



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Thursday 20220331

दिल का दौरा

रात में गर्मी से पुरुषों की जान को खतरा, 40 हजार मौतों पर किए गए अध्ययन से निकला निष्कर्ष
(Hindustan: 20220331)

<https://www.livehindustan.com/lifestyle/story-men-are-more-prone-to-heart-attack-and-stroke-due-to-rise-in-temperature-at-night-in-summer-6147878.html>

गर्मियों की रात में तापमान बढ़ने से पुरुषों को दिल का दौरा पड़ने या स्ट्रोक से मरने का खतरा अधिक होता है। सामान्य गर्मी के ऊपर केवल एक डिग्री सेल्सियस की वृद्धि से ही यह आशंका लगभग चार फीसदी बढ़ जाती

गर्मियों की रात में तापमान बढ़ने से पुरुषों को दिल का दौरा पड़ने या स्ट्रोक से मरने का खतरा अधिक होता है। सामान्य गर्मी के ऊपर केवल एक डिग्री सेल्सियस की वृद्धि से ही यह आशंका लगभग चार फीसदी बढ़ जाती है।

बीएमजे ओपन नामक पत्रिका में प्रकाशित अध्ययन के अनुसार यह जोखिम केवल 60 से 65 वर्ष के पुरुषों को प्रभावित करता है। महिलाओं पर इसका कोई प्रभाव नहीं पड़ता। ब्रिटेन में पिछले 15 वर्षों में हृदय रोग से संबंधित 40 हजार मौतों पर किए गए अध्ययन में यह निष्कर्ष सामने आया है।

जलवायु परिवर्तन ने चिंता बढ़ाई

वैज्ञानिकों ने कहा, जलवायु परिवर्तन के कारण गर्मियों की रातें ज्यादा गर्म हो रही हैं। ऐसे में अध्ययन के निष्कर्ष चिंता पैदा करने वाले हैं। समय के साथ इस वजह से मौतें बढ़ सकती हैं। गर्म मौसम हृदय

के लिए जोखिम वाला माना जाता है। विशेष रूप से पहले से ही हृदय रोग झेल रहे लोगों के लिए यह ज्यादा कष्टदायक है।

ब्रिटिश विशेषज्ञों ने हृदय रोग से पीड़ित लोगों के लिए गर्म मौसम के खतरों को बताने वाले इस अध्ययन का स्वागत किया। विशेषज्ञों ने कहा, पिछले 10 सालों में गर्मियों की रात में तापमान का बढ़ना अधिक रिकॉर्ड किया गया है। ऐसे में इस अध्ययन के जरिये भविष्य में इससे बचने के उपाय निकाले जा सकते हैं।

ज्यादा उम्र वालों पर असर नहीं

65 से अधिक उम्र वाले पुरुषों में यह जोखिम नहीं पाया गया है। वैज्ञानिक फिलहाल इस वजह को समझ नहीं सके हैं। वहीं, 60 से 65 की उम्र वाली महिलाओं में भी यह समस्या नहीं देखी गई। ऐसे में वैज्ञानिक महिलाओं पर इस जोखिम का अलग से अध्ययन करने पर विचार कर रहे हैं।

बचाव संभव

वैज्ञानिकों ने कहा, रात में सोते वक्त एयर कंडीशनर का प्रयोग, कमरों को गर्म होने से बचाने के लिए पर्दों का इस्तेमाल और सही मात्रा में पानी पीने से इस जोखिम से बचा जा सकता है।

कोरोना

दिल्ली में बढ़ी कोरोना की संक्रमण दर, डीडीएमए की अहम बैठक में चौथी लहर पर भी होगी चर्चा (Dainik Jagran: 20220331)

https://www.jagran.com/delhi/new-delhi-city-fourth-wave-of-corona-virus-will-be-discussed-in-ddma-meeting-today-common-man-issues-22585721.html?itm_source=website&itm_medium=homepage&itm_campaign=p1_component

चीन में लगातार कोरोना के मामले बढ़ रहे हैं ऐसे में दिल्ली सरकार भी कोरोना की चौथी लहर की आशंका के मद्देनजर सतर्क हो गई है। इसी कड़ी में बृहस्पतिवार को डीडीएमए की बैठक बुलाई गई है।

नई दिल्ली, जागरण डिजिटल डेस्क। राजधानी दिल्ली में बुधवार को 24 घंटे के दौरान कोरोना वायरस संक्रमण के 100 से अधिक मामले सामने आए हैं। यह चिंता बढ़ाने वाली बात इसलिए भी है, क्योंकि कई दिनों से 100 से कम मामले आ रहे थे। चीन, दक्षिण पूर्व एशिया और यूरोप के कुछ देशों में कोरोना वायरस संक्रमण की ताजा लहर को देखते हुए देश में भी चिंता बढ़ने लगी है। इस बाबत केंद्रीय स्वास्थ्य मंत्रालय भी सतर्क हो गया है। पिछले दिनों केंद्रीय स्वास्थ्य सचिव राजेश भूषण ने सभी राज्यों एवं केंद्र शासित प्रदेशों के अतिरिक्त मुख्य सचिवों, प्रधान सचिवों और स्वास्थ्य सचिवों के नाम चिट्ठी लिखकर उन्हें आगाह किया था। इसमें कहा है कि किसी प्रदेश का शासन-प्रशासन यह सोचकर लापरवाह न हो जाए कि अब नए कोरोना केस की संख्या चिंताजनक नहीं है। इसमें कोविड अनुकूल व्यवहार करना शामिल है।

इस बीच राजधानी में बनी कोरोना की सामान्य स्थिति के बीच बृहस्पतिवार को दिल्ली आपदा प्रबंधन प्राधिकरण (डीडीएमए) की बैठक होगी। उपराज्यपाल व डीडीएमए के अध्यक्ष अनिल बैजल की अध्यक्षता में होने वाली इस बैठक में कोरोना की मौजूदा स्थिति पर चर्चा की जाएगी। बैठक में मुख्यमंत्री अरविंद केजरीवाल के साथ कई वरिष्ठ अधिकारी भी मौजूद रहेंगे। बैठक में कोरोना संक्रमण की मौजूदा स्थिति और टीकाकरण की समीक्षा की जाएगी। समीक्षा के बाद आगे की तैयारियां होंगी।

