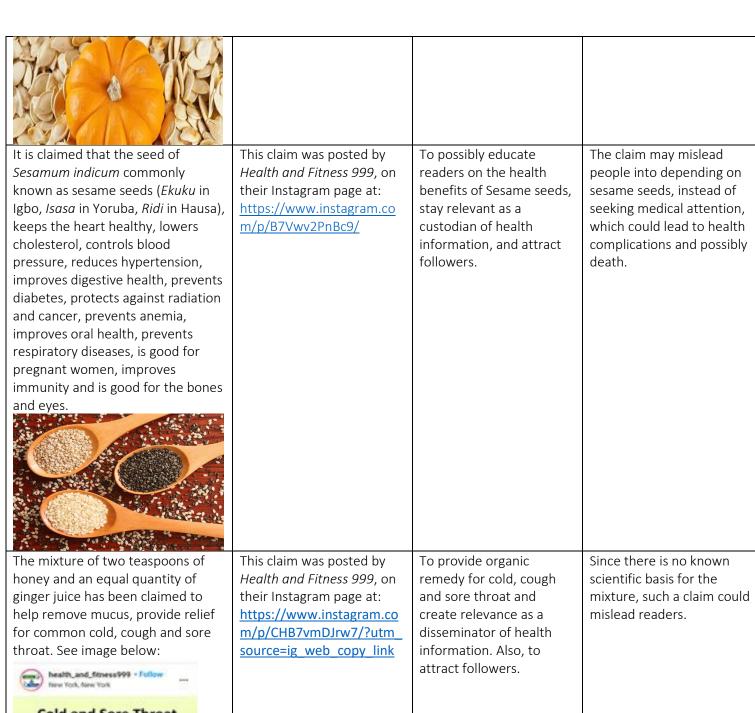
It is claimed that the Remdesivir, (a drug This claim was The image of the drug These appear to be used for the treatment of COVID-19) circulated on motivated by Remdesivir appears to being sold in Africa is different from the WhatsApp and conspiracy theories have been manipulated to one used for treatment of COVID-19 in feed into the narrative of Facebook Messenger, about vaccines being the US, Canada or EU. They further claim the creator of the and shared by family produced to reduce that this authenticates the story that the and friends. the population of message. Harms include Africa. vaccine, when produced should be people being hesitant to considered a death trap for Africans, receive a vaccine once who they refer to as "Laboratory Rats" available and questioning See image below: official health sources. And you still want to argue that they mean well for the Covid19 vaccine in Africa. Wake up! Why should a medication be just for a particular region? Remdesivir for Injection 100 mg Lyophilized Powder or Injection for IV Infusion Jubi-R" COVIFOR 100 mg/vial 1 Single Dose Vial NOT FOR DISTRIBUTION IN US, CANADA OR EU WAKE UP AFRIKA, THIS IS NOT A CURE BUT A TRAP TO KILL YOU OR USE YOU AS "LABORATORY RAT". It is claimed that a certain Dr. Munashe The claim was To perhaps inform This claim might drive Ronald Musumba of State Medical circulated on readers about the readers to depend solely University Moscow, Russia encouraged WhatsApp. health benefits of on lemon to treat Cancer lemon and be helpful. which may place patients people to adopt the following remedy, in a shared newsletter with the following at serious risk. excerpts: Drinking hot lemon water without sugar can prevent cancer. Hot lemon water kills cancer cells and increases longevity. To process: Add hot water to 2-3 slices

of lemon. Drink daily.

It is claimed that <i>Potassium aluminium</i>	The claim was made by	To perhaps provide	The writer of the claim
sulphate, commonly known as Alum can	Mr. Bankole Onasanya	home-made remedy	failed to provide research
be used to treat Toothache.	and circulated on	for treating toothache.	evidence to support the
Procedure: After dinner, brush your	WhatsApp.		claim. It is also potentially
teeth with normal toothpaste, place a			dangerous, because even
piece of Alum directly on the affected			if Alum relieves the pain,
tooth, close your mouth and do not			it may cloak infection or
swallow your saliva, since it reacts with			some other serious
the <i>Alum</i> . After about 10-15minutes,			underlying condition,
remove the first saliva and repeat the			thus, placing the patient
same process.			at risk.
			de risk.
The same process should be repeated			
before breakfast, and the entire			
procedure observed for five days.			
It is claimed that <i>Dialium Guineense</i>	This claim was posted	To perhaps drive	The claim may mislead
commonly known as Black Velvet	by Atinka Media	traffic to the website	readers to solely depend
Tamarind ( <i>Icheku</i> in Igbo, <i>Awin</i> in	Village at:	and possibly educate	on <i>Dialium Guineense</i> to
Yoruba, and <i>Tsamiyar kurm</i> in Hausa)	https://www.atinkaonl	readers on the health	treat the listed ailments
treats Malaria and Gastric Ulcer; and	ine.com/fm/25-health-	benefits of Black	which could lead to
prevents Hypertension, amongst other	benefits-of-black-	Velvet Tamarind.	serious health
health benefits. See image below:	velvet-tamarind-yooyi/		complications.

