

١ **Classification and review of health financing frameworks: what do they**
٢ **focus on to assess and improve the situation?**

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10 Abstract

16 Objective

17 Health financing assessment is of growing interest to policy makers to develop reform
18 strategies towards achieving universal health coverage. Different frameworks for assessing of
19 health financing systems have been developed. The purpose of this study is to review the
20 current frameworks for understanding and assessing health financing and draw out the
21 dimensions of conceptual frameworks and how different concepts are used in relation to the
22 concept of health financing assessment. Lessons learned from different frameworks would
23 guide the future use and formulation of such frameworks.

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20 Methods

26 We carried out a systematic search strategy, using the PubMed database to find peer reviewed
27 published literature. A search using generic search engines (Google Scholar and the Google)
28 was also performed through a less structured search to find additional documents and reports
29 published. To increase the comprehensiveness of search, Websites of World Health
30 Organization (WHO) and World Bank were also searched. We included any type of report or
31 peer reviewed journal article that reported frameworks to assess, review and map financing
32 functions and sub-functions and highlight different factors that affect it.

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34 Results

35 Fifteen frameworks/tools developed during 2001 until 2020 were found. We classified
36 frameworks by grouping them into systems approach -analytical frameworks ,indicator-
37 based, and descriptive/ narrative categories. These frameworks vary in the concepts,
38 functions and processes, dimensions, strategies and meet various international or country-
39 specific challenges.

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٤١ Conclusion

٤٢ The process of framework development for health financing review is becoming more
٤٣ comprehensive with pushing universal health coverage to the international agenda. Despite
٤٤ being diverse, various health financing frameworks/ tools offer synergistic views to the health
٤٥ financing system and provide a comprehensive picture of the health financing system. While
٤٦ some frameworks covered the majority of the elements, not any of the frameworks on its own
٤٧ covered all the elements. Health financing review is a laborious endeavor, which usually
٤٨ needs diverse data and an expert team. It is sometimes infeasible to access ready and user-
٤٩ friendly information; therefore, it is important to apply them with some flexibility.

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00 **Background**

06 Health financing occupies a central role in Universal Health Coverage (UHC), one of the
07 Sustainable Development Goals (SDGs) health targets to be committed (1). World health
08 report 2000 highlights the functions of a health financing system: the mobilization,
09 accumulation and allocation of money to cover the health needs for all the people (2). In
10 its 2010 World Health Report, the World Health Organization defines the concept of health
11 financing for universal coverage as “financing systems need to be specifically designed to
12 provide all people with access to all needed health services of sufficient quality without being
13 exposed to financial hardship” (3). Health financing as one of the structural aspects of health
14 systems to achieve improved health outcomes, equity, and public satisfaction, play an essential
15 role in universal health coverage (1, 4).

16 Health policy makers around the world are faced with increasingly difficulties to sustain
17 sufficient financing for health care (5). Tens of millions of people the world over either do not
18 have access to health care services they need or they have to pay for it, which are catastrophic
19 or impoverishing (3).

20 Many countries, particularly low and middle-income ones, are developing health financing
21 systems that enable them to sustain or to move towards universal health coverage. However,
22 there is still a gap in evidence and knowledge about national and country-level health
23 financing systems that perform well in terms of improving health outcomes and financial
24 protection (3, 6, 7).

25 To date, multiple frameworks to assess or review health financing have been developed. The
26 ultimate goal of a conceptual framework is to provide a “starting point” for a national health
27 reform strategy (8). The purpose of some frameworks is to identify the factors involved in
28 health financing, and suggest policy options.” They provide a systematic tool for policy-

۷۹ makers to analyze functions and interactions of different dimensions of health systems that
۸۰ must be considered for developing policy alternatives and reforms (9). They help synthesize
۸۱ data
۸۲ systematically to fill the gap between pure academic research and the needs of policy-makers
۸۳ (10), distributional impact of various sources of health system funds and the logic of actors (9,
۸۴ 11, 12).