कुछ दिन पहले केंद्र सरकार ने राज्यों को एक एडवाइजरी जारी की थी। एडवाइजरी में कोरोना पर सतर्क रहने और लापरवाही ना बरतने की हिदायत दी गई थी। भले ही कोरोना के मामलों में कमी देखने

को मिली है लेकिन कुछ राज्यों में कोरोना के मामले बढ़ते हुए भी दिख रहे हैं। ऐसे में राज्य पहले जारी किए गए दिशा निर्देशों का पालन करें।

कोरोना के 123 नए मामले, एक की मौत

उधर, देश की राजधानी दिल्ली में बुधवार को कोरोना की संक्रमण दर मामूली रूप से बढ़कर 0.50 प्रतिशत हो गई। इससे कोरोना के 123 नए मरीज मिले। इसके साथ ही एक मरीज की मौत हो गई, जबकि मंगलवार को संक्रमण दर 0.45 प्रतिशत थी। 24 घंटे में 106 मरीज ठीक हुए। मौजूदा समय में दिल्ली में 459 सक्रिय मरीज हैं। इनमें से 21 मरीज अस्पतालों में भर्ती हैं, जबकि 315 मरीज होम आइसोलेशन में हैं। कंटेनमेंट जोन की संख्या घटकर 2849 रह गई है।

कृत्रिम हड्डी।

आइआइटी कानपुर ने बनाई कृत्रिम हड्डी जो असली की तरह देगी मजबूती, जोड़ों की समस्याओं में प्रभावी होगी तकनीक (Dainik Jagran: 20220331)

<https://www.jagran.com/uttar-pradesh/kanpur-city-iit-kanpur-made-artificial-bone-which-will-give-strength-like-real-and-technology-will-be-effective-in-joint-problems-jagran-special-22586000.html>

अस्थि पुनर्जनन तकनीक के आधार पर बनाई है कृत्रिम हड्डी।

आइआइटी कानपुर के जैविक विज्ञान एवं जैव इंजीनियरिंग विभाग के प्रोफेसर ने अस्थि पुनर्जनन तकनीक के आधार पर कृत्रिम हड्डी बनाई है जो प्राकृतिक तरीके से काम करेगी और बिल्कुल असली की तरह मजबूती भी देगी ।

कानपुर, जागरण संवाददाता। दुर्घटना की स्थिति में किसी हड्डी का नुकसान हो जाता है, बोन टीबी या बोन कैंसर की बीमारी में संक्रमित हिस्सा काटना पड़ता है तो अब परेशान होने की जरूरत नहीं है। टूटी या अलग की गई हड्डी का खालीपन भर जाएगा और जुड़ी हड्डी पूर्ववत काम करेगी। हड्डी पुनर्जनन की यह कारगर तकनीक ईजाद की है भारतीय प्रौद्योगिकी संस्थान (आइआइटी) ने। हड्डियों के बीच

इंजेक्ट किए जाने वाले सिरेमिक आधारित पदार्थ की खासियत है कि हड्डियों के बीच भरने के बाद यह असली हड्डी की तरह काम करता है। यह हड्डी के सक्रिय जैव अणुओं के वाहक के रूप में भी सक्षम होगा। इससे व्यक्ति सामान्य जीवन यापन कर सकेगा। सबसे बड़ा फायदा देश के उन लाखों लोगों को होगा, जो दुर्घटना में घायल हो जाते हैं। आइआइटी ने व्यापक उत्पादन के लिए यह तकनीक निजी कंपनी आर्थो रेजेनिक्स प्रा.लि. को हस्तांतरित की है।

संस्थान के जैविक विज्ञान एवं जैव इंजीनियरिंग विभाग के प्रो. अशोक कुमार व अरुण कुमार तेवतिया ने अस्थि पुनर्जनन तकनीक के बारे में बताया कि जिन केमिकल को मिलाकर यह पदार्थ बनाया गया है, वह बायोएक्टिव अणुओं (बायो मालीक्यूल्स) के वाहक के रूप में कार्य करेंगे। ये पदार्थ बायोडिग्रेडेबल है, यानी इससे प्रकृति को भी नुकसान नहीं होगा। इस तकनीक को नैनो हाइड्रोक्सी एपेटाइट आधारित पोरस पालीमर कंपोजिट स्केफोल्ड फार बायोएक्टिव मालीक्यूल डिलीवरी इन मस्कुलोस्केलेटल रिजेनरेशन नाम दिया गया है। यह पदार्थ आक्सीजन व रक्त परिसंचरण के साथ ऊतकों का निर्माण कर हड्डी दोष का उपचार करता है। डा. अशोक ने बताया कि हड्डी के पुनर्जनन के लिए जो मौजूदा उपचार हैं, उससे संक्रमण का खतरा होता है। नई तकनीक कोलेजन नैनो हाइड्रोक्सी एपेटाइट युक्त मैक्रोपोरस जेल की तरह है।

अब तक डाक्टर टूटने का बीमारीग्रस्त हड्डी के उस हिस्से को अलग करके फिर इम्प्लांट करते थे। अब हाइड्रोक्सी एपेटाइट, हेमेहाइड्राइट और कैल्शियम सल्फेट को मिलाकर सिरेमिक आधारित जेल जैसा पदार्थ बनाया है। जहां हड्डी का नुकसान हुआ है, वहां इसे इंजेक्ट किया जाएगा। इसके बाद वहां नई हड्डी बन जाएगी। यह दंत चिकित्सा में भी कारगर साबित होगी। कंपनी निदेशक डा. गोपाल पांडेय ने बताया कि यह पदार्थ सीमेंट की तरह है। टूटी हुई हड्डी जब जोड़ी जाती है तो बीच में खाली जगह में इस उत्पाद को भरा जा सकता है। आइआइटी निदेशक प्रो. अभय करंदीकर ने बताया कि इससे अभूतपूर्व बदलाव आएगा और हड्डी या संयुक्त विकारों से पीड़ित मरीजों के लिए वरदान साबित होगा।

कंपनी से करार के बाद अस्पतालों में होगा उपचार : सोमवार को आइआइटी कानपुर और आर्थो रेजेनिक्स कंपनी के बीच हुए इस प्रौद्योगिकी लाइसेंस समझौते के दौरान संस्थान के उपनिदेशक प्रो. एस. गणेश, इनोवेशन एंड इन्क्यूबेशन प्रभारी प्रो. अमिताभ बंद्योपाध्याय, सह पीआइसी प्रो. अंकुश शर्मा, तकनीक के आविष्कारक प्रो. अशोक कुमार, कंपनी के निदेशक डा. गोपाल पांडेय और डा. सुधीर रेड्डी मौजूद रहे। प्रो. अमिताभ ने बताया कि तकनीक हस्तांतरित किए जाने से जल्द अस्पतालों में इसका इस्तेमाल होगा।

