

Beyond “business as usual”: lessons from FIFA for fair benefit-sharing in global health

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Abstract

While researchers and agencies from low- and middle-income countries often contribute significantly to public health surveillance data, which is crucial for effective pandemic prevention, preparedness, and response activities, they often do not receive adequate compensation for their contributions. Incentivizing data sharing is important for informing public health responses to pathogens with pandemic potential. However, existing data-sharing legal frameworks have limitations. In this context, we looked beyond “business as usual” candidates to explore the applicability of a benefit-sharing model developed and implemented by the *Fédération Internationale de Football Association* (International Federation of Association Football; FIFA) in international association football. This model rewards grassroots contributions and redistributes benefits, promoting a fair balance of interests across diverse economic contexts. We discuss adapting FIFA’s mechanisms, including training compensation and solidarity payments, to create a novel benefit-sharing framework in global health. Given the complexity of global health, we note ways in which components of the FIFA model would need to be adapted for global health. Challenges such as integrating into existing legal frameworks, ensuring broad international buy-in, and accommodating different pandemic periods are examined. While adapting the FIFA model presents challenges, it offers a promising approach to achieving more equitable data sharing and benefit distribution in global health.

Key words: global health; information dissemination; genomics; international health regulations; pandemic preparedness; pandemics; and private sector.

Introduction

Equitable access to public health surveillance data, including biospecimens, can be critical for effective pandemic prevention, preparedness, and response (PPR) activities.¹ Benefit-sharing—a concept in which the gains from public health efforts are fairly distributed among all stakeholders²—can play a vital role in protecting equity in global health.³ Implementing benefit-sharing in global health aims to encourage global cooperation while striking a balance between the risks undertaken by those providing resources (eg, biospecimens) and broader public health benefits.⁴ Benefits can include both monetary and nonmonetary forms of compensation. However, scientists in low- and middle-income countries (LMICs) often provide significant contributions to global public surveillance without equivalent benefits or compensation. In some instances, countries have withheld critical biospecimens when it appeared they would not have access to new health interventions developed with the use of such samples.⁵

The reluctance of scientists, institutions, and countries to share pertinent public health data poses a considerable threat to effective PPR activities. These data are essential for an early

and coordinated response to health threats. Various factors contribute to this reluctance, including political, legal, and ethical considerations.⁶ The International Health Regulations (IHR; 2005), which represent the current legal framework for data sharing, require countries to report certain disease outbreaks and public health events to the World Health Organization (WHO).⁷ However, the IHR have been criticized for their lack of enforcement mechanisms and the absence of incentives for countries, particularly LMICs, to report such outbreaks. Subsequent efforts to promote data sharing, such as the Pandemic Influenza Preparedness (PIP) Framework established in 2011 and the Nagoya Protocol in 2010, have similarly fallen short in providing adequate incentives for LMICs to engage in pandemic-related data-sharing activities.^{8,9} While the challenges of data sharing have been discussed for several years, the COVID-19 pandemic has stimulated renewed focus on this issue, exposing the gross global inequities in terms of relevant genomic and public health surveillance data.

The ongoing discussions around a new pandemic accord and revisions to the IHR present opportunities to differently approach benefit-sharing for PPR activities.¹⁰ To explore an unconventional mechanism to address this issue, we examined

Received: February 19, 2024; Revised: May 6, 2024; Accepted: May 12, 2024

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international football player trading compensation schemes to identify potential lessons on benefit-sharing that could be relevant to PPR activities. In international football, clubs that develop players who are then transferred to other teams internationally historically have not been adequately compensated for their role in the players' training and development. The *Fédération Internationale de Football Association* (International Federation of Association Football; FIFA), as the sport's governing body, has attempted to address this issue by implementing a benefit-sharing model that distributes financial gains across all levels of the sport. In this article, we describe the functions and modalities of the FIFA model, highlighting their potential adaptability for enhancing PPR benefit-sharing in global health.