۸۵ Researchers with different perspectives attempted to apply different criteria for review of
۸۶ health financing system. Some authors framed their approach on the two WHO 2000 and 2010
۸۷ reports while others attempted to explain the relationships between contextual and structural
۸۸ elements of the health financing system. In order to be evidence-based, decisions about
۸۹ financing must consider all functions of health financing and factors that affect this
۹۰ component. We conducted a comprehensive review of the existing published knowledge on
۹۱ health financing assessment. More specifically, we: (1) review the current frameworks for
۹۲ understanding and assessing health financing and (2) draw out the dimensions of conceptual
۹۳ frameworks and how different concepts are used in relation to the concept of health financing
۹۴ assessment. Lessons learned from different frameworks would guide the future use and
۹۵ formulation of proper reforms to improve health financing system performance. We described
۹۶ and compared health financing frameworks to guide policymakers when selecting a
۹۷ framework to use for assessing health financing and help them use evidence for health finance
۹۸ policy making. This is accomplished by giving a brief overview of frameworks focusing on
۹۹ the dimensions and metrics for each one and summarizing qualitatively the key dimensions,
۱۰۰ which the majority of the included frameworks highlighted for health financing review.

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1.2 Method

1.3 We carried out a systematic search strategy, using the PubMed database to find peer reviewed
1.4 published literature up to April 2020. The search was guided by the following search terms:
1.5 health, finance*, framework*, assess*. A search using generic search engines (Google
1.6 Scholar and the Google) was also performed through a less structured search using general
1.7 terms representing ‘health financing framework’ and ‘health financing’ to find additional
1.8 documents and reports published. To increase the comprehensiveness of search, Websites of
1.9 World Health Organization (WHO) and World Bank were also searched for relevant grey
1.10 literature and the reference lists of all selected documents were scanned. The search results
1.11 were narrowed down using three criteria: English-language literature, review articles and
1.12 timeframe since 2000.

1.13 Our initial intention was to focus on reviews, and meanwhile on the usages of framework(s)
1.14 in assessing health financing systems. Therefore, the final selection of papers included a
1.15 combination of both papers, which either have proposed a framework or used a conceptual
1.16 framework to frame the design of their research project or to explain the outcomes of policy
1.17 assessment of how a country’s health financing are organized.

1.18 We included any type of report or peer reviewed journal article that reported frameworks to
1.19 assess, review and map financing functions and sub-functions and highlight different factors
1.20 that affect it, in order to identify all functional and non-functional dimensions needed to be
1.21 considered in assessing or reviewing of health financing system. Towards this end, analytical,
1.22 descriptive and even prescriptive frameworks were selected. The frameworks that analyze the
1.23 performance of the entire health system are also considered since health financing is a main
1.24 component of health system.

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1.26 Results

127 Fifteen frameworks/tools developed during 2001 until 2020 were found. The identified
128 frameworks or tools goals were “assessing” or “reviewing” health financing. We classified
129 frameworks by grouping them into systems approach -analytical frameworks ,indicator-
130 based, and descriptive/ narrative categories. These frameworks vary in the concepts,
131 functions and processes, dimensions, strategies and meet various international or country-
132 specific challenges.

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134 **Table 1: An illustrative list of health financing conceptual frameworks**

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136 *Systems approach -Analytical frameworks*

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138 Kutzin suggested an analytical tool for critical assessing of the functions of health financing.
139 The framework identifies three pillars (1) “explicit health financing policy objectives as
140 assessment criteria”; (2) “a function-based framework as a basis for describing health
141 financing systems”; and (3) “analysis of fiscal context”. Kutzin conceptualized the
142 organizational and institutional arrangements of components of health financing and
143 categorized options under each function. He also stressed on the information and
144 implementation of regulation as key policy tools to enhance the insurance function (7, 13, 14).

145 The framework developed by William Hsiao lists the causal components which explain the
146 system’s outcomes, health status, financial risk protection and consumer satisfaction as final
147 goals; access, quality and efficiency of service delivery as intermediate outcomes; and
148 financing, organizational structure, payment mechanisms, regulation and information as
149 means (15).

150 Bertone and Meessen proposed a framework drawing from concepts of New Institutional
151 Economics (NIE). It aims to provide a better understanding of how institutional arrangements

102 shape the performance of health systems. It built upon the idea of the institutional design and
103 organizational practice for health financing performance proposed by Mathauer and Carrin.
104 This framework consists of seven dimensions: ‘institutional arrangements’, ‘enforcement
105 mechanisms’, ‘property rights’, ‘incentives’, ‘intrinsic and extrinsic motivation’, ‘behavioral changes’
106 and ‘organization’s performance’. Meessen highlighted the relations between these dimensions and
107 stated that power and motivations of the key actors, enforcement mechanisms and the content of rules
108 shaped the ‘property rights’. These decision rights analyses include the decision and earning rights of
109 the main actors, which in return defines the alignment of actor’s incentives with principals’
110 objectives. Incentives usually take advantage of intrinsic and extrinsic motivation and determine
111 behavioral changes. Assessing the contribution of behaviors to the goals of health system is the last
112 step of analysis (16). The framework should lead to a better understanding of the important role
113 of institutional analysis in the design and implementation of performance-based financing
114 (PBF) interventions.

