TRANSCRIPT

Health and Medicine

Dr. Sharuna Verghis

HEALTH KNOWLEDGE SOCIETY (HKS)

THEME II: POPULATION, SOCIETY HEALTH AND ILLNESS
Med1100/1200
Semester 1

MONASH University MALAYSIA

JEFFREY CHEAH SCHOOL OF MEDICINE & HEALTH SCIENCES

© 2024 Proprietary. Monash University. All rights reserved

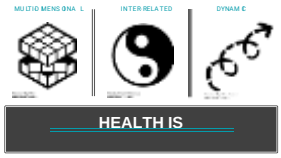
ABOUT HEALTH

If there is one thing we will learn in this module, it is the enormous complexity of the process that contributes to the production of health, disease and injury. This is because the transmission of pathogens and adaptation of pathogens are triggered by a host of factors, some beyond medicine.

We are talking about Health and Medicine – So, what is health?

See the World Health Organization's definition of health – two important points here. It's not just about the absence of disease – the practice of medicine is often focused on treating disease which links to the notion of health as the absence of disease – health is broader than medicine – So, beyond being the absence of disease, health is importantly about wellbeing

What else do we know about health?



First of all, when we talk about health, is not just about being free from disease. It is about holistic health and well-being.

- Health is multidimensional – it encompasses physical, intellectual, social, emotional, spiritual, and environmental dimensions. For example, we know today that chronic stress is associated with coronary heart disease
- Health is interrelated –for example, today, an estimated 60% of emerging human pathogens are zoonotic. Today, more than ever, we see how interlinked human, animal, and environmental health have become as animals and humans have shared risks to health from changing environments and how disease can be spread between animals and people.
- Health is dynamic – that means it is continuously evolving – because the potential for good health can change over the life course owing to different factors. An individual's potential for health may be biologically given. But it is also influenced by the social context of an individual's life, including their lifestyle and access to social support and resources.

CONTEMPORARY HEALTH CHALLENGES AND THE NEED FOR A HEALTH SYSTEMS RESPONSE

There are many contemporary challenges with regard to health requiring health systems to adapt and transition.

One of the biggest challenges in this era is health inequities that exist within countries and between countries. The issue of health inequities is complex because they are emerging within significant changes/transitions that are currently taking place.

Before we examine the major transitions in which health inequities are emerging, let us check out the meaning of health inequity.

An important point to remember in this definition of health inequity is that it is avoidable because it is about differences in health status as a result of modifiable social factors.

Now that we know what health inequity is let us explore some of these changes/transitions within which the challenge of health inequities is playing out.

One major challenge faced by many countries, including Malaysia, is the increasing proportion of aging people. Increased life expectancy is accompanied by diminishing physical and mental capacities and chronic illnesses. Health systems are challenged to support older populations with the losses associated with aging as well as to support recovery, adaptation and maintenance of their quality of life.

Another key challenge is the dual burden of disease. Many developing countries are experiencing a dual burden of disease – of increasing prevalence of chronic *non*-communicable diseases (NCDs) with infectious *diseases.* This puts a strain on already stretched health systems that have to manage the challenge of multimorbidity and ensure equity in the diagnosis and treatment of all these diseases.

Simultaneously, there are environmental risks brought about by humanitarian disasters, war, and conflict.

Finally, health inequities are taking place within transitioning health systems bursting at the seams in many countries. Healthcare workers are overworked, and the health budget is inadequate. Paperless hospitals with state-of-the-art technology co-exist with under-resourced healthcare facilities.

So, to sum up, health inequities are playing out within a complex milieu and within dynamically evolving health trends. And as we can see in this important paper published in the Lancet, health professionals in training such as yourselves, require the knowledge and skills not only to engage in patient-centered care but also to thrive in a population-centered health system. In HKS, we pay considerable attention to population-centered health systems.

So, let's start engaging with complexity!