शरीर की हड्डी के साथ समन्वय बैठाएगी कृत्रिम हड्डी : इस तकनीक में आस्टियोइंडक्टिव (हड्डी उपचार प्रक्रिया) और आस्टियोप्रोमोटिव (नई हड्डी के विकास के लिए सामग्री) के गुण हैं। यह तकनीक जैव-संगत है। सिरेमिक आधारित उत्पाद शरीर की आस्टियोब्लास्ट कोशिकाओं (हड्डी के निर्माण और हड्डी रिमाड्डक्षलग के लिए जिम्मेदार कोशिकाएं) के साथ समन्वय बैठाता है। अभी तक डाक्टर हड्डी के किसी विकार को दूर करने के लिए शरीर के दूसरे स्थान से हड्डी का टुकड़ा लेकर उसे इम्प्लांट करते थे।

डायबिटीज-हृदय रोग

आज का हेल्थ टिप्स: जीवनशैली की ये तीन आदतें बढ़ा सकती हैं डायबिटीज-हृदय रोगों का खतरा, अभी से हो जाएं सावधान (Amar Ujala: 20220331)

<https://www.amarujala.com/photo-gallery/lifestyle/fitness/bad-habits-for-diabetes-and-heart-health-know-what-not-to-do-to-avoid-diseases>

बीमारियों से बचाव के तरीके

मौजूदा समय में दुनियाभर में ज्यादातर स्वास्थ्य समस्याओं के लिए खराब जीवनशैली की आदतों को प्रमुख कारक के तौर पर देखा जा रहा है। आहार से लेकर शारीरिक गतिविधियों में कमी तक, पिछले कुछ वर्षों में हम कई वजहों से ऐसी आदतों को अपनाते जा रहे हैं, जो तमाम तरह की बीमारियों के खतरे को बढ़ा देती हैं। डायबिटीज, हाई ब्लड प्रेशर, गठिया और शरीर के अंगों में दर्द के लिए इसे ही प्रमुख कारक के तौर पर देखा जा रहा है। गड़बड़ जीवनशैली और शारीरिक निष्क्रियता के कारण मेटाबॉलिज्म प्रभावित होता है जिसके कारण कई तरह की स्वास्थ्य समस्याओं का जोखिम बढ़ जाता है।

स्वास्थ्य विशेषज्ञों के मुताबिक डायबिटीज और हाई ब्लड प्रेशर दोनों को ही 'साइलेंट किलर' डिजीज के तौर पर जाना जाता है। ये शरीर में कई अन्य तरह की बीमारियों के जोखिम को बढ़ा देती हैं। इसको कंट्रोल करना समय पर बहुत आवश्यक है। इन समस्याओं में दवाइयों के साथ स्वस्थ जीवनशैली पर

ध्यान देने की अधिक आवश्यकता होती है। अपने जोखिम कारकों को समझते हुए सभी लोगों को कम उम्र से ही इनकी रोकथाम की कोशिश करते रहनी चाहिए। आइए आगे की स्लाइडों में जानते हैं कि जीवनशैली की कौन सी खराब आदतें डायबिटीज-हृदय रोगों का खतरा बढ़ा सकती हैं?

डायबिटीड को कंट्रोल कैसे करें?

बढ़ती शारिरिक निष्क्रियता

ऑफिस में लंबे समय तक एक जगह पर बैठकर काम करते रहने से लेकर घर में छुट्टी के दिन बेड पर सोते रहने जैसी आदतों ने लोगों में शारिरिक निष्क्रियता को काफी अधिक बढ़ा दिया है। यह आदत कई तरह की स्वास्थ्य समस्याओं का कारण बन सकती है। पर्याप्त शारीरिक गतिविधि न करने से टाइप-2 डायबिटीज होने का खतरा बढ़ सकता है। शारीरिक गतिविधियां, रक्त शर्करा (ग्लूकोज), वजन और रक्तचाप को नियंत्रित करने में मदद करती हैं। शारीरिक गतिविधियों में कमी के कारण बैड कोलेस्ट्रॉल का स्तर भी बढ़ने लगता है जिससे हृदय रोगों का खतरा बढ़ जाता है।

अस्वास्थ्यकर आहार से बढ़ती हैं बीमारियां

आहार में गड़बड़ी

स्वस्थ शरीर के लिए आहार का स्वस्थ होना सबसे आवश्यक माना जाता है। हालांकि ज्यादातर लोगों में आहार से संबंधित गड़बड़ी की समस्या देखी जा रही है। फैट, कैलोरी और कोलेस्ट्रॉल से भरपूर आहार से आपको मधुमेह होने का खतरा बढ़ जाता है। आहार में गड़बड़ी मोटापा (मधुमेह-हृदय रोगों के लिए एक प्रमुख जोखिम कारक) को तेजी से बढ़ा देती है। स्वस्थ शरीर के लिए आहार में फाइबर और विटामिन्स से भरपूर चीजों को जरूर शामिल करें साथ ही फैट, कोलेस्ट्रॉल, नमक और चीनी की मात्रा कम करें।

स्वस्थ शरीर के लिए जरूरी है अच्छी नींद

पर्याप्त नींद न लेना

अच्छी नींद शारीरिक-मानसिक स्वास्थ्य के लगभग सभी पहलुओं में महत्वपूर्ण भूमिका निभाती है। इसमें होने वाली कमी आपको गंभीर रूप से बीमार बना सकती है। नींद पूरी न होने से ब्लड प्रेशर का खतरा बढ़ जाता है जिसके कारण हृदय रोगों की समस्या हो सकती है। इसके अलावा इस आदत के कारण मधुमेह और स्ट्रोक का जोखिम भी बढ़ जाता है। सभी लोगों को रोजाना रात में 6-8 घंटे की नींद जरूर पूरी करनी चाहिए।

Omicron

T cell immune responses seen a year after infection (The Hindu: 20220331)

<https://www.thehindu.com/sci-tech/t-cell-immune-responses-seen-a-year-after-infection/article65259153.ece?homepage=true>

Neutralising antibodies were detectable even 12 months after infection in most individuals.

