



Pathways to Universal Health Coverage: A Qualitative Comparative Analysis of Effective Development Cooperation Principles in Fragile and Conflict-Affected States



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Abstract

Background: Universal health coverage (UHC) is a central target of the Sustainable Development Goals (SDGs), yet progress remains limited, particularly in fragile and conflict-affected states (FCAS). Despite commitments to leave no one behind, FCAS face complex circumstances that require better collaboration. Evidence on whether and how adherence to effective development cooperation (EDC) principles influences development outcomes remains scarce. This study examined which EDC principles have affected UHC attainment in FCAS.

Methods: Crisp-set qualitative comparative analysis (QCA) was applied to examine six EDC indicators as explanatory variables (conditions) which are EDC indicators: alignment with plans and budget priorities, partner coordination, national coordination mechanisms, use of national monitoring and evaluation (M&E) system, and provision of joint technical assistance (TA). The outcome was attainment of UHC service coverage index of at least 40. QCA assessed necessary conditions (for outcome to happen they must be present) and sufficient conditions (whenever they are present the outcome happens). We examined 17 FCAS; all were low and low. Seventeen low-income and lower-middle-income FCAS were included, using publicly available 2021 data on conditions and outcome.

Results: While none of the six conditions were found to be necessary for attaining UHC within our data, four appeared sufficient. The final solution indicated that either strong alignment with national plans or joint TA provided a pathway to UHC. The model had moderate coverage of 46%, explaining fewer than half of cases attaining the UHC threshold. Findings should be interpreted considering the small sample size, reliance on self-reported EDC ratings, and cross-sectional data rather than assessment over time.

Conclusion: Better alignment among health partners is needed to minimise loss of already scarce and crucial resources in FCAS. Context-tailored TA may support attainment and sustainability of cooperation outcomes. Enhancement of frameworks and measures for tracking EDC and UHC with more frequent monitoring is needed.

Keywords: Effective Development Cooperation, Universal Health Coverage, Sustainable Development Goals, Fragile and Conflict-Affected States, Qualitative Comparative Analysis

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Background

Effective development cooperation (EDC) is a widely used term that has replaced the older phrase “aid effectiveness.” At its core, however, EDC still entails the traditional definition of aid as a catalyser supporting recipient countries towards achieving their development targets.¹ EDC requires key principles as conditions for considering the development cooperation efforts to be effective in reaching the cooperation targets. These principles (ie, ownership of priorities by recipients, partners’ alignment, harmonisation, management for results, and mutual accountability) were first declared within the Paris Declaration on Aid Effectiveness in 2005.² Following the problematisation of the paternalistic nature of aid, where donors dictate priorities and actions,³ EDC advocated moving towards partnership relations by ensuring that recipient countries held ownership of priorities and

operational frameworks. Hence, donors and international partners were required to align their support with the recipient countries’ priorities and national systems, while supporting the building of national capacities. Harmonisation of efforts among partners in a coordinated manner was also required to eliminate duplication of efforts and losses. The cooperative work is further expected to occur within a system that ensures management for results and mutual accountability to safeguard effectiveness.^{3,4}

The millennium starting in 2000 brought with it a greater emphasis on globally agreed development targets in the form of the eight Millennium Development Goals (MDGs), which focused on specific threats facing humanity including poverty, hunger and communicable diseases such as HIV/AIDS and malaria. In 2015, the 17 Sustainable Development Goals (SDGs) were launched; which places greater emphasis

Key Messages

Implications for policy makers

- Pathways towards universal health coverage (UHC) are unique and multiple, but it is imperative to enhance partners alignment to national priorities and ensure jointly planned contextualised technical assistance (TA) in fragile and conflict-affected states (FCAS). Governments must maintain stewardship and clearly articulate priorities to guide partners' support. Other health partners should improve alignment to national plans and coordinate TA to avoid fragmentation.
- Better alignment in health partnership platforms is needed, both globally and locally. Global health partners must take the initiative on this, ensuring learning from each other and from previous efforts.
- It is critical for UHC2030 and the Global Action Plan for Healthy Lives and Well-being (SDG3 GAP) to revise and improve the framework and indicators for tracking effective development cooperation (EDC) and UHC.
- Frequent and broader monitoring rounds for UHC and EDC would enable better understanding and planning. The leading health partnership platforms, namely the UHC2030 and the SDG3 GAP secretariat, should undertake this.

