

INA-RESPOND

INDONESIA RESEARCH PARTNERSHIP ON INFECTIOUS DISEASE



KEMENTERIAN
KESEHATAN
REPUBLIK
INDONESIA

NEWSLETTER

April 2023



From Our Partner

**How The NIH
Works with
International
Scientists**

Sports & Lifestyle

**Glutes “The
Sleeping Dragon”**

Comic Corner

**One for All, All for Planet:
A Brief Introduction of One Health,
EcoHealth, and Planetary Health**

SELAMAT HARI RAYA
IDUL FITRI

1 SYAWAL 1444 H

MOHON MAAF LAHIR
DAN BATIN



HEALTH POLICY AGENCY
MINISTRY OF HEALTH REPUBLIC OF INDONESIA

2023

INA-RESPOND newsletter

EDITOR-IN-CHIEF

M. Karyana

EXECUTIVE EDITOR

Herman Kosasih

CREATIVE DIRECTOR

Dedy Hidayat

ART DIRECTOR

Antonius Pradana

SENIOR WRITERS

Adhella Menur, Aly Diana,
Yan Mardian

REVIEWERS & CONTRIBUTING WRITERS

Adhella Menur, Caleb L. Halim,
Eka Windari R., Herman Kosasih,
I Wayan Adi Pranata, Lois E. Bang,
Melinda Setyaningrum, Mila Erastuti,
Nurhayati, Nur Latifah Hanum, Retna
Mustika Indah, Restu Amalia, Riza
Danu Dewantara,

THANK YOU

INA-RESPOND Network & Partners



INA-RESPOND Secretariat

Badan Kebijakan Pembangunan
Kesehatan, Gedung 6, Lantai 3.
Jl. Percetakan Negara no.29,
Jakarta 10560

content

April 2023 Edition | issue #115

3 Study Updates

6 From Our Partner

10 Language & Culture

13 Sport & Lifestyle

16 Comic Corner

FEATURES

INA-RESPOND Newsletter

InVITE & PROACTIVE Study Updates

By: Eka Windari R., I Wayan Adi Pranata, Lois E. Bang, Melinda Setiyaningrum, Nur Latifa Hanum, Retna Mustika Indah, Restu Amalia, Riza Danu Dewantara

InVITE

As of March 6th, 2023, out of the 700 participants who enrolled in the study, 166 (23.71%) have ended their participation, while 534 (76.29%) are still ongoing. The study is being conducted at three different sites, and all sites are currently on visit 4. The details of each site's visits are listed in Table 1.

It is worth noting that the study has encountered some challenges in retaining participants. Out of the 166 subjects who ended their participation, 105 (15%) completed the study, while 44 (6.29%) withdrew from the study due to personal reasons or loss of interest. Reasons for withdrawal also included participant decision. Additionally, some participants did not receive the complete vaccine regimen within 12 months of enrollment, which resulted in three (0.43%) subjects being excluded from the study. Two (0.29%) subjects were not allowed to continue because continua-

tion was not in their best interest, and one (0.14%) subject was non-compliant with study procedures. Unfortunately, one (0.14%) subject passed away during the study, and ten (1.43%) subjects had other reasons for ending their participation.

Furthermore, the study has been tracking symptomatic visits among participants, and the details of these visits as of March 6th, 2023, are provided in Table 2. It is important to note that while some participants have experienced COVID-19 symptoms, this does not necessarily mean that they have contracted the disease.

Site	Symptomatic Visit		
	# of visit	Positive	Negative
01	97	59	37
02	14	6	8
03	2	1	1
Total	113	66	46

Table 2. Symptomatic Visit Details per March 6, 2023

Site	Screening / Visit 1	Enrollment Failure	Enrolled	Ongoing	Add. Visit 1	Visit 2	Add. Visit 2	Add. Visit 3	Visit 3	Agree Ext.	Not Agree Ext.	Ext. Visit 4	Ext. Visit 5
01	345	2	343	287	88	326	314	306	315	287	28	186	0
02	228	1	227	152	97	214	191	188	195	152	43	151	0
03	130	0	130	95		130			129	95	35	51	0
Total	703	3	700	534	185	670	505	494	639	534	106	388	0

Table 1. Details of Visits per site per March 6, 2023

INA104

As of April 12, 2023, 4,281 (98.7%) of the 4,336 enrolled subjects have completed their study, while 55 (1.3%) subjects are still ongoing. The remaining subjects are participants from sites 520 and 700. Of the completed study subjects, 3,459 had already finished the study by the follow-up visit in month 36, while 497 subjects were lost to follow-up, 248 subjects passed away, 38 subjects moved to an area outside of the PROACTIVE site, 32 subjects withdrew their consent, five subjects tested HIV-negative, and two subjects were suspended (imprisoned). The study's progress from each site is described in **Figure 1**, while detailed information on the completed study participants is available in **Table 1**.

To ensure the accuracy and integrity of the study, final site monitoring activities will take place at sites 520 and 700 in May 2023. These activities will

provide an opportunity to review the data, validate the results, and ensure that the study adhered to the protocol. The monitoring activities will help identify any data discrepancies and address them before final data quality review.

The close-out study visit for site 550 is scheduled for mid of May 2023 while the close-out activities for sites 510 and 650 are scheduled for June 2023. This visit marks the end of the study activities for the sites and will provide an opportunity to reconcile any study final administrative tasks, such as final Ethic Committee reporting and essential documents reconciliation and long-term archiving. The data collected from this site will be analyzed and then combined to the overall results of the study.