FIFA benefit-sharing model

FIFA, established in 1904, is the global governing body that oversees association football. It currently comprises 211 national football associations and 6 continental confederations. FIFA plays a central role in promoting the growth of association football worldwide, including the strategic development of the sport at all levels, from grassroots initiatives to professional teams that compete in international competitions. The FIFA benefit-sharing model that we propose exploring for PPR activities is intrinsically linked to its core mandate of growing association football globally and making it accessible for all.¹¹ Central to this model is the redistribution of benefits within football, ensuring that even smaller local football clubs, crucial for player development, are duly rewarded. These clubs receive financial compensation when players they have trained turn professional or are transferred to other teams. There are 2 primary mechanisms through which benefits in association football are distributed: the training compensation and the solidarity mechanisms.

First, the training compensation mechanism ensures that clubs are reimbursed for costs incurred in player development. A fee is paid to the training clubs when a player signs their first professional contract and on each subsequent transfer until the end of the season of their 23rd birthday. Such payments must be paid within 1 month of the player signing a professional contract. The value attributed to the level of training is determined by the country and the caliber of the club and is multiplied by the number of years spent training while the player is between the ages of 12 and 21 years. This mechanism is designed to acknowledge the essential role of training clubs in cultivating football talent and offers a tangible incentive for continuing this critical work.

Second, in the solidarity mechanism, when a player under contract is transferred between clubs within different FIFA jurisdictions, a portion of the transfer fee up to 5% is allocated as a solidarity payment distributed to all clubs involved in the player's training and education between 12 and 23 years. Unlike training compensation, which ceases when a player turns 23 years, solidarity payments continue throughout the player's professional career, and are applied each time the player is transferred while under contract. This system ensures that clubs that contribute to a player's development continue to receive benefits throughout the player's career, incentivizing ongoing participation in a player's development and education.

Figure 1 includes the 3 primary steps of the FIFA benefit-sharing model. In the first, FIFA ensures that all national

association systems that track players are fully compatible with the global FIFA tracking system. In addition, when a football player turns 12 years old, they are electronically registered in the national association's electronic registration system. Next, once a player registers as a professional or is transferred, the Transfer Matching System (TMS) will automatically query the national association's electronic registration system. The player training and education data are used to generate an Electronic Player Passport (EPP). The EPP enables an accurate calculation of any training compensation or solidarity payments that are due based on the contract the player has signed. In the final step, FIFA verifies the information on the EPP and generates an allocation statement. The allocation statement is sent to the FIFA Clearing House (FCH) for processing payments. The FCH undertakes a rigorous compliance assessment to ensure accuracy and fairness. Relevant payments are requested from the acquiring club and, following receipt, the FCH distributes the due amounts to relevant clubs.

The fidelity of the FIFA benefit-sharing system hinges on several critical elements. The FCH, established in 2022, plays a particularly integral role in the FIFA benefit-sharing model. The FCH is a separate legal entity that has been established to settle amounts related to the training compensation and the solidarity mechanisms. Its management and supervisory boards comprise primarily independent members. Although FIFA's benefit-sharing mechanisms existed before 2022, there were concerns about the payment of training rewards, with a growing gap between the payments due and those that were paid out by acquiring teams. In response, FIFA established the FCH to centralize the training rewards process, automate the processing of payments, and promote financial transparency. The FCH undertakes all litigation processes with the relevant actors, with a small team and integrated databases, drawing on the enforcement and sanction power of FIFA. According to FIFA, the FCH, which is still being scaled, is anticipated to pay out \$400 million in training rewards annually, comprising 14 000 transactions.¹²

Stakeholders in the FIFA model

Figure 1 highlights components of the FIFA model that could be of relevance to benefit-sharing for PPR activities in global health. Similar to the Regulations on the Status and Transfer of Players, any benefit-sharing model to support equitable PPR responses will require the terms to be integrated with existing (eg, IHR, PIP, Nagoya Protocol) or new international legal frameworks (eg, Pandemic Accord) regarding the rights and obligations of different parties in sharing access to pandemic-relevant data. One or more multilateral health agencies responsible for setting normative standards in global health should be involved in developing and mediating the terms of such a framework. Bioethicists have identified a series of questions for guiding the boundaries of benefit-sharing models: "Who owes what to whom and why?"¹³ We explore potential answers to these questions here as they relate to incorporating the FIFA model into such frameworks.