Implications for the public

Accessing basic healthcare remains a major challenge in many parts of the world affected by conflict or state fragility. This study found that when international health partners work closely with national governments by aligning their efforts towards real local health priorities or offering tailored technical support, then health systems are more likely to achieve their targets. These findings highlight the importance of smarter collaboration. Instead of wasting resources by duplicating effort, partners can make a bigger impact by listening to local needs and working together. For people living in fragile settings, this means a better chance of receiving essential health services like vaccinations, maternal care, and treatment for common illnesses. Ultimately, improving how health aid is delivered within a better national health system can ensure that no one is left behind, even in the most difficult circumstances.

on people, prosperity, the planet, peace, and partnership.⁵ EDC was embedded as the last goal within both the concluded MDGs⁶ and the current SDGs, both as goal on its own and as a mean to achieve global targets.⁵

Health Within the Sustainable Development Goals and Effective Development Cooperation

The era of SDGs has emphasised health within a central goal of ensuring healthy lives and well-being for everybody at all ages (SDG 3). There are also many other health-related targets in the rest of the 2030 Agenda for Sustainable Development.⁵ While previous health targets from the MDGs are still maintained within the SDGs (eg, combatting HIV/AIDS and malaria, reducing child mortality, and improving maternal health), universal health coverage (UHC) is the most prominent health target in the SDGs, with major global commitments made towards it by global leaders during the 2019 United Nations High-Level Meeting on UHC.^{7,8}

The health sector globally embedded EDC principles with the hope that they could facilitate cooperation in a more coordinated and effective way, given the proliferation of health partners, towards achieving the targets of SDG3. This is seen within the transformation of the International Health Partnership (IHP+), the main health partnership forum during the MDGs period, to the UHC2030 partnership in 2016, which maintains EDC principles at its core with a UHC focus.⁸ In 2019, 13 leading global partners signed the Global Action Plan for healthy lives and well-being (SDG3 GAP) to advance efforts towards the overall SDG3 targets.⁹ The signatory partners were health, development and humanitarian global organisations, including the World Health Organization (WHO), World Bank Group, United Nations Children's Fund, United Nations Population Fund, United Nations Development Programme, Joint United Nations Programme on HIV/AIDS, Unitaid, UN Women, World Food Program, International Labour Organization, the Vaccines Alliance, the Global Fund, and the Global Financing

Facility. The SDG3 GAP partnership also developed a theory of change¹⁰ with a linked monitoring framework¹¹ to make it possible to track progress on the signatory partners' EDC commitments.

Fragile and Conflict-Affected States: Health and Effective Development Cooperation

The last decade has witnessed an increase in the countries that are classified as fragile and conflict-affected states (FCAS) globally.¹² The common features of FCAS include the loss of physical control over the state territory or a monopoly on the legitimate use of force, the erosion of legitimate authority, and an inability to provide reasonable public services.¹³ More than 1 billion people live within FCAS, and most of these people are below the poverty line within low-income countries (LICs) and low- and middle-income countries (LMICs), with devastating displacement figures.¹⁴ FCAS suffer from incrementally increasing needs that exceed the weak capacities of state services. Half of global child deaths occur in these contexts, mostly due to livelihood and preventive services disruption.^{11,13} The situation in FCAS is even more complicated by aid dependence, especially with the prominent presence of short-term humanitarian interventions, which have a low investment in sustainability and externally dictated priorities and intervention modalities.¹⁴

The promise of "leaving no one behind" within the SDGs, however, emphasises the most difficult settings and most vulnerable population. The high presence and dependence on global partners within FCAS calls for a close follow-up of EDC commitments to ensure FCAS receive the support most aligned to their priorities in a well-coordinated and effective way. Despite the many health partnerships and announced commitments to move towards SDG3 targets, especially UHC, FCAS (and the world) are not on track to achieve progress on these targets. Indicators for UHC are a matter of global concern, with apparent variations and major disparities between and within countries and regions.¹⁵

However, UHC progress and its determining factors among FCAS are extremely under-researched.¹² The extensive literature on EDC has also overlooked its relationship to concrete essential service sector outcomes like UHC, with no recent empirical evidence from the health sector, to our knowledge. Even beyond health, there is scarcity of research addressing whether or how improved adherence to EDC principles may affect development outcomes.¹⁶ This gap is even more pronounced in FCAS, where the assumptions underpinning global frameworks such as UHC2030 and the SDG3 GAP may not hold due to unique governance, capacity and coordination constraints.

In addition to contributing to the development literature, this study also speaks to the health systems field, particularly the body of work centred on the conceptualisation and measurement of UHC. The UHC literature emphasises that progress on UHC depends on coherent system-level functions, including robust health intelligence, financing, and coordination of service delivery, which enable countries to expand access to essential services equitably.^{17,18} This literature highlights the importance of reducing fragmentation, strengthening stewardship, and ensuring alignment of external support with national priorities. This provides an analytical basis for examining EDC principles as behaviours that may influence the very system capabilities required for UHC advancement, especially in FCAS.