115 WHO Health Financing Strategy for the Asia Pacific Region (2010-2015) framework includes
116 "issues and challenges", "main policy objectives", and "actions" to take by member states and
117 WHO. This framework contains some robust strategic areas to analyze health financing
118 situations and identifies specific actions to achieve universal coverage. Eight strategic areas
119 are public spending on health, effective aid for health, efficient rationalizing health
120 expenditures, prepayment and pooling, provider payment methods, safety-net mechanisms for
121 the poor and vulnerable, evidence-based policymaking and monitoring and evaluation (17).

122 World Bank conceptual framework provides practical steps on “how” to introduce health
123 insurance in low-income countries. To simplify the complicated health insurance issue, this
124 framework has divided health insurance into eight design elements including: Feasibility of
125 Establishment Health Insurance (gap analysis, political support, political and financial
126 capacity, provider capacity and socioeconomic factors); Financing Mechanisms (different
127 kinds of health insurance); Population Coverage (identifying different groups of population to

١٧٨ be covered especially hard-to-reach populations such as low-income, rural, informal sector
١٧٩ workers); Benefits Package; Provider Engagement; Organizational Structure; Operational
١٨٠ processes; Monitoring and Evaluation of Health Insurance Schemes. The purpose of this
١٨١ framework is to help health insurance designers from middle and low-income countries with
١٨٢ step-by-step activities to scale up existing health insurance funds or to design a health
١٨٣ insurance plan from the beginning. For each design element, the framework helps policy
١٨٤ makers to identify the political, economic, social, and institutional opportunities and barriers,
١٨٥ and alternative approaches so they can adjust them according to the real conditions in their
١٨٦ countries in a way to move health insurance forward on a rational and feasible path (18).

١٨٧ In the study by Bazayar et al., the above framework was applied to analyze challenges ahead
١٨٨ of merging health insurance funds in Iran as a country with fragmentation in health risk pools
١٨٩ to create a single national fund. In their study, they introduced a new framework, added three
١٩٠ new aspects to the Work Bank framework, and extended it to 11 elements. Three new
١٩١ dimensions were “Justification of the consolidation process; the explicit definition of the
١٩٢ policy objectives”, “Stewardship”, and “Health Service Delivery”. Stewardship refers to
١٩٣ alignment of health insurance system with the policies of the broader health care system
١٩٤ especially in countries with a purchaser-provider split. “Health service delivery” refers to
١٩٥ how health insurance schemes provide health care services for their beneficiaries and
١٩٦ differences between them. This item also refers to the effect of consolidation on the quality
١٩٧ and quantity of health care services delivered by the health care providers (19).

١٩٨ Resource Tracking and Management” (RTM) framework provides a comprehensive analysis of
١٩٩ health financing by bringing 5 key resource tracking efforts including Resource Mobilization,
٢٠٠ Resource Allocation, Resource Utilization, Resource Productivity and Resource Targeting
٢٠١ into one comprehensive structure. It collects information by different tools such as fiscal
٢٠٢ space analysis; Public Expenditure Reviews (PERs), Cost-effectiveness analysis and priority

2.3 setting, planning/budget process, and National Health Accounts (NHAs), Public Expenditure
2.4 Tracking Surveys (PETs), Quantitative Service Delivery Survey (QSDS) or facility surveys,
2.5 and Benefit Incidence Analysis (BIA) (20).

2.6 The aim of the accounting framework (SHA) is to provide a clear and transparent picture of a
2.7 country's financing schemes, institutional units and key transactions (flows). The SHA
2.8 framework makes it possible to analyze different issues as follows: the revenue- collection of a
2.9 particular financing scheme; mobilizing of revenues of particular institutional units of the
2.10 economy; the share of the main financing schemes in a country's health care sector; the
2.11 (purchased services under the different financing schemes; resources allocation of the different
2.12 financing schemes among the different services; financing of a particular health care service;
2.13 allocation of the resources of the different financing schemes among the different groups of
2.14 beneficiaries; flow of money; management of health care financing; and institutional
2.15 arrangements of governing the funds of financing schemes (21).