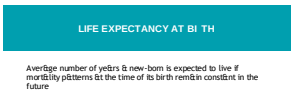
EXPLORING LIFE EXPECTANCY AT BIRTH AS AN INDICATOR OF HEALTH INEQUITY

So, in the first video we examined what health is. We saw the importance of social factors in the production of health, disease and injury.

Then in the second video we put a spotlight on one of the biggest health challenges of our times – which is health inequities. We also saw the importance of health professionals to be able to deal with these problems and thrive in a population centered health system.

In your E-book, we gave you examples of health indicators which are indicative of health inequities. So, in this video, we will look at one such population health indicator, namely, life expectancy at birth.

Life Expectancy at Birth



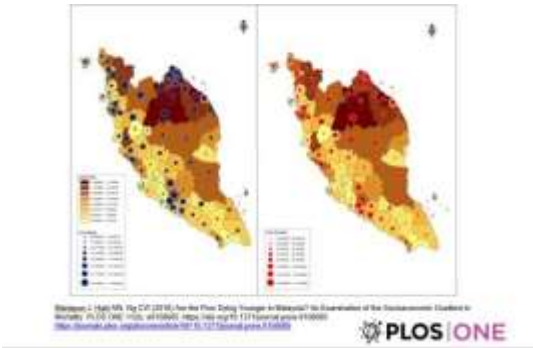
So, what is life expectancy at birth? It is the average number of years a newborn is expected to live if mortality patterns at the time of its birth remain constant in the future.

So, if we say that the life expectancy at birth of a Malaysian male in 2019 was 72 years, it means that a Malaysian male born in the year 2019 can **expect** to live for 72 years. So, this statistic is derived by adjusting for the number of people of different ages that died that year. It is only an estimate.

So, let's see what we can make of this map. When we look at the map, we see that the developed world in general enjoys some of the highest life expectancies – Canada, Australia, and parts of Europe. The life expectancy in these countries is 80+

This is followed by life expectancies in countries like Malaysia, China, and so on where people tend tolive over 70 years and more. Poorer countries tend to have lower life expectancies.

This is another interesting way of looking at health inequities in terms of neighborhood life expectancy. For example, many US cities have large life expectancy gaps, where on average, people in one neighborhood can expect to live two to three decades longer than their neighbors a few miles away



Poverty and Life Expectancy in Malaysia

Social deprivation impacts not only life expectancy but also years of healthy life lost.

In Malaysia, in a study done by Mariapun et al in 2016, when we look at mortality outcomes and potential years of life lost in different regions in Malaysia, we find the presence of such probable health inequities.

This figure shows the geographical distribution of the Socioeconomic Index and Potential Years of Life Lost (PYLL) for males and females in Peninsular Malaysia.

In the maps categorized by socio-economic indices, yellow areas represent high socio-economic advantage and dark brown areas, low socio-economic advantage. The size of the blue and red circles represents the extent of premature mortality among males and females respectively. The comparisons are between males or females geographically and not between males and females.

We see here that socially disadvantaged districts had worse mortality outcomes compared to advantaged districts.

Threats to health equity are preventable.

Looking at how factors such as poverty and neighborhood impact health, we can say some of the biggest threats to health and health equity are often preventable and avoidable.

STRUCTURAL FACTORS AND STRUCTURAL DISCRIMINATION

In the earlier section, we examined the role of socioeconomic inequality in life expectancy at birth and years of life lost.

In this section, we use the case example of HIV to discuss the role of structural factors in producing health and disease.

Structural factors in health encompass mechanisms which are rooted in the *key institutions and processes* of the socioeconomic and political context such as *public policies* (health policy, education policy, social protection policy), *social policies* (related to the labor sector, housing, land), *cultural and societal values, norms, governance,* and *macroeconomic policies* through which broader legal, political, economic, social, cultural, and environmental systems influence health, disease, and well-being.

Structural inequity is the systemic disadvantage of one social group compared to other social groups with whom they co-exist.