This study examined if and how EDC principles have affected progress towards UHC in FCAS. It thus contributes to a better understanding of the role of EDC in advancing development, especially in FCAS and for health sector targets. The study addresses an empirical gap by testing the components of the SDG3 GAP theory of change within FCAS, thereby examining whether, and under which configurations, EDC behaviours are associated with measurable UHC progress.

Methods

We applied crisp-set qualitative comparative analysis (QCA)^{19–22} to examine the relationship between EDC principles as the main conditions of interest and UHC as the outcome. The choice of QCA stems from a belief that the causal pathway underlying the theorised relationship is complex. QCA uses set theories to identify the patterns and possible pathways to achieve an outcome, which can be multiple. Hence QCA encompasses the notion of equifinality, which means there could be more than one pathway to the outcomes.

QCA was chosen not only for its suitability to small sample size comparative studies, but also because it operationalises complex causality, an essential feature of FCAS, where partners' behaviours, national capacity, and political instability interact in non-linear ways. This methodological choice allowed us to interrogate the SDG3 GAP theory of change by identifying combinations of EDC principles that are necessary and/or sufficient for UHC attainment. Unlike regular qualitative approaches, QCA allows systematic cross-case comparison and the identification of causal configurations. The conventional statistical approaches were also not suitable due to the small sample size. QCA also works

well with the categorical nature of the available data. Thus, QCA offered an analytically coherent middle path between purely qualitative and purely quantitative methods, aligning with the study objective, the theoretical underpinnings, and the structure of the existing data.

Cases

UHC is subject to complex interactions of political, economic and social contextual factors. We therefore used cases (countries) that were as homogeneous as possible: aid recipient, fragile states, all within comparable economic status (LICs and LMICs). The initial list of cases was obtained from the SDG3 GAP monitoring 2021²³ and included 42 aid recipient countries and territorial states. The list was further filtered to include only countries that were classified as fragile states²⁴ and as either LICs or LMICs by the World Bank²⁵ in 2021. Finally, we only included cases for which the outcome variable was available, yielding a total of 17 cases.

Framework

We examined the theory of change proposed by the SDG3 GAP. **Figure** depicts an adaptation of the simplified “spine” of the SDG3 GAP theory of change.¹¹

Within this framework, it is assumed that **if** the SDG3 GAP signatory agencies work in a way that prioritises EDC, and **hence** they take *joint actions*, **then** the beneficiary countries will receive support that is *aligned* with their priorities in a *coordinated* and more *effective* way, all of which will **lead to** progress towards SDG3 targets. This is based on the condition that risks and barriers are overcome, and that the assumptions hold true. The SDG3 GAP has outlined the details of their theory of change¹⁰ including the inputs, change pathway, expected results, risks, barriers, and assumptions.

Variables and Data Sources

The explanatory variables (conditions) consisted of six EDC principles reported to feed into the SDG3 GAP monitoring framework¹¹; these were measured based on the national government ratings of partner behaviours. The outcome variable was attainment of UHC, using the WHO–World Bank global monitoring reports on the UHC service coverage index.¹⁵ The main conditions examined were the status of the EDC principles in enabling or preventing the aid recipient countries in making progress towards the SDG3 target of UHC. We used secondary, cross-sectional country-level data reporting on the year 2021. We included all six conditions of EDC that the SDG3 GAP monitoring cycles reported on for the countries.²³ These conditions are listed below with the used abbreviation in bold.

1. The partners **align** with the national plans.
2. **Partners coordinate** their support with each other.
3. Partners use a unified **national coordination** mechanism (no parallel mechanisms).
4. Partners' financial support is in line with national **budget** priorities.
5. Partners use the national monitoring and evaluation (**national M&E**) system and report within it.
6. Partners have a joint technical assistance (**joint TA**) plan.