2.16

2.17 *Indicator-based frameworks*

2.18 U.S. Agency for International Development designed a structured and indicator-based
2.19 approach to provide a rapid and comprehensive assessment of a country's health system. In
2.20 Health Systems Assessment Approach (HS20/20), data related to health, economics and
2.21 demographics indices are retrieved by desk review of relevant documents and structured
2.22 stakeholder interviews. Health financing strengths and weaknesses are diagnosed by data
2.23 analysis and then based on country priorities and gaps, recommendations and policies will be
2.24 developed (22).

2.25 OASIS framework proposed by WHO uses secondary data, document review, and
2.26 stakeholder interviews. It consists of three steps: a health financing performance assessment, a

more detailed institutional-organizational analysis and identification of options and necessary changes required for health financing improvements. This framework identifies six types of bottlenecks in the institutional design and organizational practice, and six entry points of proposed changes to identify as, enhancing health financing performance, which focuses on modifying legal and regulatory provisions, improving organizational practice through strengthening organizational capacity and enforcement practices. It applies to review either the whole health financing system or specific health financing schemes (11).

The Public Financial Management Performance – Self-Assessment (PFMP-SA) framework is derived from the PEFA framework, adapted to the needs of the health sector, which promote ministries of health to conduct self-assessments of the performance of their PFM systems. The PFMP-SA include a range of 12 modified ‘standard’ PFM indicators as follows: “1. Expenditure against original budgets links to programs, priorities, and results 2. Extent and monitoring of expenditure payment arrears toward suppliers, contractors, and employees 3. stakeholders’ access to key fiscal information 4. Ministry’s practices and success in elaborating medium-term planning, budgeting and expenditure frameworks 5. Cash flow predictability and control over timely budget execution 6. Access and control over payroll by MOH 7. Adequate, efficient, and transparent procurement system 8. Formal and documented internal controls 9. Internal audit functions 10. The accounting system provides coherent information on resources reaching lower levels of service delivery 11. The accounting system can produce timely periodic reports 12. The MOH is receiving and using financial information provided by donors for budgeting and reporting on project and program aid.” The assessment evaluates the indicators impact on the six core dimensions: credibility of the budget; comprehensiveness and transparency; policy-based budgeting; predictability and control in budget execution; accounting, recording, and reporting; and external scrutiny and audit (23).

narrative/descriptive Frameworks

202 Kutzin and McIntyre Developed “Guidance on Conducting a Situation Analysis of Health
203 Financing for Universal Health Coverage “which can be used as a complement to OASIS or
204 independently. It is a tool aims to assess a country’s health financing system relative to the
205 goal of universal health coverage (UHC) and the challenges faced in moving towards UHC.
206 The approach is predominantly qualitative with some supporting quantitative data. It is a
207 comprehensive guidance for situation analysis, and unlike other frameworks; this model goes
208 beyond simple instructions and can be used by users to assess performance in practice. The
209 authors argued key contextual factors including health expenditure patterns and implications,
210 public sector financial management, and the structure of public administration and fiscal
211 context are essential for a full analysis of health financing arrangements. They also highlighted
212 relative power of different actors in the budget decision-making process, expenditure control
213 measures, extent of decision-making autonomy of health sector managers and fate of resources
214 ‘released’ through efficiency savings. In the second stage financial protection and equity in
215 finance, health services quality, equity in health services utilization and in the distribution of
216 resources, health system efficiency, transparency and accountability are assessed (24).

217 Chatham House developed a framework that concentrates on three areas: the domestic
218 financing
219 of national health systems, the joint financing of global public goods for health, and the
220 external financing of national health systems. To assess domestic financing of national health
221 systems, it emphasizes on government’s responsibilities in eight areas. 1) efficient, equitable
222 and sustainable financing, 2) percent of gross domestic product (GDP) on health, 3)
223 minimizing catastrophic and impoverishing out of pockets (OOPPs),4) improving revenue
224 generation through mandatory and progressively prepaid pooled funds, 5) innovative taxation
225 policies and tax compliance measures, 6) expand comprehensive primary health care for all
226 population and set priorities to specialized care, 7) develop a systematic and multi criteria

277 decision processes for priority-setting and 8) improve efficiency by focusing on corruption,
278 strategic purchasing and providers payment mechanisms (25).

279 The “aligning public financial management and health financing guide “ is jointly prepared by
280 Results for Development (R4D) and WHO’s Department of Health Systems Governance and
281 Financing. This guide provides a framework for health and finance policy-makers for
282 diagnosing misalignments and obstacles in regards to matching health financing objectives
283 and PFM systems and determining actions that can improve alignment. This guide is arranged
284 into six assessment modules: laying the groundwork, health budget formulation, health budget
285 execution and provider payment, budget accounting and reporting, fiscal sustainability, and
286 options for achieving better alignment between PFM and health. Each module includes a set of
287 questions in summary tables outline the current situation and identify potential bottlenecks
288 (26).