## **INSTAGRAM**

Brief description of claim	Origin and Platform circulated on	Motivation for dissemination	Possible harm
It is claimed that Fenugreek or Trigonella foenum-graecum (mkpuru oka oyibo in Igbo, eru in Yoruba, kimba in Hausa) soaked, blended and mixed with 1 teaspoon of Coconut oil and 2 tablespoons of Hibiscus Powder can be used to treat hair loss.  Fenugreek  Coconut Oil	The claim was posted on the Instagram page identified as Health Tips for Healthy Life at: https://www.instagram.com/p/CHBDyVNnR4Z/	Possibly, to drive traffic and advertising to the page and create relevance as a disseminator of health information.	Although applying the mixture on the head may not have any adverse effect on the users' health, there is the likelihood that people who believe such unverified claims may believe other damaging claims.
Hibiscus Powder  It is claimed that nuts derived from Anacardium occidentalis or Cashew nuts (Kashu in Igbo, Kaju in Yoruba, Fisa in Hausa) kill the bacteria which causes toothache, decay, acne, tuberculosis, streptococcus and pneumonia.	This claim was posted by Health and Fitness 999, on their Instagram page at: https://www.instagram.com/p/CGKJsVVHHKo/?utmsource=ig_web_copy_link	Possibly, to drive traffic and advertising to the page and create relevance as a disseminator of health information.	People relying on Cashew nuts to cure the listed health conditions rather than getting appropriate medical care stand the risk of developing health complications, especially in the case of serious conditions such as TB and pneumonia.
It is claimed that <i>Cucurbita</i> , a genus in the family Cucurbitaceae, commonly known as pumpkin seeds, are good for the skin, eye and heart, regulates blood pressure, boosts fertility, improves immunity, helps lose weight, fights intestinal worms, enhances sleep and elevates a person's mood.	This claim was posted by Health Tips for health life, on their Instagram page at: https://www.instagram.com/p/CG-XcVVnGh-/	Possibly, to drive traffic and advertising to the page and create relevance as a disseminator of health information.	This claim is not backed up by any research evidence. Thus, adopting or depending on it for treatment of any of the listed health conditions could lead to health complications.





It is claimed that green chilies help This claim was posted by To possibly educate The claim may mislead in weight loss, fights cancer, Health and Fitness 999, on readers on the health people into depending on removes wrinkles, controls diabetes their Instagram page at: benefits of green chilies green chilies, instead of and reduces inflammation amongst https://www.instagram.co and to stay relevant as a seeking medical attention, m/p/CGgWIxppywJ/?utm s other health benefits. See image custodian of health which could lead to health ource=ig\_web\_copy\_link below: information. Also, to complications, and even attract followers. death. Health Benefits of Green Chillies s. Helps in Weight loss 2. Fights Cancer 3. Releases Saliva 4. Removes Wrinkles . Controls Diabetes 6. Reduces Inflammation y. Helps in Digestion it. Helps repair Wounds 9. Strengthens Bones & Teeth 10. Good for Eyes & Skin To possibly educate It is claimed that dates can be used This claim was posted by The claim may mislead readers on the health to treat iron deficiency, Health and Fitness 999, on people into depending on constipation, diarrhea, helps bone benefits of dates and to dates, instead of seeking their Instagram page at: medical attention, which development, prevents abdominal https://www.instagram.co stay relevant as a m/p/Bs 5woxl8hW/?utm s custodian of health could lead to health cancer. ource=ig\_web\_copy\_link information. complications.

# **WEBSITES**

Brief description of claim	Origin and platform circulated on	Motivation for Dissemination	Potential Harm
It is claimed that unripe pawpaw is very effective as a natural treatment for syphilis, gonorrhea, bladder problems, dysentery, jaundice and constipation. It is also claimed to be an excellent remedy for stomach ulcer. Image below:  News Fall Creater  Young pawpaw is very effective as a natural treatment for syphilis, gonorrhea, bladder problems, dysentery, jaundice and constipation.	This claim was made by someone identified as News Hub Creator, and published on Opera News website at: https://www.operanewsapp.com/ng/en/share/detail?newsid=a66562329b9704603614982b7dda73a4&newsentryid=s38f9835b200223enng&opentype=transcoded&from=news&requestid=sharerequest	To inform readers about the health benefits of unripe pawpaw and perhaps to generate traffic and advertising to the website.	It might lead people to rely solely on unripe pawpaw to treat the listed diseases rather than getting appropriate medical treatment.
A mixture of the following is claimed to treat hemorrhoids: Six cloves of garlic, mango leaves, bark of a mango tree and 4 liters of water; or Bitter cola, red onions, blended and put in 3 litres of water.  Garlic  Mango leaves	This claim was made by someone identified as News Hub Creator, and published on Opera News website at: https://www.operanewsapp.com/ng/en/share/detail?news id=4ada6b19fdb1f8ef5ce80b596a0c0cea&newsentryid=s412878fd200124enng&opentype=transcoded&from=news&requestid=sharerequest	There exists a common belief that hemorrhoids cannot be cured or controlled by orthodox methods. This may provide the motivation for the homemade mixture.	This claim is not backed up by any research evidence and could lead to health complications or aggravate the condition.