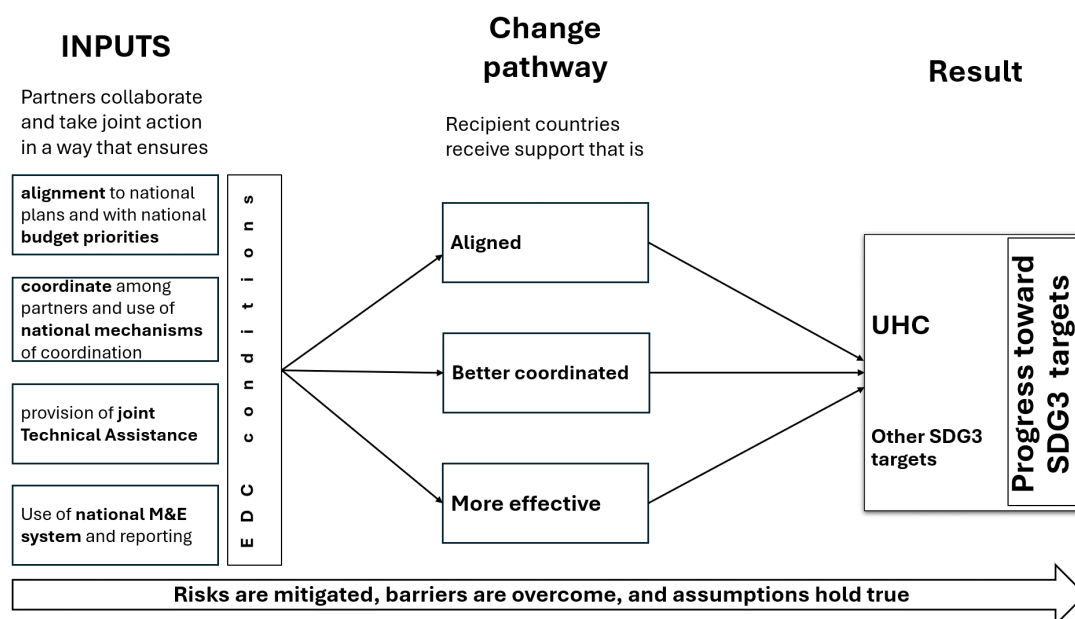


Figure. Simplified Spine of the SDG3 GAP Theory of Change (adapted from SDG3 GAP¹¹). Abbreviations: UHC, universal health coverage; EDC, effective development cooperation; SDG, Sustainable Development Goal; M&E, monitoring and evaluation; SDG3 GAP, Global Action Plan for Healthy Lives and Well-being.

Although the global EDC agenda is framed around five high-level principles (ownership, alignment, harmonisation, managing for results, and mutual accountability), the SDG3 GAP monitoring framework operationalises these principles into the six measurable indicators of partners behaviours presented above. These six conditions therefore represent the practical, country-level expressions of the broader EDC principles and constitute the set of variables systematically tracked within the SDG3 GAP process. Data for these were retrieved from the SDG3 GAP secretariat. The secretariat collected information from SDG3 GAP focal points at national governments using a questionnaire reporting on the performance of GAP partners on these EDC principles as rates on a scale from 1 to 5 (strongly disagree to strongly agree).

For the outcome, we chose the UHC service coverage index due to its centrality as the main health target within the SDGs. The data for this index were retrieved from the UHC global monitoring published by World Bank and WHO.¹⁵ Data were available as percentages, with the index representing an average coverage of defined essential services including reproductive, maternal, newborn, and child health services, non-communicable diseases, infectious diseases, service capacity, and access.¹⁵ We used the index data for the year 2021, which was the most recent data available. The full data set is presented in [Supplementary file 1](#).

For the supplementary analysis, we further examined the under-five mortality rate (U5MR), which was selected due to its long-established relevance as a classical comparable health system performance outcome indicator, and because it was the only other main health outcome indicator with data availability in the recent timeline across all included FCAS. This ensures the study's coherence with modest sensitivity analysis. Details on this supplementary analysis are provided in [Supplementary file 2](#).

Data Analysis

The analysis was conducted following the QCA methodology, which uses the strengths of Boolean algebra and inferential statistical reasoning to investigate the necessary and sufficient conditions. Necessary conditions must be present for the outcome to happen; hence all cases exhibiting the outcome are members of the condition presence set, the outcome cannot occur in that condition absence. Whenever sufficient conditions are present, meanwhile, the outcome happens. QCA further gives solutions that outline causal pathways as well as relevant measures of fitness. To achieve this, we applied the following steps.

Calibration of the Conditions and the Outcome

Calibration is a first central step in QCA, where the data are transformed from a raw numerical format to membership scores based on a threshold chosen based on theory. We applied a crisp-set calibration, which means that we dichotomised the variables (both conditions and outcome) into in and out (ie, success or failure in meeting the threshold) based on theoretical criteria.

The explanatory EDC conditions all followed a 5-point Likert scale, ranging from strongly disagree to strongly agree. Following the consideration of acquiescence bias,²⁶ where self-rating respondents tend to agree with statements as a default, especially when unsure, thus leading to more frequent selection of “agree” rather than “strongly agree.” Only “strongly agree” was considered as the presence of the condition.