289 The “World Bank FinHealth PFM-in-health toolkit” identifies the main PFM-related
290 bottlenecks and opportunities to improving service delivery and make recommendations and
291 options for strengthening PFM arrangements. The framework provides a ‘whole-of-system’
292 view and a wide range of issues like supply-side service delivery issues, key PFM systems and
293 health financing best practice grouped across 24 health functions are analyzed qualitatively
294 and quantitatively. Undertaking a diagnostic using the toolkit will result in options for
295 strengthening PFM arrangements to support improved health service delivery (27).

296 Discussion

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298 In this paper, we reviewed Fifteen proposed health financing frameworks/ tools from 2001 to
299 2020. These frameworks/ tools are developed attempting to assess and review health
300 financing. Since there are well-established and important contribution of "comparative

۳۰۱ perspective used in both academic field of public policy analysis and in more applied policy
۳۰۲ studies" (28), frameworks/ tools help to assess health financing in different settings, the
۳۰۳ proposed table is helpful to identify promising framework and to enable categorizing and
۳۰۴ comparatively assessing frameworks.

۳۰۵ Despite being diverse, various health financing frameworks/ tools offer synergistic views to
۳۰۶ the health financing system and provide a comprehensive picture of the health financing
۳۰۷ system. They vary somehow in terms of the criteria and performance indicators, the position
۳۰۸ of context and actors, and the degree to which they weight the importance of institutional and
۳۰۹ organizational factors. Across the majority of the mentioned frameworks/ tools, health
۳۱۰ financing was assessed alongside several dimensions, which has ten categories: a) contextual
۳۱۱ factors, b) governance, c) social values, d) health information e) administrative capacity, f)
۳۱۲ laws and regulation, g) actors and stakeholders, h) goals and functions, I) incentives, j)
۳۱۳ enforcement mechanisms.

۳۱۴ Nearly among analytical indicator-based frameworks reviewed, it seems there is a consistency
۳۱۵ of their approach in identifying the performance indicators. The OASIS framework and
۳۱۶ "Health 2020" provide a supposedly well-defined categorization of performance indicators for
۳۱۷ revenue collection and pooling except strategic purchasing indicators, which is difficult to
۳۱۸ measure, assessed by data gathered through MOH policy documents and key informants
۳۱۹ interviews. The unique value of these frameworks is that they provide a practical basis for in-
۳۲۰ depth analysis of structural, organizational and institutional components of health financing
۳۲۱ system, which bring them together within a wide perspective and link health financing
۳۲۲ functions to the achievement of intermediate and broader health system objectives. Despite
۳۲۳ some similarities in their approach, there are still some differences in their stress on health
۳۲۴ financing rules and organizational practice. However, the OASIS demonstrated less about
۳۲۵ contextual factors as compared with the other mentioned frameworks (8, 11, 22). Some

326 countries like Korea, Cambodia and Vietnam, assessed their health financing system using
327 OASIS framework, identified achievements and challenges and suggested policy options to
328 maintain or accelerate progress towards universal coverage (29-31) .Chua and his colleague in
329 their study used the WHO Health Financing Strategy for the Asia Pacific Region (2010-2015)
330 as the framework to evaluate the Malaysian healthcare financing system. This study shows
331 that good governance would ensure adequate focus on the attainment of universal coverage
332 through allocating public spending on health (32).

333 There is a gradual shift towards a greater consideration of Public Finance Management. Kutzin
334 and McIntyre in their framework recommended health financing assessment should put further
335 emphasis on “Public Finance Management”. Their framework included a descriptive approach
336 and detailed assessment of public sector financial management, relative power of different
337 actors in the budget decision-making process, extent of decision-making autonomy of health
338 sector managers (7, 22) .Describing health financing and PFM in a national health system, this
339 tool offers analysis of the broader reform environment to inform moving to UHC.

340 The resource tracking and management framework provides a comprehensive data on
341 financial flows on the one hand and linkage between the financial statistics and the policy
342 issues, analysis and interpretation on the other hand. Understanding this two-way relationship
343 is critical for diagnosing misalignments between health financing policies and PFM good
344 practices, the health financing system main obstacles to intervene, and actionable
345 strategies for improving alignment (20, 26).