Take a look at the data on HIV released by UNAIDS in 2020. What can we learn about structural factors and structural discrimination from the global data on HIV? Think about how structural factors influence the rise in the number of new HIV infections causing them to even surpass target numbers.

1.7 Million
people acquired HIV in 2019, more thanthree times the 2020 target[1]

62% of new adult infections
globally are among
key populations and their sexual partners[3]

Adolescent girls and young women account for
1 in 4 infections
in Sub-Saharan Africa[2]

In 25 countries,
more than 50%
of adults have discriminatory attitudes towards people living with HIV[4]

1. The rise in the number of new HIV infections have surpassed target numbers.

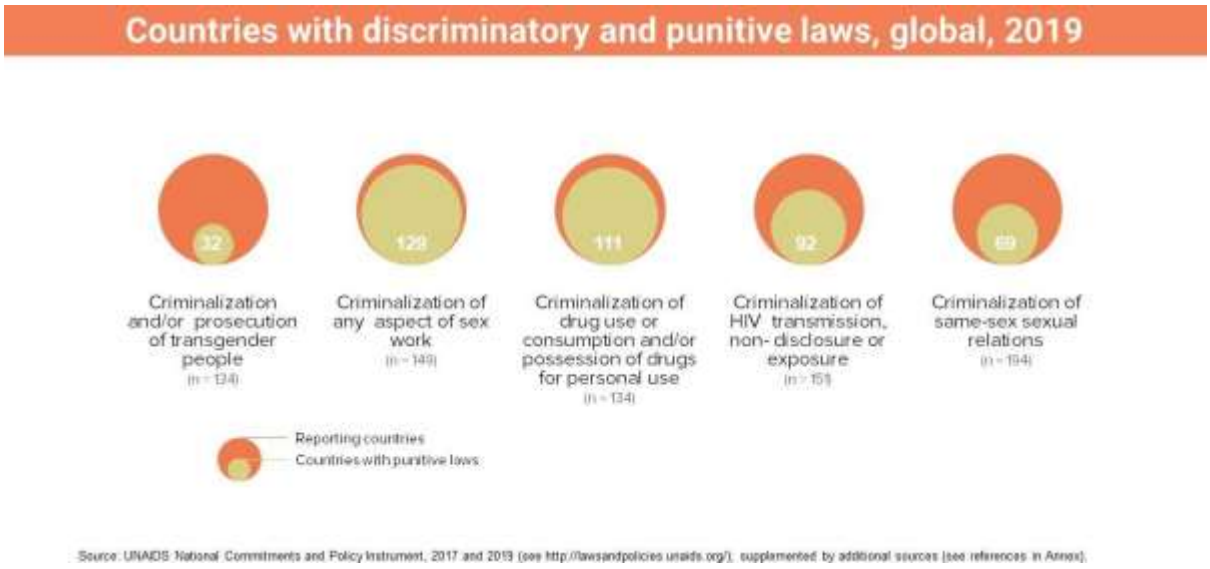
2. **Contributing Factors for high number of infections in adolescent girls and young women:**
   - Gender based violence. For e.g. in Burundi, the Congo, DRC, Mali and Sierra Leone, a third of ever-married or partnered women (aged 15–49 years) experienced physical or sexual violence from a male intimate partner in the past 12 months (before 2019). Sexual violence is commonly used as a strategy of war affecting young women.
   - Gender inequalities in education and finances
   - Economic reliance on transactional sex especially transgender women
   - Restricted social autonomy among women and lower access to sexual health services.
   - Relationships with older men and gender power disparities
   - Low condom use
   - Lower uptake of treatment by HIV+ men

UNAIDS, 2020

3. **Who are key populations**?
   - Men who have sex with men
   - Transgender people, especially transgender women
   - Sex workers
   - People who inject drugs
   - People living with HIV
   - People in prison and detention

   Stigma and discrimination, criminalization, poor access to social protection nets, and the local epidemiology of HIV combine to create unique risk factors which create vulnerability.