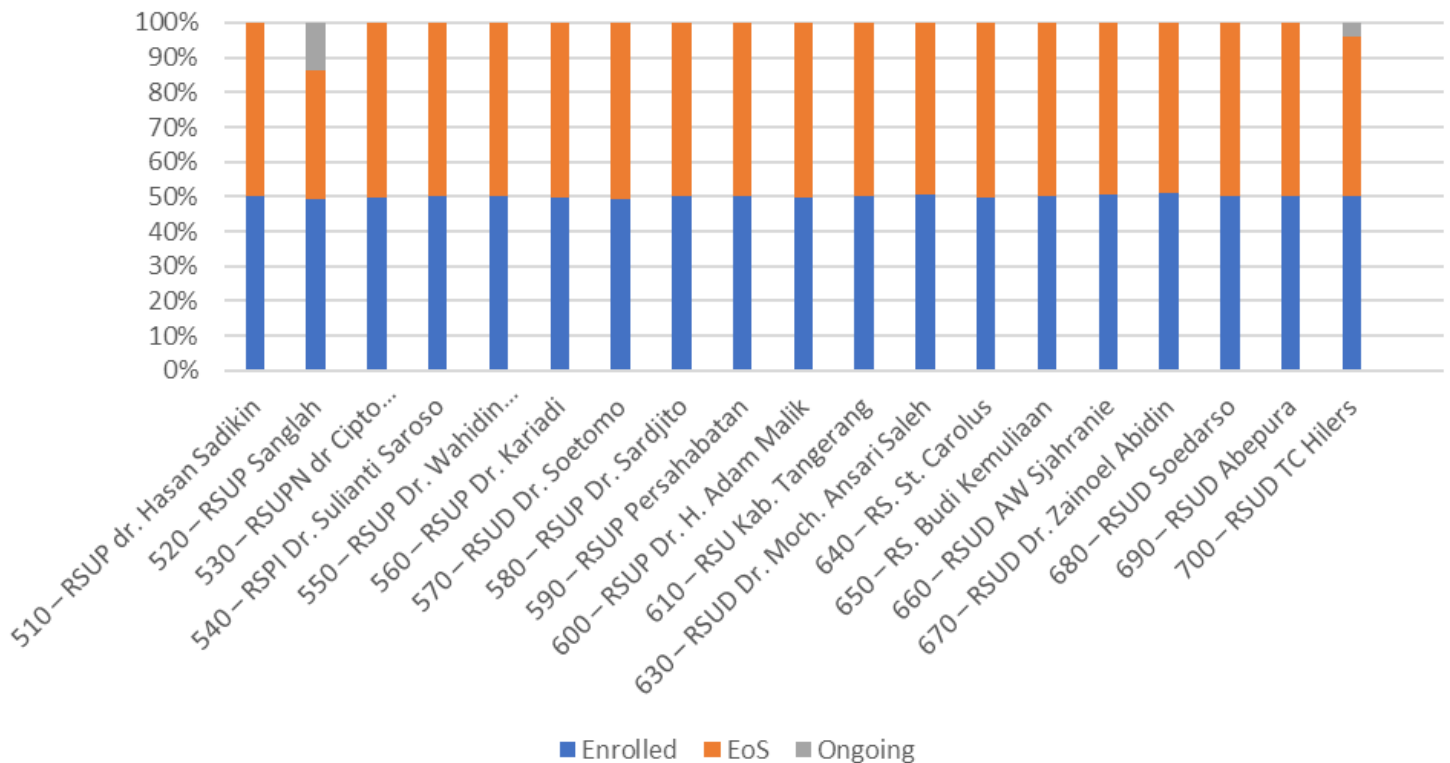


Figure 1. Site’s Study Progress

No	Site	End of Study Duration/Complete	Withdrew Consent	Participants with HIV negative	Moved	Death	Investigator Discretion	Lost to Follow Up	Other	Total
1.	510 – RSUP Dr. Hasan Sadikin	189	1	0	5	5	0	6	0	206
2.	520 – RSUP Sanglah	100	0	0	1	4	0	1	0	106
3.	530 – RSUPN Dr. Cipto Mangunkusumo	284	0	0	0	17	0	15	0	316
4.	540 – RSPI Dr. Sulianti Saroso	132	0	0	3	8	0	37	0	180
5.	550 – RSUP Dr. Wahidin Sudirohusodo	240	0	0	5	25	0	67	0	337
6.	560 – RSUP Dr. Kariadi	199	1	3	0	15	0	16	0	234
7.	570 – RSUD Dr. Soetomo	261	13	0	4	21	0	21	0	320
8.	580 – RSUP Dr. Sardjito	168	1	0	5	6	0	38	0	218
9.	590 – RSUP Per-sahabatan	186	0	1	0	37	0	22	0	246
10.	600 – RSUP Dr. H. Adam Malik	253	3	0	2	21	0	61	0	340
11.	610 – RSU Kabupaten Tangerang	272	6	0	4	20	0	22	2	326
12.	630 – RSUD Dr. M. Ansari Saleh	215	1	0	1	7	0	17	0	241
13.	640 – RS St. Carolus	211	0	0	0	1	0	15	0	227
14.	650 – RSU Budi Kemuliaan Batam	179	3	0	5	9	0	33	0	229
15.	660 – RSU A. Wahab Sjahranie	183	0	0	2	6	0	26	0	217
16.	670 – RSUD Zainoel Abidin	89	0	0	0	11	0	21	0	121
17.	680 – RSUD Soedarso	75	0	0	0	11	0	29	0	115
18.	690 – RSUD Abepura	84	2	1	1	7	0	42	0	137
19.	700 – RSUD TC Hillers	139	1	0	0	17	0	8	0	165
	Total	3459	32	5	38	248	0	497	2	4281