346 The FinHealth PFM-in-health toolkit aims to provide a ‘whole-of-system’ view, from the
347 upstream planning and budgeting to the downstream budget execution process grouped
348 across 24 health functions, derived from a framework that brings together supply-side service
349 delivery issues, key PFM systems and health financing best practice.

350. Using this framework, the tool aims to make clear the linkages between identified PFM
351 problems, health financing in general, and service delivery. In this way, it is different to – for
352 example – a PEFA for health approach, which focuses on the operation of PFM systems but
353 with no specific focus as to how these affect service delivery.

354 The FinHealth toolkit does not set clear external benchmarks against which performance can
355 be quantified and/or assessed. Instead, users of the tool work across questions grouped into
356 24 predefined health functions to draw their own narrative judgments based on the data
357 collected, which are predominantly qualitative with some quantitative elements. Many of the
358 questions within each identified function are in the form of ‘To what extent...’ and ‘To what
359 degree...’, offering an open-ended response where users will have to determine for
360 themselves at what point a sufficient response has been provided. A few of the health
361 function question areas are directly linked to PEFA indicators. It includes a number of
362 questions and areas of focus that could be considered outside a strict definition of PFM
363 system functioning (e.g. payroll, procurement). The tool is certainly broad in that it puts
364 forward a wide-ranging framework for understanding the interrelated issues of delivery
365 bottlenecks, PFM challenges and health financing best practice. A full response to all its
366 questions would provide a great deal of information on health service delivery and its PFM
367 challenges. However, this also represents its major challenge: answering every question
368 within the 24 health function areas – and collecting all the qualitative and quantitative data
369 required to do it – may prove a significant logistical and resource challenge to carry out in its
370 entirety (27)

371 There are, on the other hand, some analytical frameworks like Chatham House, and
372 frameworks proposed by Kutzin, Mossialos and Meeseen that have devoted a deep attention to
373 contextual structure, institutional arrangements and valid information. Multi-faceted
374 interactions between these factors from the perspectives of the basic health financing functions

are critical. Absence of a set of comprehensive indicators for evaluating healthcare financing in this group of frameworks is obvious (9, 10, 16, 25, 33). The framework proposed by Hsiao focuses more on health financing functions, their causal links and impact on different objectives in policy making (15). Kutzin also focuses on the health financing context and the interactions of policies. He conceptualizes the organizational and institutional arrangements of the components of health financing. He also stresses on the implementation of regulation and information as key policy tools (7, 13, 14). In the Gottret et al. study of Health Financing Revisited, common enabling factors across all or most of the nine studied countries were first identified. They include institutional and societal policy and implementation factors (7). Several studies are published with a focus on contextual factors. They showed that developing health financing system within the particular macro-economic, socio-economic and political context of the country and consideration of national context are of great importance (34-36).

Scope of frameworks/tools varies. Some scopes have a narrow perspective and focus only on health financing and its functions while others assess the whole health system. The framework proposed by Hsiao and "Health 2020" aimed to analyze the health system as a whole. In their study of evaluation of Bulgaria's health financing system, Couffinhal et al. employed WHO/World Bank taxonomy of health systems and the related goals and objectives. Their assessment encompassed health service delivery, political economy and health financing. They argued that the interaction of health infrastructure, human resources, information, drugs and medical supplies, technologies and stewardship together with health financing functions determined how well health system achieved its ultimate goals (37).

Ovretviet and Marmor believed that comparative health policy helped to "expand relationships among different countries by understanding their similarities and differences" and by "adapting ideas that have worked elsewhere" (28). Quoting Rose and Marmor (1993,

1997), it has been argued that “shaping of a common global framework for health financing is a fallacy in international health comparisons discussions as it overlooks the importance of context” (38).

Health systems research focuses more on the “science of delivery” today, which means how the guiding principles of the system are implemented in practice, in a given context. The issue of what works and what does not, is increasingly based on the socioeconomic, political and cultural context (37). Considering these variations which differ among countries, Mossialos emphasizes in his model on political considerations, economic activity, demographic profile, environmental factors, external pressures and social values (10). Political and national traditions shape the values, which have complex interactions with institutions and organizational performance. Solidarity, cost-sharing arrangements and considerations of cost effectiveness all play an important part in the decision for the use of resources (39).

Walt and Gilson considers essential role of general and health system context, content of policies and process in defining a country's vision, priorities, and course of action for improving health financing policies. Stakeholder's concerns, interests and positions are very important in proposing health financing strategies. Involving stakeholders might eliminate societal resistance, increase society's support and decrease feasibility constraints (40, 41).