Strong and longstanding T cell responses were seen even when people were not reinfected or vaccinated

Like in most countries where the Omicron variant had become dominant and caused a high spike in daily cases, the third wave in India propelled by Omicron caused a large number of reinfections in unvaccinated people and breakthrough infections even among the fully vaccinated. However, across the world, the Omicron variant was found to cause only mild disease in fully vaccinated people and in those with previous infection. This was real-world proof that previous infection and/or full vaccination with two doses provide protection against progression of disease to a severe form.

Protective effect

Laboratory studies undertaken in all countries have only studied the neutralisation ability of sera of people who have recovered from COVID-19 and people who have been fully vaccinated. This could only shed light on the ability of past infection and/or vaccination to prevent infection by highly transmissible variants with immune escape. But no studies have been done to evaluate the protective effect of memory T cell immune responses against severe disease 12 months after primary infection. A new study from Wuhan addresses this gap. The results were published in the journal *The Lancet Microbe*.

Independent of severity

The researchers found that neutralising antibodies were detectable even 12 months after infection in “most individuals”, and it remained stable 6-12 months after initial infection in people younger than 60 years. The researchers found that “multifunctional T cell responses were detected for all SARS-CoV-2 viral proteins tested”.

And most importantly, the magnitude of T cell responses did not show any difference immaterial of how severe the disease was. While the ability of antibodies to neutralise was nearly absent against the Beta variant, it was reduced in the case of the Delta variant.

In contrast, the T cell immune responses were detectable in all the 141 individuals tested 12 months after infection and even when they had lost the neutralising antibody response. And the T cell responses were responding against the Beta variant in most of the 141 individuals.

Neutralising antibodies

“SARS-CoV-2-specific neutralising antibody and T cell responses were retained 12 months after initial infection. Neutralising antibodies to the D614G, Beta, and Delta were reduced compared with those for the original strain, and were diminished in general. Memory T cell responses to the original strain were not disrupted by new variants,” they write. “Our findings show that robust antibody and T cell immunity against SARS-CoV-2 is present in majority of recovered patients 12 months after moderate-to-critical infection.”

Robustness of T cells

The study reveals the durability and robustness of the T cell responses against variants, including Delta, even after one year of infection. Most importantly, the robust and longstanding T cell responses were seen in people who have not been reinfected or vaccinated. This would mean even in the absence of vaccination, a person who has been infected by the virus even one year ago would have robust immune responses, which would offer protection against disease progressing to a severe form requiring hospitalisation. But the neutralising antibodies were found to diminish at the end of 12 months.

It might be recalled that except the Oxford vaccine (AstraZeneca), none of the trials evaluated the ability of the vaccines to prevent infection. The endpoint of all vaccine efficacy studies was to evaluate if vaccinated people developed symptomatic disease or not.

Lack of studies

However, the booster doses aggressively pushed by vaccine manufacturers are for preventing infection. And even when the neutralising antibodies increase after a booster shot, they do drop after a few months. No studies have been done to evaluate if booster doses improve T cell immune responses, which is the most important criterion of vaccination.

In the case of neutralising antibodies, the researchers found that 121 (85.8%) were positive for neutralising antibodies at the 6 months while there was a slight reduction at the end of 12 months as only 115 (81.6%) were positive for neutralising antibodies.

The neutralising antibody titres did not show any difference based on disease severity — mild or moderate — or in those younger than 60 years. However, the neutralising antibody titres declined in older people and in people with critical disease.

Response to strains

A year after infection, 115 of 141 (82%) individuals had neutralising antibodies against the original strain from Wuhan, China. “In contrast, only 68 (48%) had neutralising antibodies against D614G, 32 (23%) had neutralising antibodies against the Beta variant, and 69 (49%) had neutralising antibody responses against the Delta variant”, they write.

Genetics

How mitochondria adapted to living within cells (The Hindu: 20220331)

<https://www.thehindu.com/sci-tech/how-mitochondria-adapted-to-living-within-cells/article65260518.ece?homepage=true>

Cellular powerhouse: Mitochondria are well known to be integral parts of the eukaryotic cell. They are dubbed the power houses of the cell.

Billions of years ago, a prokaryotic organism called archaea captured a bacterial endosymbiont

An organism that has been around from 2 billion years ago has given biologists from Centre for Cellular and Molecular Biology, Hyderabad (CCMB), a clue as to how mitochondria became an inseparable part of animal and plant cells. The researchers, led by Rajan Sankaranarayanan, identify two key transformations, one in the molecule known as DTD for short and another in the transfer-RNA (tRNA).

“Our lab works on a molecule called D-aminoacyl-tRNA deacylase (DTD). We observed some unexpected biochemistry of eukaryotic DTD that could be explained based on endosymbiotic origin of complex eukaryotic cell organelles.” Endosymbiosis is an intense form of symbiosis when one of the organisms is captured and internalized by the other.

Today, mitochondria are well known to be integral parts of the eukaryotic cell. They are dubbed the power houses of the cell, because they help in generating energy in the form of ATP within the cell, powering it. But they were not always part of the animal and plant cells. Once, about two billion years ago, a prokaryotic organism (without a nucleus) called archaea captured a bacterial cell. The bacterial cell learnt to live within the archaea as an endosymbiont. How this happened has been an important question among biologists. “In the late 19th century, microscopists observed that organelles like chloroplast [and later mitochondria] undergo division inside eukaryotic cells that resembles bacterial division, which led them to suspect that these organelles might have arisen from bacterial endosymbionts,” say Jotin Gogoi and Akshay Bhatnagar from CCMB and the first authors of the paper published in Science Advances.

Ancient organism

By studying an organism known as jakobid, which has been around since before animals and fungi branched off from plants and algae in the process of evolution, the researchers have identified two adjustments that had to take place to facilitate the integration of the two organisms. These adjustments were made in the process of optimisation when the two organisms merged together, evidently for compatibility. The researchers show that these

changes, in a protein (DTD) and a tRNA (carrying an amino acid glycine for protein synthesis) are crucial for the successful emergence of mitochondria.

Amino acids come with two types of handedness – left-handed and right-handed. Accordingly, their names have a prefix of L or D. All life forms function with only the L-amino acids, in addition to achiral glycine, in proteins. Performing the role of a proofreader, the protein DTD removes D-amino acids from entering protein synthesis. Before it got incorporated into the eukaryotes, when it was part of the bacterial cell, DTD would not act on glycine which is essential for protein synthesis. This preference was changed so that it would be compatible with the eukaryotic cell. “Eukaryotic DTD has changed its recognition code preference in order to avoid untoward removal of glycine, which is a crucial ingredient required for the same. We show in our study that this switch in the recognition code is important without which DTD will be toxic to the eukaryotic cell,” says Rajan Sankaranarayanan of CCMB, who led the work and in whose lab the research was carried out.