4. Countries with discriminatory and punitive laws, 2019



Based on global HIV data, can we say that structural factors mediate the transmission of the HIV virus?

Yes! HIV is a great case example to highlight the role of structural factors in mediating HIV transmission. Current HIV treatment regimens have demonstrated proven effectiveness in increasing life expectancy, controlling HIV replication, improving immunologic outcomes, improving the management of comorbidity and opportunistic infections, and reducing all-cause mortality among PLHIV. In fact, today, it is considered a manageable chronic disease.

Yet, we see that social and structural factors continue to fuel the epidemic. The virus does not discriminate against people. But social conditions that discriminate drive the infection underground and cuts off access of discriminated populations to care.

Specific populations are at higher risk of contracting HIV because of structural factors such as socio-cultural gender norms, discriminatory laws, and weak social protection policies among others. Ethnicity combined with gender is a significant risk factor for sexual violence during war. The discrimination against specific groups of people is embedded in the formal and informal structures (laws, policies, norms, culture) of societies, countries and economies.

Just as poverty impacts life expectancy and years of life lost, structural factors can influence morbidity and mortality.

THE BIOMEDICAL AND SOCIAL MODELS OF HEALTH

The biomedical model's dominance was fueled by a surge in empirical and scientific advancements dating back to the Age of Enlightenment.

Key milestones included Lavoisier's pioneering work in metabolic and respiratory Physiology, the germ theory developments by Pasteur and Koch, the Flexner Report's push for scientific rigor in medical education, and the mid-20th century expansion of the pharmaceutical industry, which solidified biomedical methods as central to medical practice in the realms of diagnosis, treatment, and healthcare delivery.

This model focuses on purely biological factors and excludes psychological, environmental, and social influences. It is characterized by a concentration on diagnosing and treating diseases, primarily through medical intervention. The biomedical model views the body as a machine that can be repaired, and it emphasizes the physical processes, like biochemistry, pathology, and physiology of a disease.

The rise of the social model of health is attributed to key historical factors:

Industrialization and Urbanization: In the 19th and 20th centuries, industrial and urban growth highlighted how living conditions and economic disparities impact health, especially in crowded cities with poor sanitation.

Epidemiological Transition: The shift from infectious to chronic diseases exposed the limitations of the biomedical model, emphasizing the role of lifestyle, environmental, and social factors in health.

Public Health Movements: Late 19th and early 20th-century public health movements focused on prevention and the role of social and environmental conditions, shifting from individual treatments to societal health measures.

Social and Political Changes: The 20th century's social and political shifts, including civil rights, feminism, and welfare states, drew attention to social determinants like poverty and education.

Research and Evidence: Research advancements showed the significant impact of social factors on health, emphasizing the role of stress, social networks, and socioeconomic status.

Global Health Initiatives: International organizations and health initiatives began to recognize the need for addressing health in a socio-economic context, supporting the social health model.

These factors led to a broader health understanding, acknowledging the interplay of biological, environmental, and social factors, and the increased acceptance of the social model of health.

The biomedical and social models of health offer distinct perspectives on the understanding of health and illness, shaping healthcare systems and policies worldwide.

These models are not in competition for superiority; rather, they complement each other, jointly providing a more comprehensive perspective on health.

Don’t forget to refer to page 17 in John Germov's "Second Opinion," for more details on the difference between these two models.

INTERSECTIONALITY

Having examined the importance of structural factors and structural discrimination in the production of health, let us explore the concept of Intersectionality which was first coined by Prof Kimberlé Crenshaw. Applying the framework of Intersectionality to health we observe that health inequity is situated at the intersection of multiple forms of discrimination related to a person's gender, race, social class, citizenship status etc.

I hope you appreciated the case study on HIV in relation to structural factors. We saw that when there is structural discrimination against women, they are at greater risk of acquiring HIV.