Zoidze et al. assess the impact of the “national program for Medical Assistance to the Poor” on equity and financial protection using the “policy triangle framework” (42). In one of the studies looking at social health protection of the informal sector, the researchers focused on the policy analysis approach developed by Walt and Gilson and considered context and the views of scholars, politicians, bureaucrats to investigate the main policy and operational barriers (36). Meessen explicitly considered the magnitude of the “property rights” and defined the alignment of actor's incentives with principals' objectives and their behavioral pattern (16).

٤٢٥ The World Bank framework provides eight areas for countries which try to establish a health
٤٢٦ insurance system from the beginning or extend their current health insurance system. Bazyar
٤٢٧ used this framework as a initial framework to study the challenges ahead of merging health
٤٢٨ insurance funds in Iran. Studying merger of the existing health insurance funds as a policy to
٤٢٩ boost risk poolong is something new which has been emphasized in this framework. Much is
٤٣٠ needed to be done to understand the experience, advantages, disadvantages, challenges,
٤٣١ facilitators, and process of merging health insurance funds in those countries which have
٤٣٢ implemented this policy (43-45)

٤٣٣ The evidence reviewed here shows that over time, more determinants of health financing as
٤٣٤ demographic, socioeconomic, environmental, institutional and political factors are considered
٤٣٥ for assessment. However, none of the frameworks on its own covers all the elements. It is
٤٣٦ necessary to develop a broad and coherence framework to ensure containing all of the factors
٤٣٧ affecting health financing to achieve UHC. Shaping of a comprehensive framework for health
٤٣٨ financing has to contribute to identify effective policy interventions. Health financing analysis
٤٣٩ is a laborious endeavor that usually needs diverse data and an expert team. It is sometimes
٤٤٠ infeasible to access ready and user-friendly information, therefore it is important to apply to
٤٤١ them with some flexibility.

٤٤٢ It is worth clarifying that although our research methods are extensive, but there might be
٤٤٣ additional frameworks that we have not identified. For example, frameworks might have been
٤٤٤ remained as unpublished policy documents. There is not any rich literature implicating the
٤٤٥ validity of these frameworks and the results of applying them in making policy decisions, so
٤٤٦ more studies need to be carried out. Also development of a comprehensive framework was
٤٤٧ beyond the scope of this paper. However, in the light of the importance of health financing
٤٤٨ and UHC, an examination of the published and either unpublished health financing conceptual

٤٤٩ frameworks is timely and fundamentally important and may give informative and timely clues
٤٥٠ to health policy makers.

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٤٥٣ Conclusion

٤٥٤ Given the complexity of health financing, there is no single, widely accepted framework for
٤٥٥ assessing financing of health sector. Health financing assessments need to cover a potentially
٤٥٦ wide range of dimensions – depending on country context – and to take a holistic view of the
٤٥٧ financial system. There is an overlap in all frameworks as we expected and common elements
٤٥٨ are observed among current frameworks. There are also some dimensions that enough
٤٥٩ attention should be paid to, like political dimensions and the role of stakeholders. Some
٤٦٠ frameworks need a great and time consuming data gathering procedure. This comparative
٤٦١ study suggests that simplifying concepts for policy makers should be a priority in the
٤٦٢ development of a coherent and comprehensive framework. Development such frameworks
٤٦٣ with explicit feasible recommendations, building on key links between contexts, power
٤٦٤ relationships among system stakeholders, institutions and interactions between health
٤٦٥ financing functions has a practical value. We hope that in seeking to build a practical
٤٦٦ framework, we at least help to give a comprehensive picture of health financing frameworks to
٤٦٧ initiate and facilitate more works as at present UHC &SDG are in the global agenda.

٤٦٨ **Declarations:**

٤٦٩ Ethics approval and consent to participate: The study received ethical approval from Tehran
٤٧٠ University of Medical Sciences.

٤٧١ Consent for publication: Not applicable.

٤٧٢ Availability of data and materials: Not applicable.

473 Competing interests: Authors declare that they have no competing interests.

474 Funding: There was no financial support for writing this article.

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476 Authors' contributions: MAS and MB participated in designing the study, gathering data, and
477 writing the manuscript. AR and MB made substantial contributions by reviewing and editing
478 the manuscript and commenting and advising how to organize the manuscript. We confirm
479 that the manuscript has been read and approved by all named authors and that there are no
480 other persons who satisfied the criteria for authorship but are not listed. We further confirm
481 that the order of authors listed in the manuscript has been approved by all of us.