Table 1. Subjects' End of Study Reasons

INA-RESPOND Newsletter

HOW THE NIH WORKS WITH INTERNATIONAL SCIENTISTS

By: Aaron Neal

FROM OUR PARTNER

Most of us are very familiar with the beginnings of INA-RESPOND, either from descriptions during presentations, summaries in publications [1], or first-hand experience. The history usually starts with former Minister of Health Endang's visit to the NIH campus in Bethesda, Maryland, in 2010. During that visit, then-Minister Endang's meetings with Dr. Roger Glass, Dr. Anthony Fauci, and others laid the foundation for the Indonesia-U.S. partnership that we all support to this day. However, did you know that government-to-government research partnerships are rare at the NIH and are not the typical way that the NIH works with international scientists?

You may already know that the NIH is the world's largest funder of biomedical research [2]. Using online tools like the Research Portfolio Online Reporting Tools (RePORT) [3], we can see that in 2022 NIH funded 57,430 research-related awards totaling \$32.804 billion dollars. While much of that funding was given to U.S. investigators and institutions, 513 awards totaling over \$226 million dollars were given directly to foreign institutions. That may not seem like much in comparison to the overall number of awards given, but direct funding awards are only one way in which the NIH supports international scientific research. In this article, I will highlight the following different ways the NIH works with international scientists: extramural direct awards, extramural indirect awards, intramural collaboration, and government-to-government partnerships.

Before explaining the different types of research support mechanisms used by the NIH, it is helpful to understand two basic terms- intramural and extramural. Intramural research is the research that is conducted by NIH scientists at NIH facilities in the U.S., the majority being located on the main NIH campus in Bethesda, Maryland. Extramural research is the research that is conducted outside of the NIH by non-NIH investigators, the majority being professors, physicians, and scientific professionals at universities, medical schools, and other institutions. Each year, most of the NIH budget actually leaves the NIH in the form of extramural grants, contracts, and cooperative agreements. In 2022, over 84% of the \$45.178 billion dollar NIH budget was awarded for extramural research to more than 300,000 researchers at more than 2,500 institutions. Only 10% of the NIH budget went toward supporting the nearly 6,000 investigators in the intramural research program [4].

Given the NIH's significant financial support of extramural research, it is not surprising that one of the primary ways the NIH works with international scientists is through extramural direct awards. There are many types of extramural awards, each coded with an alpha-numeric identifier like R21 or K99. To easily understand the basics of the extramural award system, it is helpful to focus on an example such as the NIH's flagship research grant, the R01 award. An R01 is a traditional grant that funds investigator-initiated research, usually for a period of up to 5 years. Throughout the year, NIH



Institutes and Centers (ICs) release funding opportunity announcements (FOAs) that let the scientific community know that grant funding is available (see an example at [5]). An FOA can be very broad and cover any area of health-related research, or it can be very specific and cover a narrow area of high-priority research. In either case, the research idea and proposal must come from the investigator, which is why the research is termed “investigator-initiated.” In each FOA, the eligibility section specifies if “non-domestic (non-U.S.) Entities (Foreign Institutions)” are eligible to apply. When foreign institutions are eligible, an international scientist can craft their research ideas into a proposal and submit it for funding consideration. If the proposal receives a good score from a panel of expert peer-reviewers, it can be selected for funding by the NIH. This is a very simplified description of a process that can be quite complicated, usually taking at least 8 months from proposal submission deadline to funding [6]. Applying for direct grant funding can also be very competitive, with NIAID only funding the top 12% of R01 proposals it received in 2022 [7]. Investigators, whether in the U.S. or abroad, who have great research ideas, endure the long application process, and

are ultimately selected for funding are now recipients of extramural direct awards. The difficult step of actually conducting the research is next, and the NIH is generally hands-off during that process. Each grant recipient is assigned an NIH Program Officer with related subject matter expertise whose job is to help ensure that the grantee is on-track to complete the research that they proposed. Program Officers do not generally help design experiments, troubleshoot assays, analyze primary data, or co-author publications. However, they periodically check-in with grantees and can link them with unique NIH resources, introduce them to other experts in the field, and provide opportunities to get involved in shaping the direction of future research at the NIH and globally. If unforeseen challenges or issues with a grantee’s research arise, their Program Officer can help find ways to solve the problems or re-direct the research so that meaningful results can still be obtained. As you can see, the NIH works with these investigators in a very different way, mostly empowering their independence to drive health-related research forward through their own ideas and scientific interests.