Switch in base

The other change identified by the researchers is that mitochondrial tRNA(Gly) has changed its critical nucleotide base from U73 to A73, in order to be compatible with eukaryotic DTD. “This switch in the so-called discriminator base of mitochondrial tRNA(Gly) is important for avoiding removal of glycine and thus stopping protein synthesis in mitochondria – which can be toxic,” says Dr Sankaranarayanan. This means that before the change took place in the nucleotide base, glycine would be removed, which would have been toxic for the cell as protein synthesis would not take place without glycine.

Case of plant cells

Next, the researchers plan to investigate these evolutionary dynamics in plant cells. Plant cells have two DTDs and two organelles equipped with translation apparatus of their own. “The work for first time shows how such molecular optimisation strategies are essential, when derived from different ancestors like archaea and bacteria, for the successful emergence of mitochondria and hence all of eukaryotic life as we see today including humans,” says Dr Sankaranarayanan.

Mitochondria are well known to be integral parts of the eukaryotic cell

They are dubbed the powerhouses of the cell, because they help in generating energy in the form of ATP within the cell, powering it

Once, about two billion years ago, a prokaryotic organism (without a nucleus) called archaea captured a bacterial cell

Cardiovascular disease

Eating two servings of avocados a week may lower cardiovascular disease risk? Here's what study says (Hindustan Times: 20220331)

<https://www.hindustantimes.com/lifestyle/health/eating-two-servings-of-avocados-a-week-may-lower-cardiovascular-disease-risk-heres-what-study-says-101648703256017.html>

Avocados contain dietary fibre, unsaturated fats especially monounsaturated fat (healthy fats) and other favourable components that have been associated with good cardiovascular health.

A new study has suggested that eating two or more servings of avocado weekly was associated with a lower risk of cardiovascular disease.

The study was published in 'Journal of the American Heart Association'.

Avocados contain dietary fibre, unsaturated fats especially monounsaturated fat (healthy fats) and other favourable components that have been associated with good cardiovascular health. Clinical trials have previously found avocados have a positive impact on cardiovascular risk factors including high cholesterol.

Researchers have believed this is the first, large, prospective study to support the positive association between higher avocado consumption and lower cardiovascular events, such as coronary heart disease and stroke.

"Our study provides further evidence that the intake of plant-sourced unsaturated fats can improve diet quality and is an important component in cardiovascular disease prevention," said Lorena S. Pacheco, PhD, M.P.H., R.D.N., lead author of the study and a postdoctoral research fellow in the nutrition department at the Harvard T.H. Chan School of Public Health in Boston.

"These are particularly notable findings since the consumption of avocados has risen steeply in the U.S. in the last 20 years, according to data from the U.S. Department of Agriculture," she added

For 30 years, researchers followed more than 68,780 women (ages 30 to 55 years) from the Nurses' Health Study and more than 41,700 men (ages 40 to 75 years) from the Health Professionals Follow-up Study. All study participants were free of cancer, coronary heart disease and stroke at the start of the study and living in the United States.

Researchers documented 9,185 coronary heart disease events and 5,290 strokes during more than 30 years of follow-up. Researchers assessed participants' diet using food frequency questionnaires given at the beginning of the study and then every four years. They calculated

avocado intake from a questionnaire item that asked about the amount consumed and frequency. One serving equalled half of an avocado or a half cup of avocado.

The analysis found:

1. After considering a wide range of cardiovascular risk factors and overall diet, study participants who ate at least two servings of avocado each week had a 16 per cent lower risk of cardiovascular disease and a 21 per cent lower risk of coronary heart disease, compared to those who never or rarely ate avocados.
2. Based on statistical modelling, replacing half a serving daily of margarine, butter, egg, yoghurt, cheese or processed meats such as bacon with the same amount of avocado was associated with a 16 per cent to 22 per cent lower risk of cardiovascular disease events.
3. Substituting half a serving a day of avocado for the equivalent amount of olive oil, nuts and other plant oils showed no additional benefit.
4. No significant associations were noted in relation to stroke risk and how much avocado was eaten.

"The study's results have provided additional guidance for health care professionals to share. Offering the suggestion to replace certain spreads and saturated fat-containing foods, such as cheese and processed meats, with avocado is something physicians and other health care practitioners such as registered dietitians can do when they meet with patients, especially since avocado is a well-accepted food," Pacheco said.

"These findings are significant because a healthy dietary pattern is a cornerstone for cardiovascular health, however, it can be difficult for many Americans to achieve and adhere to healthy eating patterns," said Cheryl Anderson, PhD, M.P.H., FAHA, chair of the American Heart Association's Council on Epidemiology and Prevention.

"We desperately need strategies to improve intake of AHA-recommended healthy diets -- such as the Mediterranean diet -- that is rich in vegetables and fruits," said Anderson, who is a professor and dean of the Herbert Wertheim School of Public Health and Human Longevity Science at University of California San Diego.

"Although no one food is the solution to routinely eating a healthy diet, this study is evidence that avocados have possible health benefits. This is promising because it is a food item that is popular, accessible, desirable and easy to include in meals eaten by many Americans at home and in restaurants," Cheryl concluded.

This story has been published from a wire agency feed without modifications to the text. Only the headline has been changed.

Covid variant risk

WHO warns of virulent Covid variant risk (Hindustan Times: 20220331)

<https://www.hindustantimes.com/world-news/who-warns-of-virulent-covid-variant-risk-101648694719281.html>

The WHO released its updated Covid-19 Strategic Preparedness, Readiness and Response Plan, with the organisation's chief Tedros Adhanom Ghebreyesus hoping it will be the last.

The World Health Organization on Wednesday laid out three possible paths that the Covid-19 pandemic might follow in 2022 -- with a new, more virulent variant the worst-case scenario.

The WHO said the most likely way forward was that the severity of disease caused by the virus would wane over time, due to greater public immunity.

But the UN health agency also said a more dangerous variant of concern than Omicron could be lurking round the corner.

The WHO released its updated Covid-19 Strategic Preparedness, Readiness and Response Plan, with the organisation's chief Tedros Adhanom Ghebreyesus hoping it will be the last.