The report tracking UHC progress with data for the year 2021¹⁵ categorised the UHC index data into five quantiles: very high (>80), high (60–79), medium (40–59), low (39–20), and very low (<20). For our study a threshold value of 40 or above was selected for the outcome presence based on this rationalisation. [Supplementary file 1](#) shows the full data set before calibration, while [Table 1](#) shows the calibrated data.

Analysing Necessity and Sufficiency

Once the data were calibrated, we conducted an initial necessity and sufficiency analysis to assess the pathways to the outcome. We applied two parameters of fit: *consistency* (proportion of outcome set that is included in/part of the condition(s) (set) of interest) and *coverage* (the empirical relevance of the relationship, ie, how many cases are explained by this relationship) to assess the goodness and strength of the set relations. We applied a consistency threshold for necessity of 1, and 0.75 for the sufficiency, as advised by Rihoux and Ragin.²⁰ The analysis of necessity and sufficiency was conducted for both the presence and absence of the outcome and the presence and lack of the conditions. To identify necessary or sufficient conditions, we tested each of the six EDC principles individually against the UHC outcome using necessity consistency metrics, followed by sufficiency consistency metrics. Assessing multiple conditions in parallel allows systematic evaluation of whether any single principle represents an indispensable prerequisite for UHC attainment or whether the outcome can be achieved through alternative pathways.

We then created the truth tables, which list all the possible combinations of the conditions and examine within which combinations the cases fall. The truth tables also show combinations of empty cases, called logical remainders. To simplify these tables, we applied a minimisation function using the parsimonious solution. Minimisation uses Boolean algebra to reduce truth tables to a simpler set of causal pathways that explain the outcome. The parsimonious solution represents the most simplified set of causal pathways explaining the outcome, and it is obtained by reducing the truth table configurations to the core conditions or conditions set(s) that are necessary and/or sufficient to achieve the intended outcome. The parsimonious solution does this by

eliminating logical remainders with contradictory simplifying assumption (ie, those with configurations of conditions sufficient for the outcome and non-outcome simultaneously) and further logical remainders that contradict the claims of necessity (ie, without the claimed necessary condition when a relation of necessity is claimed). The parsimonious solution then shows possible model(s) of the pathway to the outcome(s) with measures of consistency and coverage, as well as the covered cases within each pathway model.

We also produced further coverage concepts in the format of unique and raw coverage at this stage. Raw coverage refers to how much of the outcome is explained by the set of conditions. It is calculated by dividing the number of outcome cases that satisfy a specific condition (or combination of conditions) by the total number of outcome cases. Unique coverage refers to how much of the outcome explanation can be attributed only to that set or condition and not by any other. It is calculated by subtracting any overlap in explained cases between pathways. We conducted the analysis using the packages QCA and SetMethods in R software.^{21,22}

Results

Table 1 shows the cases, conditions, and the outcome after calibration, with 1 indicating the presence of the condition and 0 for its absence.

Within our data set, 11 countries (65%) had a UHC index of 40 or above, thus indicating presence of the outcome. These were Afghanistan, Burundi, Comoros, Democratic Republic of Congo (DRC), Eritrea, Haiti, Mali, Mozambique, Syrian Arab Republic, Yemen, and Zimbabwe. Ten countries had a medium level UHC index (40–59) and only the Syrian Arab Republic had a high UHC index (between 60–79) by 2021. Table 2 shows the results of the necessity and sufficiency analysis for the UHC index.

Table 1. List of Selected Countries and the Calibrated Data

Country (Case)	Align	Partners Coordinate	National Coordination	Budget	National M&E	Joint TA	UHC
1. Afghanistan	0	0	0	0	0	0	1
2. Burundi	0	0	0	0	0	0	1
3. Comoros	1	0	0	0	0	0	1
4. DRC	1	1	0	1	0	0	1
5. Eritrea	1	1	1	1	1	0	1
6. Haiti	0	0	0	0	0	0	1
7. Mali	0	0	1	0	1	1	1
8. Mozambique	0	0	0	0	0	0	1
9. Syrian Arab Republic	0	0	0	0	0	0	1
10. Yemen	0	0	0	0	0	0	1
11. Zimbabwe	0	0	0	0	0	1	1
12. Chad	0	0	0	0	0	0	0
13. Ethiopia	0	0	1	0	1	0	0
14. Niger	0	0	0	0	0	0	0
15. Nigeria	0	0	0	0	0	0	0
16. Somalia	0	0	0	0	0	0	0
17. South Sudan	0	0	0	0	0	0	0

Abbreviations: DRC, Democratic Republic of Congo; TA, technical assistance; UHC, universal health coverage; M&E, monitoring and evaluation.