When FOAs state that Foreign Institutions are not eligible, or during times of very high competition for funding, the NIH can work with international scientists through extramural indirect awards. In this instance, the term “indirect” is used when extramural direct awards given to U.S. investigators significantly involve non-U.S. investigators, formally as a “Foreign Component.” For various reasons an NIH FOA may restrict eligibility to U.S. institutions and investigators only. However, the FOA can still permit the inclusion of “Foreign Components.” In these arrangements, a U.S. investigator who is awarded the grant can use the funds to support research in a foreign country or with a foreign investigator. This could mean that the U.S. investigator travels internationally to conduct field work themselves, or more commonly, the U.S. investigator collaborates closely with an international investigator who is supported by funds from the NIH grant. The U.S. grantee still receives support from a Program Officer as described above, but that support also partially extends to the international investigator. Extramural indirect awards are also a great opportunity for international scientists to benefit from NIH funding and resources during times of very high competition for grants. International scientists, particularly from low- and middle-income countries, may be less competitive for NIH grant funding not because of their scientific ideas, but because of a lack of institutional resources, high in-country costs for conducting research, or inexperience with writing NIH-style research proposals. Rather than continuing to be excluded from the NIH scientific enterprise, those investigators can collaborate closely with more competitive U.S. investigators to build experience toward independent funding. A general example of this is NIAID’s recently established Centers for Research in Emerging Infectious Diseases (CREID) Network. The CREID Network FOA [8], which sought very specific research proposals, did not exclude Foreign Institutions from applying. How-

ever, the strong competition for the funding resulted in only one Foreign Institution (Institut Pasteur, Paris) being selected for a direct award. If you look at the CREID centers that were funded [9], you will see that all of them collaborate very closely with international investigators in low- and middle-income countries. Many of those relationships grew from longstanding investigator-to-investigator collaborations, and those international scientists are benefiting from extramural indirect awards by gaining access to NIH grant funding, building research capacity, and establishing a competitive track record of collaboration and publication to support their future independent applications. Another more familiar example is the INSIGHT Network, which receives significant funding from NIAID through a cooperative agreement awarded to the University of Minnesota. Though Dr. Jim Neaton and his team at the University of Minnesota received the award from NIH, international organizations that have participated in INSIGHT studies, like INA-RESPOND with ITAC, benefit from the NIH funding.

Similar to extramural indirect awards that rely on investigator-to-investigator collaboration on a research project, NIH intramural scientists can work directly with international scientists through intramural collaboration. The NIH’s approximately 1,200 intramural principal investigators receive core research funding from the NIH, so there are no award codes or competitive grant applications like in the extramural community. Intramural investigators generally have significant freedom in pursuing their cutting-edge research program, allowing them to initiate relevant collaborations anywhere, at any time, at any scale, and for any duration. Investigators in an NIH IC like NIAID frequently collaborate internationally, a good example being Dr. P’ng Loke and his collaboration with Malaysian investigators. Dr. Loke, who is originally from Malaysia, recently joined the NIAID Labora-

tory of Parasitic Diseases as a Senior Investigator to continue his research on host immunity to helminth infections [10]. After establishing his laboratory, Dr. Loke revived his longstanding collaboration with Universiti Malaya parasitologists, which provides those investigators access to many of the advanced resources at NIAID, including sophisticated instruments and comprehensive core facilities. The collaboration even led to a Universiti Malaya professor completing a sabbatical at NIAID and a graduate student completing a postdoctoral fellowship in Dr. Loke's laboratory. Through this intramural collaboration, Dr. Loke and his international colleagues are conducting significant research, building local scientific capacity, and preparing his colleagues at Universiti Malaya to seek their own NIH extramural direct awards in the near-future.

Unlike Dr. Loke's individual collaboration with Universiti Malaya parasitologists, the NIH's government-to-government partnerships are anchored around participating countries and not around collaborating investigators. At the moment, NIAID does not have a government-to-government partnership with Malaysia like it does with Indonesia, Mexico, Liberia, Mali, Guinea, and the Democratic Republic of the Congo. Though that does not prevent Dr. Loke and others from working with Malaysian investigators, the nature of the collaboration is fundamentally different. Government-to-government partnerships are unique in that they are sustained separately from the normal extramural funding system, yet they are not restricted to research that aligns with a specific investigator's scientific focus like in the intramural research program. All of the government-to-government partnerships that NIAID contributes to grew from discussions at the Minister-level and are supported by a series of nation-to-nation agreements. The absence of pressure from the competitive extramural funding system, the joint commitments of

support from NIAID and the partner country, and the freedom to explore any scientific area of interest allows the partnerships to conduct research that might be less competitive though still significant in answering locally-relevant questions and building research capacity where it is needed most. The goals of conducting great science that also builds capacity toward independent funding are the same as the extramural and intramural mechanisms described earlier, though many of the constraints on funding, timelines, and reporting are less rigid.

I have broadly covered just a few ways that the NIH works with international scientists. Much more could be said about each mechanism, but I hope this brief introduction gives you a better perspective on the special nature of government-to-government research partnerships like the one we have with INA-RESPOND. While the Network continues to grow as it has since then-Minister Endang first visited the NIH, I foresee opportunities in the near-future to expand the partnership through both extramural and intramural collaboration, all of which will strengthen the Network as it strives toward independent, extramural direct awards.