			<b>,</b>
It is claimed that taking ones' time to walk barefooted can significantly increase the size of ones' penis.	This claim was written by Fadaka Louis and published on Gbetu TV website at:  https://www.gbetutv.com/walking-barefoot-may-increase-the-size-of-your-penis/	To possibly drive traffic and advertising to the website and perhaps to also provide natural remedies for penis enlargement.	Such a claim could mislead the public.
It is claimed that Dialium Guineense commonly known as Black Velvet Tamarind ( <i>Icheku</i> in Igbo, <i>Awin</i> in Yoruba, and <i>Tsamiyar kurm</i> in Hausa) improves oral hygiene, and cures toothache and Malaria. It is also used in the treatment of Hypertension, Stomach Ulcer, Diarrhoea and relieves Menstrual cramps. See image below:	This claim was made by Omotolani and published on Pulse.ng website at: https://www.pulse.ng/life style/food-travel/5- diseases-you-never-knew- african-velvet-tamarind- awin-could-treat/sr1jdgj	To perhaps educate readers on the health benefits of the fruit, to drive traffic to the website, and to attract advertising.	It might encourage people to ignore prompt medical attention, especially when the toothache is a symptom of a more serious condition, requiring expert medical care.
It is claimed that <i>Parkia biglobosa</i> commonly known as the African Locust Bean can be used for treating respiratory infections such as pneumonia, bronchitis, cold, cough and fever. To process: Soak in liquid, blend and eat.	This claim was published on Pulse.ng website at:  https://www.pulse.ng/life style/food-travel/iru- these-are-amazing- health-benefits-of-african- locust-bean/406dxhc	To educate readers on the benefits of the African Locust Bean and perhaps drive traffic and advertising to the website.	Adopting this remedy might encourage people to ignore expert medical attention and focus instead on the African Locust Bean to treat the listed ailments, thus, possibly leading to health complications.

It is claimed that Mango fruits are This claim was published To educate readers This might drive people to antioxidants with properties such as on Pulse.ng website, at: on the benefits of depend solely on Mango fruit Quercetin, Isoquercitrin, Astragalin, Mango fruit and to treat Cancer instead of https://www.pulse.ng/life Fisetin, and Gallic Acid or a perhaps drive traffic seeking prompt medical style/beautycombination of these, helping to on the blog. attention. health/mango-the-healthprotect the body against cancers benefits-of-this-fruit-aresuch as colon, breast, leukemia, amazing/qr840jc and prostate. It improves the health of the brain and eyes, increases libido and boosts the immune system. It also controls cholesterol and aids digestion. It is claimed that drinking ginger tea This claim was published To perhaps provide The veracity of this claim is and Lemon water daily can be used on Pulse.ng website, at: an organic remedy unknown. to get rid of belly fat. It is further https://www.pulse.ng/life for getting rid of claimed that Lemon water style/beauty-health/bellybelly fat. detoxifies the liver. Garlic is also fat-5-natural-remedies-toclaimed to be effective in getting help-you-get-rid-ofit/5v8q8lk rid of belly fat and also preventing weight gain by stopping pre-fat cells from converting into fat cells. Ginger

Lemon

It is claimed that avocado pear, also called *Persea Americana* (*Ube bekee* in Ibo) prevents and combats cancer, osteoporosis, Type 2 Diabetes, and other chronic diseases. It also claims to aid vision.

**Avocado pear** also helps prevent and combat cancer, aids great vision, prevent osteoporosis, and other chronic diseases.



Avocado Pear The health benefits of this fruit are priceless [loopnewsharbados]

This claim was published on Pulse.ng website at: <a href="https://www.pulse.ng/lifestyle/beauty-health/avocado-pear-the-health-benefits-of-this-fruit-are-priceless/jws6nvm">https://www.pulse.ng/lifestyle/beauty-health/avocado-pear-the-health-benefits-of-this-fruit-are-priceless/jws6nvm</a>

To perhaps inform readers of the benefits of avocado pear and drive traffic and advertising to the website.

This claim could drive readers to depend solely on avocado pear to treat the listed ailments.

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