Table 2. Analysis of Necessity and Sufficiency

Condition	Necessity Analysis		Sufficiency Analysis	
	Consistency	Coverage	Consistency	Coverage
Align	0.273	1.000	1.000	0.273
Partners coordinate	0.182	1.000	1.000	0.182
National coordination	0.182	0.667	0.667	0.182
Budget	0.182	1.000	1.000	0.182
National M&E	0.182	0.667	0.667	0.182
Joint TA	0.182	1.000	1.000	0.182

Abbreviations: M&E, monitoring and evaluation; TA, technical assistance.

The results of the necessity analysis show that none of the six EDC conditions met the necessity consistency threshold of 1, which indicates that attaining a UHC index value of 40 or above occurred both in the presence and absence of each of these conditions. The sufficiency analysis results, on the other hand, indicate four conditions consistently coincided with achieving UHC 40 or above: alignment with national priorities, partners coordination, financial support aligned with national budget, and having a joint TA plan to mainstream partners' technical support. These conditions were sufficient (sufficiency consistency = 1, above set threshold) to achieve the set UHC threshold, which means that whenever any of these conditions was present, a UHC index value of 40 or above was also present.

The coverage for this sufficiency analysis was low, however; 27% of the cases that achieved the outcome can be explained by the presence of alignment, and 18% by the presence of each of the conditions of partners coordinate, budget, and joint TA respectively. This reflects that there were few countries with the conditions relative to the totality of countries with UHC present. Similar results indicating these same four sufficient conditions were found within the supplementary analysis with the relative change of U5MR as the outcome with an even higher coverage within these sufficient conditions (details in [Supplementary file 2](#)).

We also conducted an analysis for the lack of the outcome (UHC index <40). It showed four necessary conditions in the negative form (ie, absence of these conditions). Those were the exact sufficient conditions in the analysis of UHC presence but in the negated form (alignment, partners coordinate, budget, and joint TA). The proportion of the set of these negated necessary conditions as part of the negative outcome (coverage) was low (40%). No single condition was sufficient alone to attain the negative outcome. Detailed results are shown in [Supplementary file 1](#). The parsimonious solution of the resulting truth table is shown in [Table 3](#); the full truth table is included in [Supplementary file 1](#).

The solution pathway consisted of two conditions with OR (+) relation: the existence of good alignment or joint TA was sufficient to achieve the positive outcome of UHC. The overall model covered 45% of the cases with UHC over 40 (total raw coverage). Alignment alone explained 27% of the cases with UHC over 40 (unique coverage of 27%), including three countries within the set: Comoros, DRC, and Eritrea. Joint TA explained 18% (unique coverage) of cases with UHC index above 40 (Mali and Zimbabwe).

In the supplementary analysis, the parsimonious solution towards U5MR relative changes was similar to the model presented above for UHC, and the cases within the model pathway for relative change in U5MR were identical to those within the UHC model even with the exact sufficient condition (See [Supplementary file 2](#) for the full supplementary analysis results with relative change in U5MR).

Discussion

Two conditions were found to be sufficient conditions towards achieving the SDG3 targets thresholds (UHC and relative change in U5MR): alignment of partners' plans with national priorities and having joint TA plans. These results for two conditions out of the six included within the SDG3 GAP monitoring from the 17 FCAS included in our study suggest that focusing on national capacities and strengthening systems while limiting fragmentation of support, which can hinder the system, could create sufficient pathways towards UHC. This is in line with a wide range of research in the health sector, which has examined the threats of fragmentation in health systems due to lack of alignment, and hence stresses the need to join efforts to build unified national system capacities.^{14,27-31} It is important to clarify that while UHC remains a national responsibility, the EDC principles assessed in this study reflect the behaviours of external health partners, which can either support or hinder government-led progress. In the context of FCAS, where state capacity may be compromised, such partner behaviours can play a particularly influential role, but

Table 3. Parsimonious Solution and Solution Model Towards Universal Health Coverage (Solution Model: Align + Joint TA → UHC)

	Consistency	Raw Coverage	Unique Coverage	Covered Cases
Align	1.000	0.273	0.273	Comoros, DRC, Eritrea
Joint TA	1.000	0.182	0.182	Mali and Zimbabwe
Model	1.000	0.455		

Abbreviations: DRC, Democratic Republic of Congo; TA, technical assistance; UHC, universal health coverage.

they do not replace the foundational functions of government stewardship.