But women are not a homogenous group. Social power between women also varies depending on a combination of their race, ethnicity, class, education, citizenship, and migration status, and several other factors.
.

In other words, our social location determines social power. And social location, as we saw earlier, is the social position an individual holds in their society, and it depends upon a combination of factors such as gender, race, social class, age, ability, religion, sexual orientation, and geographic location.

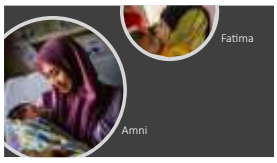
Intersectionality teaches us that the social power and privilege or social disadvantage we experience depends on our social location and how the defining factors of social location such as race, gender, class, sexual orientation and so on intersect with each other in each of our lives.
The term intersectionality was first coined by Prof Kimberlé Crenshaw, who showed

how as a black woman her experience of gender discrimination was different from that of a white woman's or a black man's. In Crenshaw's words, 'intersectionality is a lens through which youcan see where power comes and collides, where it interlocks and intersects'.

In the following deck of slides, we will explore in greater depth, what intersectionality means.

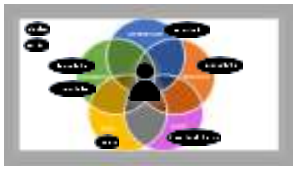
Think of an educated, Malaysian woman executive, Amni, and an undocumented refugee woman, Fatima, who works as a cleaner. They both go Hospital KL to deliver their baby. What would be the differences in their social location and how would that influence their social power?

Identify possible factors that would influence Amni's social location. Identify possible factors that would influence Fatima's social location.
Who would have greater social power as a result of their social location?
Amni or Fatima - Answer: Amni. Why?



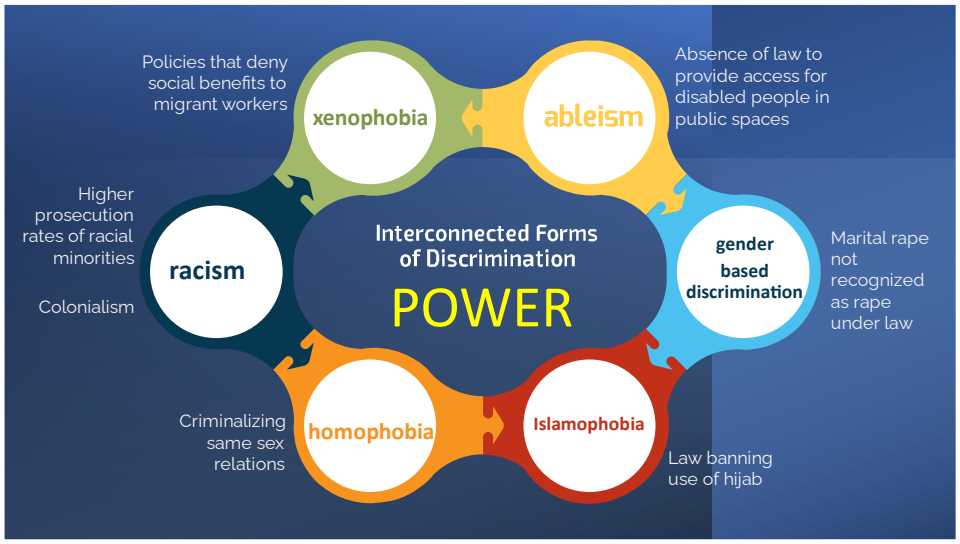
Continuing from the example of Amni and Fatima, intersectionality broadens our understanding of factors that shape social power, privilege and oppression

And the specific role of social identities – like race, gender, class, education, economic status, and immigration status – in collectively shaping her social location, social power, and access to healthcare services



Intersectionality teaches us that health vulnerabilities and risks are not just about one form of discrimination or a single identity factor.

Marginalized groups often face multiple, overlapping forms of discrimination based on their intersecting identities, which interact and compound. These forms of discrimination, such as racism related to racial identities, sexism related to sex or gender identities, xenophobia related to non-citizen identity, and so on, are deeply embedded in societal structures and norms.