It lays out three possible scenarios for how the third year of the pandemic will pan out.

"Based on what we know now, the most likely scenario is that the virus continues to evolve, but the severity of disease it causes reduces over time as immunity increases due to vaccination and infection," Tedros told a press conference.

He said periodic spikes in cases and deaths might occur as immunity wanes, which may require occasional booster vaccinations for vulnerable people.

"In the best-case scenario, we may see less severe variants emerge, and boosters or new formulations of vaccines won't be necessary," he said.

"In the worst-case scenario, a more virulent and highly transmissible variant emerges. Against this new threat, people's protection against severe disease and death, either from prior vaccination or infection, will wane rapidly."

Tedros said that scenario would require significantly altering the currently-available vaccines, and then making sure they get delivered to the people most vulnerable to severe disease.

Maria Van Kerkhove, the WHO's technical lead on Covid-19, said the virus still has "a lot of energy left", going into the third year of the pandemic.

Canadian Prime Minister Justin Trudeau on Wednesday, March 30, met with the Williams Lake First Nation in British Columbia which had said 93 unmarked graves of children were found at the site of the former St. Joseph's Mission Residential School in Williams Lake.

Last week, more than 10 million new cases and 45,000 deaths were reported to the WHO, which said the number of new infections would be far higher as testing rates have dropped.

At the end of last week, more than 479 million confirmed cases had been registered throughout the pandemic, and more than six million deaths, although WHO acknowledges that the true toll could be several times higher.

Children Vaccination

Impact Of Covid19 In Children Vaccination Schedules (The Indian Express: 20220331)

<https://indianexpress.com/article/parenting/sponsored-parenting/impact-of-covid19-in-children-vaccination/>

The Coronavirus disease (COVID-19) pandemic has led to significant interruptions in immunization programs globally alongside the disruption of other routine health services.

Impact of Covid19 in children vaccination

The Coronavirus disease (COVID-19) pandemic has led to significant interruptions in immunization programs globally alongside the disruption of other routine health services. 230 lakh children missed out on basic vaccines which have to be delivered through routine immunization services in 2020 and up to 170 lakh children likely did not receive even a single vaccine during the entire year worldwide. Coming to the Indian scenario nearly 31 lakh children missed their first vaccination dose against diphtheria, tetanus, and whooping cough in 2020. India is now experiencing a large dropout, with DTP-3 coverage falling from 91% to 85%. A large study that was conducted recently showed in different countries showed that the most common reason for missed childhood vaccination was getting affected by COVID-19 at the vaccination clinic (15%). Other reasons for missed vaccination include worry about getting COVID-19 when leaving the house (11%), following healthcare provider recommendations (10%), clinic closure (10%), or wanting to save services for people who need the most(10%). Due to the fear of contracting the Covid infection a lot of parents avoided taking their kids for even the very basic primary vaccinations. This increases their chance to catch the dreaded vaccine-preventable diseases like measles, mumps, rubella,

diphtheria, pertussis, and tetanus, thus leading to an overall increase in childhood morbidity and mortality.

What should be done if certain due vaccines are missed?

This is a common situation in the COVID-19 pandemic. The parents have to be reassured that the vaccination schedule can be resumed without any need to restart the series. Multiple vaccines in one sitting and using the minimum permitted interval between two doses of the same inactivated vaccine can be practiced to complete the schedule in the shortest possible time. Multiple epidemics of measles occurred in 2015 in Guinea because of the interrupted immunization during the Ebola outbreak.

The principles need to be followed as recommendation by IAP

- The birth dose of OPV, BCG, and hepatitis B vaccine should be administered within 24 hours of birth or as early as possible after birth. If for any reason this is not done, these vaccines should be administered at the first contact with the healthcare facility.
- The primary vaccination series and the vaccines for outbreak-prone diseases should be prioritized for example DPT, hepatitis B, Hib, OPV/IPV, rotavirus, PCV, influenza, varicella, and MR/MMR. Postponing these vaccines is to be avoided.
- Multiple vaccines can be administered in the same session without fear of any increased adverse effects.
- We may use the shortest acceptable interval between two doses of the same vaccine if the prospective vaccinee reports to a health facility; and is unlikely to come for follow-up. For inactivated primary vaccines this is 28 minus 4 days i.e. 24 days.
- When missed (because of the logistic issues of transport etc.), hepatitis A vaccines and HPV vaccines may be administered after the priority vaccines have been given.
- When missed (because of the logistic issues of transport etc.), the booster dose(s) may be given at the next earliest available opportunity.
- If a child is in a healthcare facility for any reason, and eligible for immunization, this opportunity should be utilized for administering eligible vaccines.

Vaccine storage temperature will affect the efficacy of the vaccine

Yes, of course, vaccines must be stored properly from the time they are manufactured until they are administered. Potency is reduced every time a vaccine is exposed to an improper condition. This includes overexposure to heat, cold, or light at any step in the cold chain. Once lost, potency cannot be restored. The mere getting vaccine will not prevent infections unless it is properly stored.

Alzheimer's disease

Risk of Alzheimer's linked to cholesterol, blood sugar levels at age 35 (Medical News Today: 20220331)

<https://www.medicalnewstoday.com/articles/risk-of-alzheimers-linked-to-cholesterol-blood-sugar-levels-at-age-35#Underlying-mechanisms>

A new study suggests cholesterol and blood sugar at age 35 help predict Alzheimer's disease, which is one of the leading causes of death among Americans 65 and older. Dani Ferrasanjose/Getty Images

Researchers recently investigated the link between cardiovascular measures and Alzheimer's disease.

They found that low high-density lipoprotein (HDL or "good" cholesterol), high triglycerides, and blood glucose levels from age 35 are associated with increased Alzheimer's risk.

The authors conclude that early intervention to maintain healthy HDL, triglyceride, and glucose levels may lower Alzheimer's risk.

Alzheimer's disease (AD) is the fifth leading cause Trusted Source of death among Americans age 65 and older. There are no proven ways to prevent or slow cognitive decline caused by AD.

Studies Trusted Source show that while vascular risk burden from age 55 predicts Trusted Source AD, whether or not this link is present in younger individuals is unknown.

Knowing how early this link begins could help researchers understand more about AD as a life-course disease.

Recently, researchers from Boston University investigated the relationship between AD and vascular measures using longitudinal data.

They found that low HDL cholesterol, high triglyceride levels, and high glucose levels in the blood from age 35 are linked to AD later in life.