In considering the "who owes?" question, various stakeholders would need to be considered. International organizations like the WHO and the United Nations, which set norms and provide guidance, benefit from comprehensive data sharing that enables them to fulfill their mandates more effectively, including issuing Public Health Emergencies of

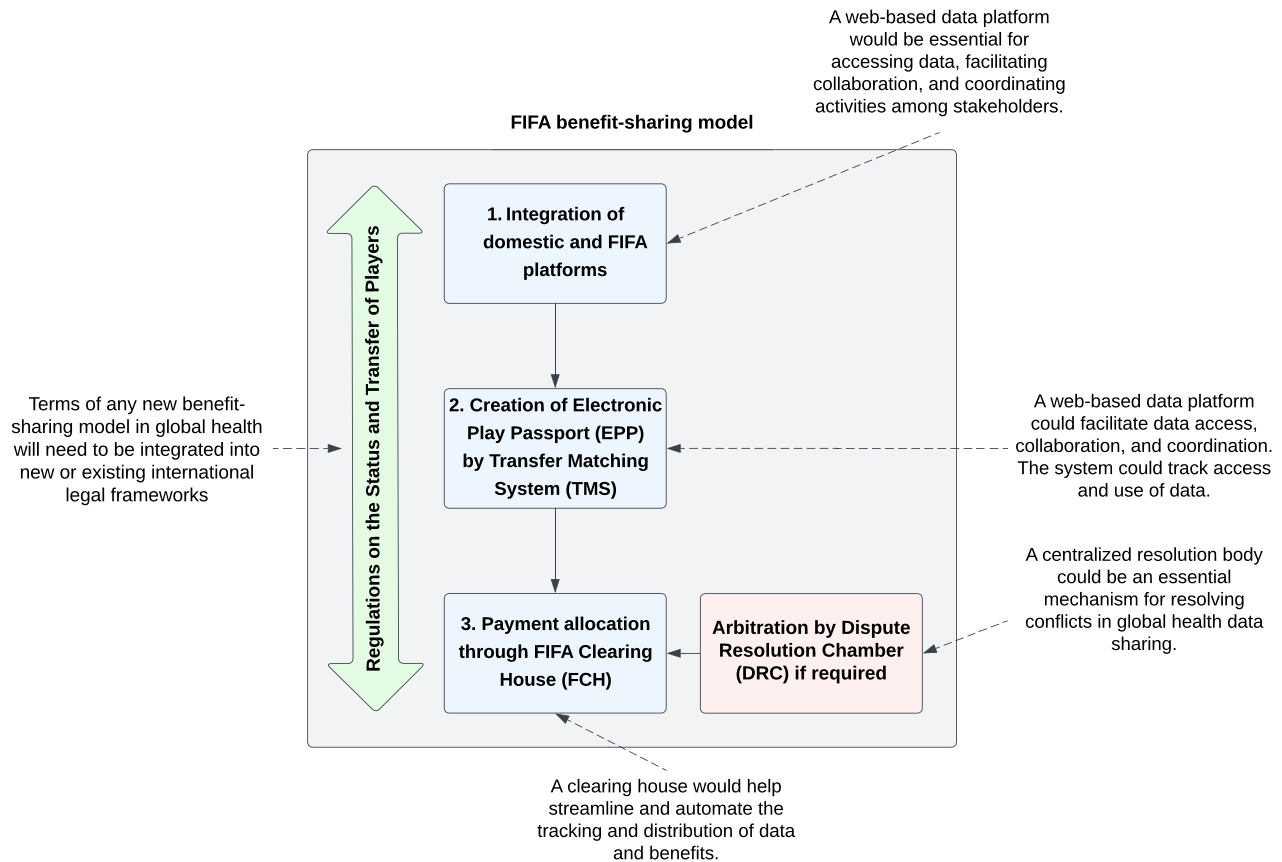


Figure 1. Overview of the FIFA benefit-sharing model and its potential applicability to PPR activities in global health. The blue boxes indicate the key steps in the FIFA model for benefit-sharing; the pink box indicates the entity to resolve conflicts when they arise, and the green arrow indicates the legal framework that applies throughout the entirety of the process. The text connected to each of these components by dotted lines represents the applicability of each component to PPR activities in global health. Abbreviations: FIFA, *Fédération Internationale de Football Association* (International Federation of Association Football); PPR, prevention, preparedness, and response.