References

1. <https://pubmed.ncbi.nlm.nih.gov/26219280/>
2. <https://pubmed.ncbi.nlm.nih.gov/26892771/>
3. <https://report.nih.gov/>
4. <https://www.nih.gov/about-nih/what-we-do/budget>
5. <https://grants.nih.gov/grants/guide/pa-files/PA-20-185.html>
6. <https://www.niaid.nih.gov/grants-contracts/overview-r01-process>
7. <https://www.niaid.nih.gov/grants-contracts/archive-paylines-fiscal-year>
8. <https://grants.nih.gov/grants/guide/rfa-files/RFA-AI-19-029.html>
9. <https://creid-network.org/>
10. <https://www.niaid.nih.gov/research/png-loke-phd>

INA-RESPOND Newsletter

BEYOND THE GENDER BINARY

By: Dedy Hidayat

LANGUAGE & CULTURE



Do you know what *Sam Smith*, a British singer-songwriter, *Jonathan Van Ness*, an American hairstylist, television personality, and author, *Indya Moore*, an American actor and model, *Quinn*, a Canadian professional soccer player, and *Chris Mosier*, an American triathlete, all have in common? If you guessed that they all identify as non-binary, you're correct!

What is Binary/Non-Binary?

In general, "binary" refers to something that has two possible values or states. In computing, binary refers to a numbering system that uses only two digits, 0 and 1, to represent all values. Binary is the language that computers use to store and process information. In the context of gender, "binary" refers to the traditional view of gender as a binary system with only two options: male or female. Ac-

ording to this view, individuals are assigned a gender based on the sex they were assigned at birth, typically based on physical characteristics such as genitalia.

On the other hand, "non-binary" refers to a gender identity that does not fit into the traditional categories of male or female. Non-binary individuals may identify as having a gender that is somewhere between or outside of the binary options, or they may reject the idea of gender altogether. Non-binary identities are part of the broader umbrella of transgender identities.

The binary view of gender has been challenged by various individuals and communities for many decades, but the challenge has become more prominent and visible in recent years, particularly in Western societies. The modern non-binary movement gained momentum in the 2010s, with increasing numbers of individuals identifying as non-binary and advocating for greater visibility and acceptance. This movement has been fueled by the growing recognition of the diversity of gender identities and experiences, as well as the increased visibility of non-binary individuals in media and popular culture.

Many non-binary individuals and allies have pushed for greater inclusivity and recognition of non-binary identities in a variety of contexts, including healthcare, education, and legal systems. This has led to changes such as the inclusion of

non-binary gender options on government forms and identification documents, and increased awareness and understanding of non-binary identities in medical and mental health settings.

Controversies

The challenge to the binary view of gender has been highly controversial, with some people strongly opposing the recognition and acceptance of non-binary identities.

One of the main controversies surrounding this issue is the belief held by some that gender is an innate, binary characteristic determined solely by biological sex, and that any deviation from this binary system is unnatural or even immoral. This belief has been used to justify discrimination and marginalization of non-binary individuals, as well as opposition to policies and practices that support gender diversity (non-binary identities.)

Controversy In Competitive Sport

The issue of non-binary individuals in competitive sports is a complex and controversial one. Some argue that non-binary individuals should be allowed to compete in sports in accordance with their gender identity. However, others argue that allowing non-binary individuals to compete could create an unfair advantage or disadvantage.

One of the main concerns is around hormone levels and physical differences between male and female athletes. Many sports have separate categories for male and female athletes based on physiological differences, such as muscle mass, bone density, and testosterone levels. However, these categories do not necessarily account for the existence of non-binary individuals who may have a mix of male and female physical characteristics.

Another concern is around fairness and competition. Some argue that allowing non-binary individ-

uals to compete in sports in accordance with their gender identity could create an unfair advantage or disadvantage. For example, a non-binary individual who was assigned male at birth but identifies as female may have a physical advantage over cisgender female athletes. Conversely, a non-binary individual who was assigned female at birth but identifies as male may face discrimination or be at a disadvantage compared to cisgender male athletes.

However, advocates for non-binary inclusion in sports argue that these concerns are based on outdated notions of gender and sex, and that non-binary individuals should have the right to compete in sports in accordance with their gender identity. They argue that sports should be inclusive of all individuals, regardless of their gender identity, and that non-binary individuals should not be forced to choose between participating in sports or being true to themselves.

Controversy In Language Use

One of the main controversies surrounding the non-binary issue in language and linguistics involves the use of pronouns to refer to individuals who do not identify as male or female. Some non-binary individuals prefer to use gender-neutral pronouns such as "they/them" or "ze/hir," while others prefer to be referred to using traditional binary pronouns such as "he/him" or "she/her." This has led to debates around the use of non-traditional pronouns and whether they should be recognized in formal language.

There has also been controversy around the language used to describe non-binary individuals and gender diversity more broadly. Some people may be resistant to changing the language they are accustomed to using, or may feel that the use of gender-neutral pronouns and inclusive language is unnecessary or confusing.

For example, if someone is used to using only he/him or she/her pronouns, they might struggle to remember to use a different pronoun for a non-binary person. They might also be unsure of how to use the pronoun correctly, such as whether to use "they" as a singular or plural pronoun. If we are unsure of someone's pronouns, it's always okay to ask politely and respectfully.

Additionally, if someone is not aware of non-binary identities or is uncomfortable with using non-binary pronouns, they might unintentionally misgender someone by using the wrong pronoun, which can be seen or considered hurtful and disrespectful.