This intertwined discrimination is further entrenched by systemic power imbalances, manifesting through laws, policies, and institutional structures. These structures often maintain disadvantages for certain groups, as seen in the legal and health systems, media, and education.

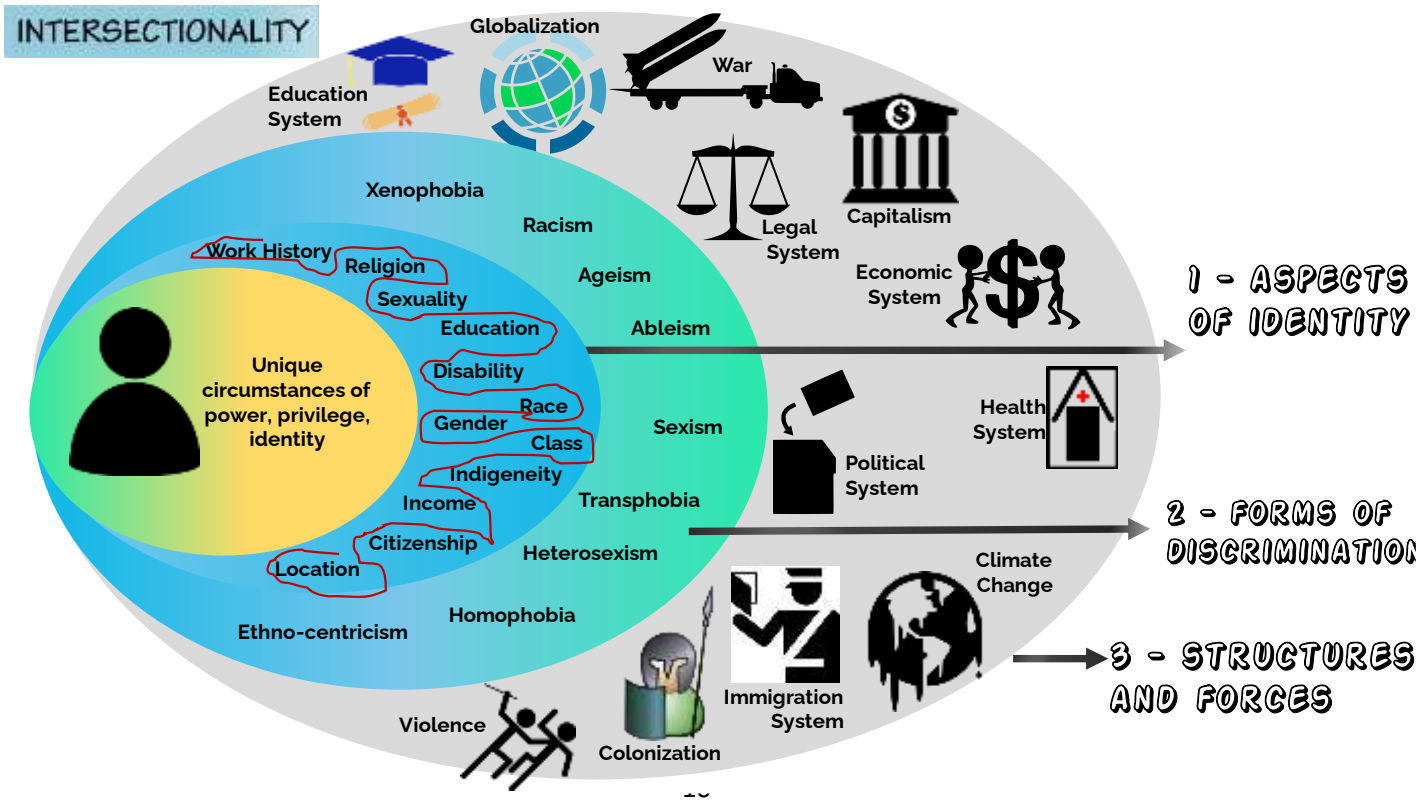
Take a few seconds to look at examples of some such policies and practices that mete out differential treatment to people based on their identities.