The study appears in the journal Alzheimer's and Dementia Trusted Source.

"Many people know high cholesterol is a risk factor for heart disease and other health conditions, but they don't realize it's a risk factor for dementia too," Dr. Katy Bray, public engagement manager at Alzheimer's Research UK, who was not involved in the study, told Medical News Today.

“To keep the brain healthy as we age, the best evidence is to eat a balanced diet, not smoke, drink within recommended guidelines, exercise regularly, and keep blood pressure and cholesterol in check.”

Data analysis

For the study, the researchers included data from 4,932 individuals who were a part of the Framingham Heart Study. Participants had an average age of 37 upon enrollment and underwent nine examinations every 4 years until the age of 70.

At each examination, researchers measured participants’:

HDL and low-density lipoprotein (LDL or “good”)cholesterol

blood glucose levels

body mass index (BMI)

systolic and diastolic blood pressure

number of cigarettes smoked per day

From the second examination onward, the participants also underwent cognitive assessments to track the progression of cognitive decline.

After analyzing the data, the researchers found an inverse relationship between AD and HDL measured at the first, second, sixth, and seventh examinations.

The study also links AD to higher triglyceride levels at the first, second, fifth, sixth, and seventh examinations, independent of medication.

Meanwhile, high blood glucose was significantly linked to the development of AD at every exam.

The researchers also found no association between AD and LDL, BMI, smoking, or blood pressure at any examination.

Underlying mechanisms

MNT also spoke with Dr. Allison B. Reiss, an associate professor of medicine at NYU Long Island School of Medicine and a member of the Alzheimer’s Foundation of America’s Medical, Scientific, and Memory Screening Advisory Board. Dr. Reiss was not involved in this research.

“The brain is full of cholesterol and needs cholesterol to develop and produce nerve cells,” she explained.

“The balance and transport of cholesterol within the brain are carefully controlled, and lipids are very important in brain function. Most prominent of the lipid-related proteins in the brain is ApoE, a protein that transports lipids in the brain and elsewhere.”

“Some HDL particles contain ApoE (apoE-rich HDL), and this type of apoE-rich HDL is most concentrated in the brain. The quality and quantity of apoE-rich HDL may partially explain the Alzheimer’s disease-HDL link,” she continued.

Xiaoling Zhang, Ph.D., assistant professor of medicine and biostatistics at Boston University School of Medicine, one of the study’s authors, told MNT that improved blood flow in the brain might also explain some of their findings.

She explained that HDL could increase transportation and thus reduce the accumulation of amyloid-beta plaques, which are protein build-ups characteristic of AD.

When asked about the link between AD and glucose levels, Dr. Zhang said that higher glucose levels in the blood are linked to higher brain glucose concentrations and more severe plaques in AD brains.

“We know that the brain relies on glucose for energy, but excess glucose in the brain can undergo chemical reactions that make it damaging and inflammation-inducing. When glucose levels are high over extended periods, chronic neuroinflammation may result.”

– Dr. Reiss

“Another problem with high glucose is that it prompts the release of insulin to lower the glucose, and this can lead to wildly fluctuating sugar levels in the brain, which is very bad for nerve cells,” she explained.

The researchers conclude that early intervention to maintain healthy HDL, triglyceride, and glucose levels may lower AD risk.

However, they also note several limitations to their work. As their cohort was white, they say their findings may not translate to other demographics.

They further say that due to limitations in their study design, their results may not accurately reflect age-specific trends. Since the researchers did not take fasting blood samples at the first two examinations, their results may be slightly skewed.

When asked about the main practical takeaways from the study, Dr. Reiss said: “Eating less sugar and processed foods and exercising regularly are good for every organ and especially the brain and heart. Monitoring blood glucose and the lipid profile and watching HDL are great preventative measures.”

“We do not have drugs that raise HDL without causing a lot of side effects and, if the HDL is not of good quality, raising it is pointless. For now, the best way to support HDL levels is through exercise and physical activity,” she concluded.

Mental Health

Pandemic impact on mental health: A global overview (Medical News Today: 20220331)

<https://www.medicalnewstoday.com/articles/pandemic-impact-on-mental-health-a-global-overview>

After 2 years of living with COVID-19, the physical toll of the pandemic is evident, in terms of cases, hospitalizations and deaths, but what of the mental effects? Frontline workers and young people have been some of the hardest hit, but no one has escaped the impact of the pandemic. In this Special Feature, Medical News Today investigates how the pandemic has affected mental health worldwide and asked experts how we might address this issue.

After 2 years of COVID-19, what does mental health look like, worldwide? Image credit: Boy_Anupong/Getty Images.

All data and statistics are based on publicly available data at the time of publication. Some information may be out of date. Visit our coronavirus hub and follow our live updates page for the most recent information on the COVID-19 pandemic.

In May 2020, the United Nations reported that stress and anxiety levels had risen substantially during the COVID-19 pandemic. Since then, several waves of COVID-19 have left their mark around the globe.

The World Health Organization (WHO) defines Trusted Source mental health as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.”

Mental health issues occur when people cannot cope well with the stresses of life. A pandemic is a stressor that few might have envisaged having to cope with.

Stay informed with live updates on the current COVID-19 outbreak and visit our coronavirus hub for more advice on prevention and treatment.

Fear and isolation

The fear of contracting SARS-CoV-2, the virus that causes COVID-19, together with concern about economic effects, has caused anxiety and stress.

Frontline workers, particularly medical professionals, have experienced burnout Trusted Source and chronic stress from the increased pressure.

Multiple lockdowns, physical distancing, and fear of infection have increased isolation, loneliness, and anxiety, all factors that, according to Lee Chambers, psychologist and founder of Essentialise Workplace Wellbeing, are “massive catalysts” for mental health issues.

Other experts agree. According to Dr. Adrian James, president of the Royal College of Psychiatrists:

“Social isolation, loneliness, stress and anxiety, domestic abuse, bereavement, financial difficulties, unemployment and severe COVID-19 infection are all factors that might have caused people’s mental health to deteriorate.”

Worldwide increases in mental health issues

In 2019, a study in *The Lancet* Trusted Source reported that some 12.5% of the global population would have an issue with their mental health at some time in their life. In March 2022, the WHO reported that worldwide, anxiety and depression increased by 25% Trusted Source in the first year of the pandemic.