Here are some commonly used non-binary pronouns:

- They/them: This is the most commonly used non-binary pronoun. It is a gender-neutral pronoun that can be used to refer to a single person.
- Ze/hir: This is another gender-neutral pronoun that some non-binary individuals use. Ze is used in place of he/she, while hir is used in place of him/her.
- Xe/xem: This is another set of gender-neutral pronouns that some non-binary individuals use. Xe is used in place of he/she, while xem is used in place of him/her.
- She/they or he/they: Some non-binary individuals may choose to use a combination of gendered and gender-neutral pronouns.

Furthermore, the use of gender-neutral language can challenge traditional grammatical rules and syntax. For example, the English language has traditionally used the pronoun "he" as a generic pronoun when referring to individuals of unknown gender, but this is not inclusive of non-binary indi-

viduals. This has led to debates around how to construct sentences that are inclusive of non-binary individuals while still adhering to traditional grammatical rules.

Conclusion

The controversies surrounding non-binary individuals in sports and language use are complex and multifaceted. In sports, the controversy often revolves around issues related to fairness and competitive advantage, as well as the practical implementation of non-binary policies. Some argue that allowing non-binary individuals to compete in sports that are traditionally gender-segregated could lead to unfair advantages, while others believe that such policies are necessary to ensure inclusivity and equality.

Regarding language use, the controversy generally revolves around issues of inclusivity and the recognition of non-binary individuals in language. Some people believe that language should be gender-neutral and inclusive of non-binary individuals, while others believe that traditional binary language is sufficient and that non-binary language is unnecessary or even confusing.

Ultimately, the controversies surrounding non-binary individuals in sports and language use highlight the ongoing struggles for inclusivity and acceptance of diverse identities in society. Indeed, there is no simple solution to these issues.

So..., do you think we should consider adding a "non-binary" option in our future study documents or perhaps use non-binary pronouns in our manuscripts?

INA-RESPOND Newsletter

GLUTES “THE SLEEPING DRAGON”

By: Caleb Leonardo Halim

In the human body, there are more than 600 muscles that function based on their respective functions, but among these muscles, the largest is the gluteal muscles or the buttocks muscles. The gluteal muscles, also known as the glutes, consist of three muscles located in the buttocks: the gluteus maximus, gluteus medius, and gluteus minimus. These muscles play a vital role in many movements, including walking, running, jumping, squatting, and maintaining body balance during daily activities. The glutes are also responsible for erecting our body, so we can stand and walk upright.

Anatomy

The gluteal muscles are among the largest and most powerful muscles in the human body. The gluteus maximus is the largest muscle of the group, originating from the pelvis bone and inserting into the thigh bone. The gluteus medius and minimus are located on the outer surface of the pelvis and attach to the outer part of the thigh bone.

Functions

The glutes muscles have several essential functions. First, they generate power and force during movements such as jumping, sprinting, and lifting heavy objects. Second, the glutes muscles help maintain good posture and prevent injuries. Weak glutes can lead to compensations in other areas of the body, which can cause pain and injury over time. Third, the glutes muscle is important for aesthetic purposes. Many people desire a toned and firm buttocks area, and the glutes muscle is the

primary muscle responsible for achieving this look. Strong glutes are also important for athletic performance, especially in activities that require explosive power, such as sprinting and jumping. Weak glutes can lead to poor posture, lower back pain, and knee injuries.

Here are [10 interesting facts](#) about the Gluteal Muscles:

1. The gluteus maximus is the largest muscle in the body, weighing an average of 2.2 kg.
2. The gluteal muscles are among the most powerful muscles in the body, capable of generating a significant amount of force.
3. The gluteus maximus is often used as a site for intramuscular injections, such as vaccinations or medications.
4. The gluteus medius is essential for stabilizing the pelvis during walking and running. Weakness in this muscle can lead to Trendelenburg gait, a condition where the opposite hip drops during the stance phase of gait.
5. The gluteal muscles are involved in many yoga poses.
6. The gluteal muscles are frequently targeted in strength training exercises such as squats, lunges, and deadlifts.
7. The gluteal muscles can become tight and overactive in people who sit for long periods, leading to lower back pain and hip dysfunction.

8. Strong glutes reduce the risk of certain injuries.
9. Women tend to have stronger glutes than men relative to their body weight.
10. There might be a correlation between big butts and longer lives.

Unfortunately, most of our daily work and activities involve sitting, making the glutes less active. Prolonged sitting can make our glutes, abs, hamstring, and hip flexor muscles inactive, as we don't need these muscles to maintain balance. Weakness or inactivity of these large muscles can create various problems in our body, such as lower back pain, hip, knee, and ankle pain. Therefore, it is essential to awaken/activate this significant muscle. Some exercises to awaken and strengthen the glutes muscles include squats, lunges, deadlifts, and hip thrusts, which target the glutes, hamstrings, and lower back muscles.