The countries that have achieved a UHC index value higher than 40 and had alignment as a sufficient condition in our model have in fact been found to be making reasonable progress on attaining this target through the active alignment of partners. For example, the Comoros have been investing highly and jointly with its global partners in improving primary healthcare (PHC) through a model centred on building national capacities and institutions.^{32,33} Donors, in particular, reported the alignment with national plans to be progressing well.³⁴ This must be considered alongside high foreign expenditure on health (within the outlined priorities), accounting for up to 33% of the total health expenditure, combined with an increase in domestic allocation of resources to health, thus leading to both improvements in overall health indicators and a reduction in out-of-pocket spending.³² The support of health partners in the DRC has been reported to be strongly aligned with the priorities set in the National Health Sector Development Plan. This led to focused investments in the weakest sections of the system, which required better alignment from partners (eg, the drug supply system), and resulted in a 50% reduction in the stock-out rates for medicines.³⁴⁻³⁶ This was combined with major health financing reforms led by major global partners in the DRC.³⁷ Evidence on the contribution of alignment to attaining health targets in Eritrea is scarce, but the country has continued to produce strategic documents that outline its health priorities over the past decade, with an emphasis on partners' alignment as a strategic direction.^{38,39}

Kanagat et al⁴⁰ have argued that joint TA is an important determinant for system strengthening in LICs, one that is as important as the financial support itself, given that it is driven by the recipient country and owned in a holistic, contextualised manner. Mali has reportedly mapped and defined the support its partners provide (technical as well as financial) based on its health reform framework priorities; this has focused on PHC via community health workers and digitalisation, as well as the supply of medicines and performance-based financing reforms.⁴¹ In Zimbabwe, joint TA from partners, especially the SDG3 GAP signatories, has led to the development of the National Health Strategy and the health sector investment case. This assisted in the response and recovery efforts following COVID-19, as well as the joint implementation of gender sensitive interventions that ensured access to and use of sexual and reproductive health services.⁴²

The solution model we developed based on these six EDC conditions could not, however, explain the attainment of a UHC index value over 40 for six of the FCAS (Afghanistan, Burundi, Haiti, Mozambique, Syria, and Yemen). Factors beyond these EDC conditions may have contributed to their UHC index values. Afghanistan is known to have implemented an evidence-based PHC centred basic services package since 2017, with financing and provision reforms, via contracting with non-governmental organisations, among other reforms.^{43,44} Burundi has significantly increased its public financing of health, reaching 13.6% of the state budget by 2021.⁴⁵ Mozambique health partners have focused support

on community health strategy interventions that improved overall health outcomes with a drop in the U5MR by 30% since 2011.⁴⁶ Syria had good health indicators, including UHC, before the war, ranging around 60 since 2010.¹⁵ This likely reflects the historically extensive public healthcare infrastructure and the availability of low-cost services in public facilities prior to the conflict, as documented in assessments of Syria's pre-war health system performance.⁴⁷

Although the EDC principles examined in this study are rooted in long-standing aid effectiveness and subsequent EDC frameworks, our findings contribute new value by testing these assumptions within FCAS, which provide a context where alignment, harmonisation, and joint action face profoundly different constraints than in more stable settings. Moreover, this study also extends the literature by linking EDC principles to health system performance outcome (ie, UHC), rather than focusing only on partnership processes.

Advancing on Effective Development Cooperation and Universal Health Coverage Within Technical and Contextual Challenges

While many countries have set UHC as a strategic target for their health sector with the aim of achieving better economic and human development, it is evident that the pathways to attain UHC are not the same, given the variations in challenges and solutions that each state experiences.⁴⁸ Further, UHC is mostly reported on through the services coverage index, which is complex and requires the collection of many underlying indicators. Missing data are a common feature and hinder reporting for the UHC service coverage index. The UHC tracking report itself¹⁵ points to the difficulty of following progress on UHC indicators regularly, which is a challenge we also found, given that the latest published UHC index data were from 2021. Because we also focused on FCAS, it is imperative to mention the importance of considering underlying structural challenges that can hinder UHC progress beyond advancing EDC among health partners. Indeed, Sundewall et al clarified that the efforts to strengthen the health systems in LICs and LMICs are themselves found to be fragmented, and the actors view the meaning of the task in different ways and thus approach it differently.⁴⁹