Lee Chambers has seen evidence of this: “If I’m honest, from my perspective, the incidence of everything [mental health-related] has increased. [...] It has been amplified for people who are already suffering with certain conditions. They’ve found less access to services and challenges in managing their everyday existence.”

He added: “One thing that continually got flagged was new incidences. People who had never previously identified as having any mental health condition had actually disclosed [...] or, in surveys, said they were struggling significantly. That is interesting, as it shows the impact is reaching beyond those who were already impacted pre-[COVID-19].”

Early impact

The beginning of the pandemic appears to have had the greatest impact on mental health. A report from the European Parliament Research Service highlighted increases in mental health concerns in many European countries at this time.

Eight out of 10 people in Italy reported a need for psychological care; in the Netherlands, over a third of the population reported anxiety.

Similar patterns became evident in the United States. In a study of people aged 18-35, 80% of survey respondents reported significant depressive symptoms, while 61% reported moderate or severe anxiety.

In April 2021, the National Institute of Mental Health reported Trusted Source that rates for anxiety, depression, stress-related symptoms, substance misuse Trusted Source, and suicidal thoughts were almost double those expected before the pandemic.

However, concerns that suicide rates might rise appear to have been unfounded as, according to the Centers for Disease Control and Prevention (CDC) Trusted Source, these have fallen slightly.

In the United Kingdom, mental health referrals to the National Health Service (NHS) have reached record levels, as Dr. James told MNT:

“The pandemic has had a major impact on already stretched specialist mental health services, which received a record 4.3 million referrals during 2021. It’s also resulted in the largest mental health backlog in NHS history with at least 1.4 million people waiting for treatment.”

Who is most affected?

An analysis Trusted Source of more than 200,000 people in northern Europe found that younger respondents and those with previously diagnosed mental illness reported poorer mental health during the first months of the pandemic. However, mental health issues are not confined to these groups.

Sharon Greene, L.C.S.W., who specializes in treating anxiety and depression in children and adolescents of Providence Saint John’s Child & Family Development Center in Santa Monica, CA, told MNT of the pandemic’s widespread impact:

“I actually feel everyone has been impacted across the board in different ways. Of course, frontline workers and health professionals were at the forefront and may have experienced more trauma. We are only starting to understand the mental health impacts of the pandemic.”

Young people may be less at risk to contract a SARS-CoV-2 infection, but they have not escaped the pandemic’s effects. Disruption to education, work, and social interactions have all taken their toll.

In August 2020, the International Labour Organization described the “impact of the pandemic on young people to be systematic, deep and disproportionate.”

Several studies have found that students have experienced higher levels Trusted Source of symptoms of depression and post-traumatic stress disorder Trusted Source (PTSD) during the pandemic.

“Younger people [...] are more likely to fall into negative coping mechanisms because they don’t have the experience and they live in a very digital world — that’s a challenge for them. Dealing with uncertainty when you are at that adolescent-adult transition is hard enough when everything is bright and rosy.”

– Lee Chambers

It is unsurprising, therefore, that a recent OECD report states that the “[p]revalence of symptoms of anxiety and depression has risen dramatically among young people and remains higher than pre-crisis levels.”

On the frontline

For medical professionals, the pressures have been intense. Not only have they faced continued exposure to SARS-CoV-2, but they have also had to cope with the demands of

their changing roles during the pandemic, which has inevitably taken a toll on their mental health.

A meta-analysis of studies into mental health effects of the pandemic on healthcare workers found that anxiety, depression, and stress were most prevalent among this cohort. Many healthcare workers also reported burnout, insomnia, fear of infection, and suicidal thoughts.

It is not just those dealing with COVID-19 patients in a hospital setting who have been affected. A global review of studies published in the British Journal of General Practice found high levels of work-related stress, anxiety, and burnout among primary care doctors in many countries.

Lee Chambers reported another issue among medical professionals:

“There is a real feeling of... I suppose the term for it is ‘moral injury,’ a real feeling that you are putting yourself at risk of disease. You are on the front lines really making the best of a crisis and then you’ve got certain people in positions of influence just doing as they please, having parties. [...] That’s one of the things that’s really distressing a lot of medical professionals.”

The worrying impact of this is that many doctors may leave the profession. The British Medical Association found in a recent survey that 21% of respondents were considering leaving the NHS, and 25% were considering taking a career break because of the stress of working through the pandemic.

In the survey, one GP expressed what may well be the views of many, noting that, “[i]f things don’t change in the next few weeks, I do worry that many colleagues will leave the profession, not because they have failed, but [because] the Government and the system failed them.”

Taking care of mental health

Nevertheless, there are ways to help protect mental health through these challenging times. According to Lee Chambers, communication is key: “I look at resilience as expressive rather than suppressive, an ability to express yourself rather than trying to be robust and resist. Endurance generally leads to burnout [...] Being able to talk and articulate and find someone you trust to express where you are currently at.”

He added: “Resilience is like a battery. The main ways to recharge it are the fundamentals — sleeping, nutrition, movement. For me, it’s trying to build those into your life.”

People should not be afraid to seek help and to recognize the warning signs that they may need help.

“Is it pervasive? Is it prolonged? And, is it something that is increasingly spiraling out of our control. At that point, we need to look to see how we can access professional services.”

– Lee Chambers

Dr. James echoed this advice, noting that “[p]eople who are struggling with their mental health can talk to their [primary care doctor] or self-refer directly to a local psychological therapy service.”

A need for comprehensive support

“No one should have to experience this alone — there [is] a range of options for support to get through this.”

– Dr. Adrian James

The pandemic has exposed gaps in support, particularly in some sectors of society. Lee Chambers made this clear: “So often a little bit of external support from our network can be beneficial. Not everyone has that; it’s a privilege.”

He added: “Inequalities have been opened up even further. We should look at navigating the challenges we face and attempting to make an equitable recovery, [...] accepting that some groups have had it more challenging than others.”

Commenting on possible solutions, he said: “I would like to see more joined-up services, from education to medical to businesses to communities. If we could join the dots, it would make a massive difference.”

Dr. James stressed that these services must be financed properly: “It is [...] vital that mental health services are backed by a fully-funded plan to ensure people can access the care they need.”

In a press briefing ^{Trusted Source} from March 2, 2022, Dr. Tedros Adhanom Ghebreyesus, WHO director-general further emphasized the importance of the pandemic-related mental health crisis, noting that it should be “a wake-up call to all countries to pay more attention to mental health and do a better job of supporting their populations’ mental health.”