So, understanding power dynamics is crucial when applying intersectionality to health. These dynamics dictate who has access to resources, who gets heard, and who remains marginalized. For instance, historical injustices like colonialism have long-lasting effects on Indigenous health, influencing current health disparities, as we will see later in the lecture on Indigenous health.

To use another analogy, intersectionality recognizes that our identities are like a complex road system, with cars in this image representing different identities like race, gender, and class.

When these cars collide at the intersection, it symbolizes the impact of compounded discrimination that individuals face at the intersection or convergence of their social identities. This convergence can create unique experiences of privilege and oppression related to the social power of their identities and produce an increased vulnerability to health issues.

Like the greater impact of a multi-car collision compared to a single vehicle, intersectionality illustrates how the intersection of different identities can amplify and intensify disadvantages, with each 'vehicle' of identity and disadvantage adding force to the collision of oppression; thus, affecting the overall trajectory of one's life and health outcomes.



To sum up the theory of intersectionality - This diagram, while simplistic, effectively maps out the full scope of intersectionality.

We see the purple-yellow circle here, symbolizing the unique blend of power and privilege each individual holds, derived from their social location and the various identities they hold — like race, class, and citizenship.

The blue circle depicts these identities. The intersecting identities are linked to various societal discriminations featured in the green circle, whose effects are amplified and compounded when the person is being discriminated against.

And then, in the grey circle, we see that this complex interplay of discrimination, intensified by the convergence of different identities, is further sustained by prevailing power structures and systems, which shape the social landscape.

The lens of intersectionality encourages us to think critically about the complex ways in which social power, discrimination, and oppression interact and intersect –how they are linked to systems and structures of power that create a myriad of life and health outcomes for different people –and thereby how complex systems issues intersect with the practice of

Medicine

In the context of the practice of medicine, we need to be sensitive to the multiple lived experiences of patients with the same disease. Thus, takinga social history of the patient is very important for disadvantaged populations.

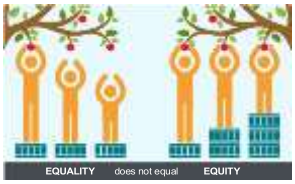
But intersectionality also invites us to be sensitive to our own positions of power and privilege in working with patients. And always be conscious of how we use that power and privilege.

IS EQUAL TREATMENT FAIR?

So that brings us to the final part of this topic and to an important question:

Treating all people equally all the time is fair. True or False?

The answer is ‘False’. If we wish to be responsive to people’s needs as ahealth system, and if people are different and their needs are different, the treatment meted out to them needs to be different. This picture portrays the concepts of equality and equity rather nicely.We see three individuals of three different heights. They are trying to pick fruit from the tree.



We see that when treatment is similar, or in other words, equal, as the image on the left is, only the tallest one can reach the fruit. The other two cannot reach the fruit because they literally suffer a structural disadvantage of height. This is an example of equality or equal treatment for different needs. In the situation of equity in the figure on the right where the three individuals have been given stools of different heights and the shortest gets the tallest structure to step on and the tallest gets the shortest structure, everybody is able to reach the fruit. This is equity. Differential treatment for different need.

SUMMARY

In summary, in this lecture, we started out by looking at the definition and the different characteristics of health, and we saw that one of the greatest challenges of contemporary times is health inequity.

We examined the use of the health indicator, life expectancy at birth to examine health inequity within and between countries.

We also examined the effect of structural factors in creating health inequities and reviewed the case example of HIV.

We then looked at the lens of intersectionality and how it allows us to unravel all the different layers of complexity that are involved in understanding health inequity.

Finally, we focused on the difference between equality and equity, as we saw the importance of health equity in redressing the situation of underprivileged populations.