482 Acknowledgements: This research is part of the thesis on "Policy analysis of universal health
483 coverage financing in Iran "which was supported by Tehran University of Medical Sciences
484 (TUMS).

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Table 1- An illustrative list of health financing conceptual frameworks / tools

Framework	Year	Dimensions of assessment
<i>Kutzin (14)</i>	2001	1- Organization of health financing systems: Stewardship of financing (governance, regulation, information) 2- Collection of funds 3- Allocation mechanisms 4- Pooling of funds 5- Purchasing 6- provider payment
<i>Hsiao (15)</i>	2003	1-financing 2- organizational structure 3- payment mechanisms, 4- regulation 5- persuasion (information provision)
<i>Meessen (16)</i>	2009	1- Institutional arrangements 2- enforcement mechanism 3-property rights 4- incentives 5- intrinsic and extrinsic motivation 6- behavioral changes 7- organization's performance
<i>Asia Pacific (17)</i>	2009	1-Public policy and leadership 2-Health financing functions and policy norms 3- Health financing strategies: Investment and spending, Aid effectiveness and Efficiency, Prepayment and pooling, Payment methods and Safety nets, Evidence and information, Monitoring and evaluation
<i>World Bank (18)</i>	2011	1- Feasibility of Establishment Health Insurance 2- Financing Mechanisms 3-Population Coverage 4- Benefits Package 5- Provider Engagement 6- Organizational Structure 7- Operational processes 8- Monitoring and Evaluation of Health Insurance Schemes
<i>Bazyar et. al (19)</i>	2020	1- Feasibility of Establishment Health Insurance 2- Financing Mechanisms 3-Population Coverage 4- Benefits Package 5- Provider Engagement 6- Organizational Structure 7- Operational processes 8- Monitoring and Evaluation of Health Insurance Schemes 9- Justification of the consolidation process; the explicit definition of the policy objectives 10- Stewardship 11- Health Service Delivery
RTM (20)	2020	1-Resource Mobilization, 2-Resource Allocation, 3-Resource Utilization, 4-Resource Productivity 5-Resource Targeting
<i>SHA (21)</i>	2011	1- revenue- collection; 2-mobilizing of revenues; 3-the share of the main financing schemes in a country's health care sector; 4- purchased services; 5-resources allocation of the different financing schemes among the different services; 6- financing of a particular health care service; 7-allocation of the resources of the different financing schemes among the different groups of beneficiaries; 8-flow of money; 9- management of health care financing; 10- institutional arrangements of governing the funds of financing schemes
<i>(HS20/20) (22)</i>	2007	1-Revenue Collection: Amount and Sources of Financial Resources 2- Pooling and Allocation of Financial Resources 3-Purchasing and Provider Payments
<i>OASIS (11)</i>	2011	1-Health financing performance assessment: Resource mobilization, External funding, Pooling, Purchasing, Benefit package, Fund management, Stewardship 2- Institutional-organizational analysis of: Collection of contributions, membership registration / enrolment, Targeted subsidization, Targeted exemption, Provider payment and claims management
PFMP-SA (23)	2013	1-credibility of the budget; 2-comprehensiveness and transparency; 3-policy-based budgeting; 4-predictability and control in budget execution; 5-accounting, recording, and reporting; 6- external scrutiny and audit
<i>Kutzin (24)</i>	2017	1- Fiscal context 2- The structure of public administration 3- Public sector financial management 4- Health expenditure patterns and implications 5- Financial protection and equity in finance 6- Health service quality 7- Equity in service use and in the distribution of resources 8- Health system efficiency 9- Transparency and accountability 10 Revenue contribution and collection mechanisms 11- Fund pooling arrangements 12- Purchasing 13- Policies for benefit design and rationing

<i>Chatham House</i> (25)	2014	<i>1- Domestic financing of national health systems</i> <i>2- the joint financing of global public goods for health</i> <i>3- the external financing of national health systems</i>
<i>Cashin</i> (26)	2017	<i>1-laying the groundwork, 2-health budget formulation, 3-health budget execution and provider payment, 4-budget accounting and reporting,5- fiscal sustainability, and 6-options for achieving better alignment between PFM and health.</i>
<i>PFM</i> (27)	2020	<i>1-wide range of issues like supply-side service delivery issues, key PFM systems and health financing best practice grouped across 24 health functions</i>

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