International Concern (PHEIC) declarations. Governments benefit by maintaining public health security through access to accurate global data. Research institutions and private-sector entities, such as vaccine and therapeutics developers, benefit from early access to data, enabling the development and marketing of relevant interventions. These stakeholders experience benefits akin to professional football clubs in FIFA’s model, which benefit from the development contributions of other clubs.

Considering “what is owed?,” stakeholders sharing surveillance data should be owed access to similar data to enhance their public health initiatives. They should also receive protections against retaliatory actions, such as travel bans, to foster a trusting environment for ongoing data sharing. Financial gains should be equitably distributed to support the institutions and systems that provide data. Assured access to new tools developed from shared data ensures that all contributors, particularly from resource-limited settings, benefit from scientific advancements. This compensation mirrors FIFA’s model, where clubs receive both financial rewards and equitable treatment within the football community.

For the question of “to whom?,” the primary beneficiaries should be governments and health systems providing crucial PPR-relevant data, especially in LMICs. These entities gather and report essential health data and biospecimens and must receive benefits such as financial compensation and access to developed tools to recognize their contributions and promote

continued cooperation in global health surveillance. This mirrors the FIFA model, where clubs developing talent receive rewards benefiting the sport globally.

Components of the FIFA model in global health

Establishing a centralized clearing house, similar to the FCH, could be instrumental for facilitating sharing of pandemic-relevant specimens and data in global health. Such a clearing house would streamline and automate the tracking and distribution of benefits. For pandemic PPR activities, a web-based data platform would be essential for accessing data, facilitating collaboration, and coordinating activities among stakeholders. Again, some data-sharing platforms already exist, including the PIP Framework and the Global Initiative on Sharing All Influenza Data (GISAID). The latter is not without its own challenges as well.¹⁴ Leveraging existing infrastructure, procedures, and resources for the establishment of a centralized clearing house could be advantageous in deploying a new approach.

A web-based data platform, like FIFA’s TMS, for accessing data, collaborating on analyses, and coordinating various activities among stakeholders could be utilized. The system could also track data providers and users, ensuring all contributions and accesses are accurately recorded and attributed, thus promoting transparency and accountability in data

sharing. As with the FIFA system, the TMS should be closely linked with the centralized clearing house.

Unlike football players, data do not necessarily need to be physically transferred to realize their value. As a result, access can be provided to multiple entities to generate benefits. For such a platform, a shift from data sharing to data access could be considered. One example of decentralized access is swarm learning,¹⁵ an artificial intelligence-enabled decentralized approach to data that allows multiple data owners to collaborate on model development and share insights while retaining the data locally. Akin to FIFA's EPP, such a system could track access and use of pandemic-relevant data.

Disputes are almost certainly bound to arise in any such benefit-sharing model. A centralized resolution body, modeled after FIFA's Dispute Resolution Chamber, could serve as a mechanism for resolving conflicts in global health data sharing. It would address disputes related to data access, benefits generated from such access, data ownership, and research collaborations. The resolution body would provide an impartial platform for arbitration, ensuring fair and equitable resolution of conflicts in the intricate landscape of global health data sharing.

Discussion

The application of a FIFA-inspired model for benefit-sharing in global health represents a novel approach to address longstanding challenges with sharing surveillance data for PPR efforts. Many of the challenges in data sharing have been particularly visible during the COVID-19 pandemic. For example, when researchers from South Africa and Botswana shared essential genomic surveillance data during the emergence of the Omicron variant of SARS-CoV-2,^{16,17} rather than receiving reward or recognition for their scientific contributions, travel restrictions were imposed on both countries.¹⁸ The FIFA benefit-sharing model offers several possible approaches and elements that could be applied or adopted to prevent such occurrences in global health.

Of course, the FIFA model cannot be directly applied without significant modifications. First, the global nature of pandemics necessitates broad international buy-in for any effective solution to benefit-sharing. FIFA commands hegemonic control over international football. There is no parallel in global health. As seen in ongoing discussions about the new pandemic accord, securing agreement from all countries on a single approach to any issue can be challenging. Also, the model must be adaptable enough to be accepted by a range of countries with differing needs, capacities, and perspectives.