- Squats and all its variants: Squats are a great exercise for targeting the glutes, as well as the quadriceps. To perform a squat, stand with your feet shoulder-width apart, lower your body as if you are sitting back into a chair, and then stand back up.
- Lunges and all their variants: Lunges are another effective exercise for targeting the glutes, as well as the quadriceps. This exercise is harder than squats because you need a lot of core stability and balance while doing it. To perform a lunge, step forward with one foot and lower your body until your front knee is bent at a 90-degree angle. Then, push back up to the starting position and repeat on the other side.
- Deadlifts and all their variants: Deadlifts are a great exercise for targeting almost all the muscles in your body. The glutes, lower back, and



Figures (top to bottom):
squats, lunges, deadlift, and hip thrust

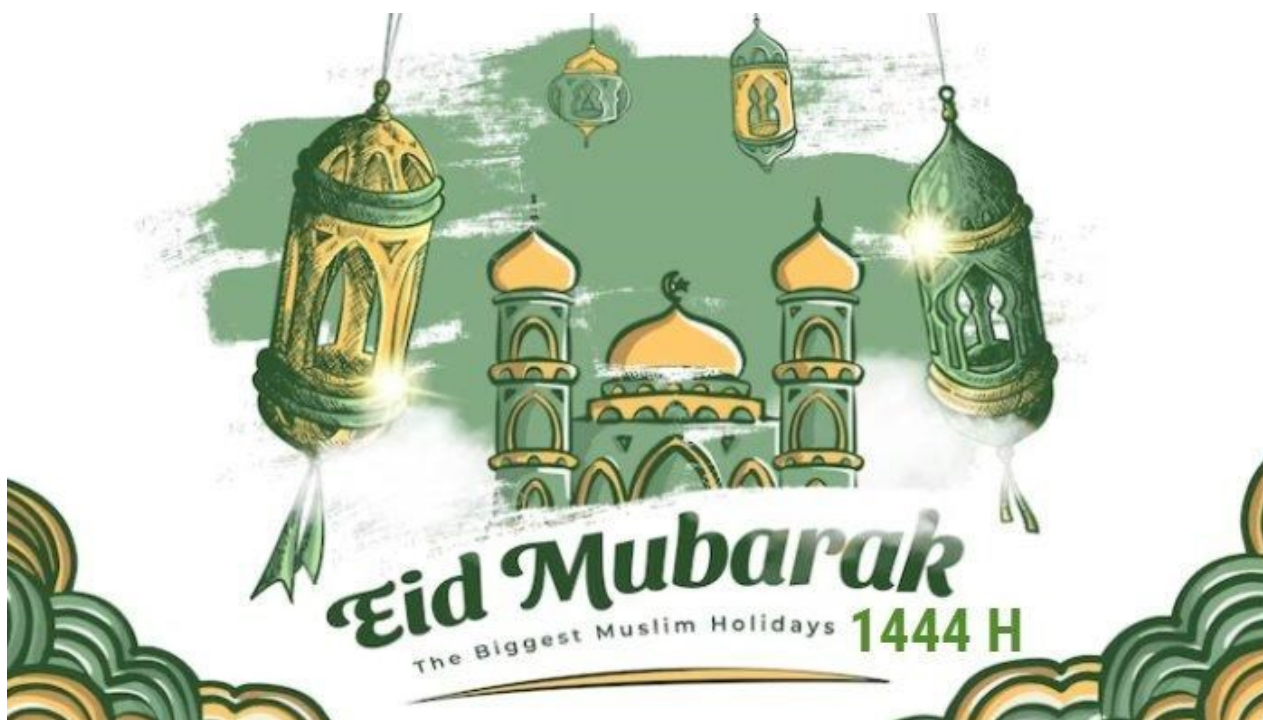
hamstrings are the three main muscle groups that work hard in this movement. To perform a deadlift, stand with your feet hip-width apart, bend your knees, and lower your torso until your hands reach the barbell.

- Hip Thrusts and all their variants: Hip Thrusts are a great glute-strengthening exercise because of the nature of the movement itself, which targets the glutes dominantly and hamstrings. This exercise also does not stress your spine in a vertical way. To perform a hip thrust, start seated on the floor with your knees bent, feet slightly wider than hip-distance apart. The upper back should be resting against the edge of the bench in the center of the bench. Place the weight bar across the hips. Hold onto the bar to keep it in place, but do not use your arms to lift it. Squeeze the glutes and press the bar straight up until the hips are in line with the shoulders and knees. Slowly lower the bar down until the hips are just a few inches off the floor. If you have any back pain and cannot bend your trunk, then this exercise is perfect

for you. You can put a gigantic load on this exercise. Just try it.

Conclusion

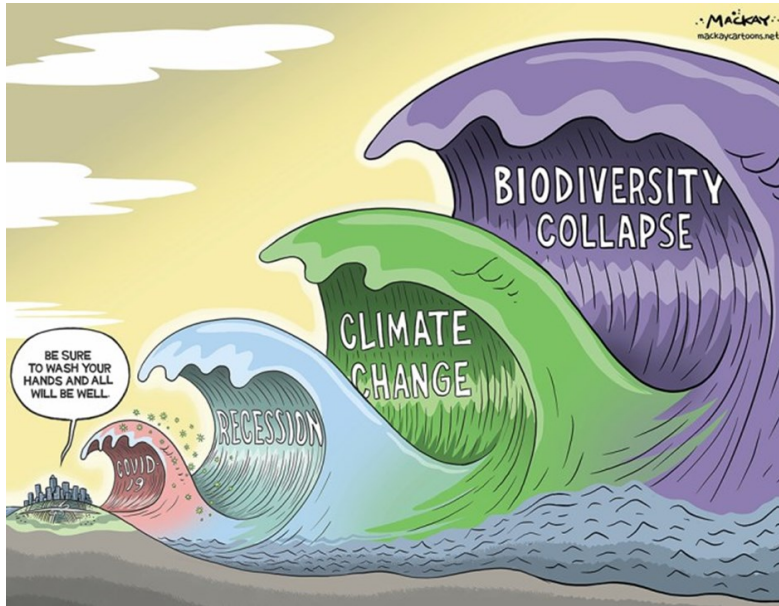
The gluteal muscles play a crucial role in many movements and are among the largest and most powerful muscles in the body. Strong glutes are important for athletic performance and can help reduce the risk of injuries. The gluteal muscles can become weak ("sleep") in people who sit for long periods, leading to lower back pain and hip dysfunction. Start awakening your 'dragon' and train it today to have nice, big, and round buttocks tomorrow.