Although consideration of FCAS has become more important within the premise of leaving no one behind when attaining UHC,¹² it is impossible to overlook the critical role that global partners play in these contexts. Although the financial and technical support partners provide may help in covering critical gaps, fragmentation and loss of focus negatively influence health systems in already fragile settings.⁵⁰ EDC is therefore critical in FCAS. Yet, we witnessed the challenges of tracking EDC indicators. The indicators included in the SDG3 GAP report are relatively vague and report on the perceptions of the national governments related to the partners' commitment rather than measuring real changes in partners' behaviours that may help to advance towards attaining targets. Adjustments to how these conditions are measured and to the overall framework are needed; revisiting the experience of the IHP+ on monitoring EDC could be useful. Similar critiques of EDC monitoring

have also been reported beyond the health sector, where calls for better definition of the indicators of the Global Partnership for EDC have been voiced.¹⁶ It is possible that monitoring by SDG3 GAP of EDC conditions—instead of the UHC2030, the predecessor of the IHP+—could have hindered natural progress on EDC monitoring in the health sector. This multiplicity of health partnership fora, where these two organisations, among others, advocate commitment for cross-cutting targets, is an issue that requires future investigation or at least better alignment and cross-learning.

Our findings and recommendations speak to two distinct but interlinked communities of practice. For the field of development cooperation, the study provides empirical insight into how measurable behaviours by partner organisations affect downstream sectoral outcomes. For the health systems and UHC literature, the analysis highlights the ways in which external actors shape governance, coordination, and system functioning in FCAS, complementing state-driven efforts to achieve UHC.

Methodological Considerations

An advantage of QCA is that it allowed the examination of this important issue while considering different solutions and both negative and positive outcomes in the presence and absence of these conditions, within such limited number of countries. The supplementary analysis carried out attests to the rigour of the resulting solutions. Yet, due to the limited number of cases, we were not able to examine any further factors that could have affected UHC attainment. Future research could advance the conceptual innovation of this work by extending QCA to additional variables (eg, governance quality, humanitarian–development nexus dynamics, financing stability) once data availability allows. This would further test the robustness of EDC assumptions in fragile contexts and refine theoretical models linking development cooperation to outcomes related to health or general development.

The limited number of cases and the multiplicity of the conditions beyond the usually recommended threshold for QCA (around one condition per four cases)¹⁹ could have contributed to the solutions having low to moderate coverage (ie, with moderate level explanatory strength at best). Further cases might have led to more deliberate solutions and UHC attainment pathways. The presence of UHC data only up to 2021 hindered the monitoring of progress.

Finally, the rating technique used for EDC conditions was completed by personnel with close and complex relations with the SDG3 GAP partners, and hence the consideration of acquiescence bias limits trust in the data accuracy and led to the choice to rely on the top rating only to indicate the presence of conditions. The choice of threshold for UHC index was easier because we could base it on thresholds outlined in the UHC tracking report. We must mention, however, that with the prolonged conflicts in some of the included countries, instability and institutional weakness may have hindered the reporting and data availability, especially within a complex, data-intensive indicator like the UHC service coverage index. Our reported results only indicate that these countries met the set threshold for medium UHC classification (40 or above)

within the 2021 WHO–World Bank UHC tracking report. This analysis also did not indicate any progress over time on UHC or otherwise, as it was not possible to run such analysis given the lack of progress reports or further data when the study was conducted.

Conclusions

The results of this study highlight the alignment among partners in FCAS to minimise loss of resources and the fragmentation of already weak health systems as a condition that sufficiently coincided with having a UHC index value of 40 or above. The same outcome was witnessed with joint TA, which allows the provision of the most contextual sustainable solutions. Overall, the cases examined faced a variety of challenges, and while some showed progress with or despite the solutions focused on EDC, the results showed that pathways to UHC are varied and unique.

Both national governments and global partners should consider our results and recommendations, as normatively governments continue to lead UHC reforms, while external partners are responsible for ensuring their support aligns with national priorities and is delivered in a coordinated manner. Enhancing these partners' behaviours is critical in FCAS, where the constraints on state capacity make fragmentation more damaging.

We also call for improvements to the framework and measures currently deployed to track EDC implementation towards UHC and SDG3, as well as more frequent monitoring to allow further timely examination. If reporting from additional countries became available, it would enable the examination of pathways towards UHC with more factors. We encourage better alignment of health partnership platforms globally and locally.

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Disclosure of artificial intelligence (AI) use

Not applicable.

Ethical issues

All data utilized were secondary data published in public databases and officially disseminated reports with no need for permissions or ethical approval.

Conflicts of interest

Authors declare that they have no conflicts of interest.

Authors' contributions

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Supplementary files

Supplementary file 1. Data Set and Extra Analysis Details.

Supplementary file 2. Supplementary Analysis.

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