Another required adaptation would be needed to take into account the dynamic nature of a pandemic over time. Different mechanisms might be needed for pandemic periods, which might include pre-pandemic, pandemic, post-pandemic, and non-pandemic phases. During a pandemic, there might be a greater emphasis on rapidly distributing benefits to incentivize swift data sharing and immediate pandemic response (ie, benefits might need to be shared more broadly to ensure distributive justice). Sharing non-data resources (eg, laboratories, surveillance systems, data storage, analytic requirements) could also generate benefits that could be shared during pandemic periods. In such cases, additional provisions would need to be made in benefit-sharing agreements. Non-pandemic periods might allow for a more gradual accumulation and

distribution of benefits, focusing on strengthening global health systems and research capacity for future threats.

Another issue with application of this model is that there are different value trajectories for football players vs pandemic data and specimens. The value of a football player is likely to increase over time, peak during their prime, and then decline thereafter. In contrast, public health data may not provide intellectual property value for a considerable time after access has been granted; sometimes not at all. While the value of data is dynamic and most visible when the result is a new tool, there are instances when benefits are less tangible, including when data are used for early pandemic warnings. Any new benefit-sharing model must consider these differential value trajectories and calibrate benefits accordingly to ensure commensurate recognition of contributions.

In football, the beneficiaries of training compensation and solidarity mechanisms are very clearly defined as the training clubs and the benefits are calculated according to revenue generated by the player's contributions to the team. We believe governments and health systems that provide access to benefits would be the most likely beneficiaries in a benefit-sharing program. However, other stakeholders could include individuals or independent research agencies (eg, academic laboratories or research hospitals).

There are challenges with defining benefits as well. For example, less tangible benefits could include the morbidity and mortality averted by mitigation efforts. As such, applying this model would require an articulation of how intangible benefits are incorporated into a benefit-sharing model. It would also require clarifying what constitutes relevant data,¹⁹ and the establishment of a priori agreements on benefit distribution.

While FIFA has faced substantial criticisms regarding transparency, integrity, and respect for human rights,^{20,21} the benefit-sharing model has been widely acknowledged by the European Union and the Council of Europe for ensuring fairness and equity within association football¹² for increasing transparency and accountability in association football. However, it is not without its criticisms. First, despite its intention to promote equity, the FIFA model has been criticized for perpetuating disparities in wealth distribution. Wealthier clubs often have more resources to invest in player development, potentially widening the gap between rich and poor clubs. This aspect could apply to global health, where more affluent countries or organizations might disproportionately benefit. In addition, FIFA has sometimes struggled with the enforcement of its regulations, particularly in ensuring compliance across different national associations.

Conclusion

The FIFA model highlights a potential pathway toward more equitable benefit-sharing in PPR activities. While not directly transferrable, the model provides valuable insights into how global health could create a fairer and more effective system for benefit distribution. Establishing an online platform for sharing and monitoring genomic data that integrates with existing systems, in particular, is one such example.

A centralized clearing house managed by a well-established organization with a strong global presence and credibility, capable of earning the trust of all stakeholders involved, could also be a potential way forward for processing and distributing benefits. Of course, for this or any model to succeed, it must have a well-defined scope and clear objectives, with

appropriate stakeholder participation in its design and implementation. It should also adhere to key principles, such as integration into existing platforms, decentralized data access, and adaptability to different pandemic periods; have broad international buy-in; and have clear definitions of both the benefits and beneficiaries involved.

In conclusion, while applying the FIFA model to the intricacies of global health may seem far-fetched, it could mark a significant step forward in addressing the disparities and inefficiencies in the distribution of benefits from shared public health data.

Acknowledgments

The authors thank representatives of the advisory group on fair benefit-sharing organized by the Paris Peace Forum. In particular, the authors thank Anthony So from the Johns Hopkins Bloomberg School of Public Health and César Chaparro Yedro from the FIFA Clearing House for their helpful insights and feedback on this concept.

Contribution statement

All author conceptualized the topic; B.W. and N.S. conducted the background research and prepared the initial draft; N.S., G.B., and S.G. reviewed and edited the draft; all authors approved the final version of the manuscript for submission.

Funding

Paris Peace Forum.

Conflicts of interest

Please see ICMJE form(s) for author conflicts of interest. These have been provided as supplementary materials.

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