INA-RESPOND Newsletter

ONE FOR ALL, ALL FOR PLANET: A BRIEF INTRODUCTION OF ONE HEALTH, ECOHEALTH, AND PLANETARY HEALTH

By: Aly Diana



COMIC CORNER

The COVID-19 pandemic has highlighted the critical importance of understanding the complex interactions between human, animal, and environmental health, as well as the social and economic factors that impact health outcomes. In a post-COVID-19 world, the One Health, EcoHealth, and Planetary Health approaches will play a vital role in promoting the health of the planet and its inhabitants. Here is a brief comparison of these approaches:

One Health: The One Health approach recognizes the interconnectedness of human, animal, and environmental health. It emphasizes the need to understand the complex interactions between different systems and to address the root causes of health challenges, such as infectious diseases, that emerge at the interface of humans, animals, and the environment.

In a post-COVID-19 world, the One Health approach can help prevent future pandemics by developing strategies to reduce the risk of zoonotic disease transmission. This may include monitoring and controlling wildlife trade, improving hygiene practices, and reducing the consumption of wild animals.

EcoHealth: The EcoHealth approach recognizes that human health and environmental health are interconnected, and that addressing environmental challenges is essential for promoting human health. The approach emphasizes the social and economic factors that impact human and environmental health, such as poverty, inequality, and social exclusion.

In a post-COVID-19 world, the EcoHealth approach can help address the underlying social and economic factors that contributed to the pandemic. This may include improving access to healthcare, reducing inequality, and promoting sustainable economic development.

Planetary Health: The Planetary Health approach focuses more broadly on the impacts of human activity on the environment and human health. It recognizes that human activity is changing the Earth's natural systems, and these changes are having profound impacts on the health of the planet and its inhabitants.

In a post-COVID-19 world, the Planetary Health approach can help address the root causes of the pandemic by promoting sustainable development practices and addressing climate change. This may include reducing greenhouse gas emissions, promoting renewable energy sources, and protecting natural ecosystems.

While these three approaches have distinct differences in their focus and scope, they share a common goal of promoting the health of the planet and its inhabitants by recognizing the complex interactions between different systems. By applying these approaches in a coordinated and collaborative manner, we can create a more resilient and sustainable future for all.

For example, the COVID-19 pandemic has highlighted the importance of the One Health approach in addressing zoonotic diseases. As we continue to experience the impacts of the pandemic, it has become increasingly clear that preventing future pandemics will require a coordinated effort across multiple sectors, including public health, agriculture, and wildlife conservation.

Similarly, the pandemic has highlighted the importance of the EcoHealth approach in addressing the underlying social and economic factors that contribute to poor health outcomes. The pandemic has disproportionately affected marginalized and disadvantaged communities, highlighting the need for policies and programs that promote equity and social justice.

Finally, the pandemic has underscored the importance of the Planetary Health approach in addressing the root causes of global health challenges. As we continue to confront the impacts of climate change and environmental degradation, it is clear that we need a holistic approach that recognizes the interconnectedness of human and environmental health.

In conclusion, the One Health, EcoHealth, and Planetary Health approaches all have a critical role to play in promoting the health of the planet and its inhabitants in a post-COVID-19 world. By working together and adopting a coordinated and collaborative approach, we can create a more sustainable and resilient future for all.

References:

Lerner H, Berg C. A Comparison of Three Holistic Approaches to Health: One Health, EcoHealth, and Planetary Health. *Front Vet Sci.* 2017 Sep 29;4:163. doi: 10.3389/fvets.2017.00163. PMID: 29085825; PMCID: PMC5649127

London School of Hygiene and Tropical Medicine 2020. Centre on Climate Change and Planetary Health Series Event: One Health, EcoHealth and Planetary Health: bridging disciplines for a post-COVID 19 world. <https://www.lshtm.ac.uk/newsevents/events/one-health-ecohealth-and-planetary-health-bridging-disciplines-post-covid-19>

Talukder B, vanLoon GW, Hipel KW. Planetary health & COVID-19: A multi-perspective investigation. *One Health.* 2022 Dec;15:100416. doi: 10.1016/j.onehlt.2022.100416. Epub 2022 Jul 22. PMID: 35892119; PMCID: PMC9304035



INA-RESPOND Newsletter

The Indonesia Research Partnership on Infectious Disease newsletter is an internal bulletin of INA-RESPOND research network intended to disseminate information related to the network's studies, activities, and interests to all members of the network as well as its sponsors and related parties.

The INA-RESPOND newsletter welcomes all network members and stakeholders to contribute by submitting articles related to the network's studies and interests. Send your articles or subscribe to our latest newsletter by sending an email to INA.Secretariat@ina-respond.net

