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Executive Summary

Global supplement sales exceed $150 billion annually [1], driven by vitamins, minerals, specialty supplements, etc. Multivitamin/mineral products consistently lead consumption (30–35% of U.S. adults) [2] [3], followed by vitamin D and omega-3/fish oil. Vitamin D is highly used in North America and Europe (e.g. ~18–37% of U.S. adults, 46% of EU respondents) [2] [4], but lags global revenue leaders. By sales, vitamin D supplements ($1.15B in 2021 [5]) rank far below multivitamins (~$19B) [6], omega-3 (~$7.7B) [7], probiotics (~$6.5B) [8], calcium (~$5.8B) [9] and even vitamin C (~$2.4B) [10]. In North America, multivitamins, D and omega-3 dominate usage; in Europe vitamin D and C lead respondents [2] [4]. Vitamin D appears in many public guidelines (e.g. U.S./Finland fortification) [11], reflecting its health prominence, whereas vitamin C and probiotics have fewer formal recommendations. We compiled market-research and survey data to rank supplements by **users, units, revenue**, and **guideline prevalence**, with regional breakdowns (NA, EU, APAC, etc). Tables summarize each metric (with year, CAGR, and data source), and charts illustrate the rankings and trends. Data gaps (especially global user counts and official prescriptions) are noted, and confidence is rated by source type. Overall, vitamin D is *popular* (especially in high-income regions and guidelines), but not the top global supplement by sales or users – multivitamins and vitamin C or omega-3 often exceed it.

Defining “Popularity” Metrics

We consider four metrics of popularity:

- **Units Sold (Volume):** Total servings or pills dispensed. (Market trackers like Nielsen/Euromonitor sometimes report volumes by category.)
- **Consumers/Users:** Number or share of people taking a supplement. (Often from nutrition surveys: % of population using each supplement.)
- **Revenue:** Retail sales value (annual sales in USD). (From market research: Euromonitor, Statista, IQVIA, etc.)
- **Guideline/Prescription Prevalence:** How often supplements are recommended or prescribed in public health guidelines or medical practice. (E.g., mandatory fortification laws, clinical guidelines.)

Each metric can yield different “rankings.” For instance, many people take vitamin C (high user %, esp. in some regions), but global sales of C supplements may be modest relative to large multivitamin sales. We gathered data for global and regional (NA, Europe, Asia-Pacific, Latin America, Middle East/Africa) markets to compare vitamin D with its main competitors: **Vitamin C, Multivitamins (MVM)**, **Omega-3/Fish Oil**, **Probiotics**, and **Calcium**.

Global Market Overview (by Revenue)

Figure: **Global supplement market size by category (USD billions)**. Multivitamin/mineral supplements overwhelmingly lead in sales (~$19.4 B in 2025 [6]), while vitamin D is a small slice (~$1.15 B in 2021 [5]). Omega-3/fish oil and probiotics each generate several billion annually.

Global dietary-supplement sales reached about **$152 B in 2021** [1], driven largely by vitamins & minerals, specialty (omega-3, probiotics, etc.), herbal, and sports segments [1] [6]. In this context, *"vitamin D supplements"* (oral D2/D3 products) account for only ~1% of global supplement revenue. By contrast, the vitamin category as a whole was roughly $59.5 B in 2025 [12], with multivitamins the single largest type. A market report estimates:

- **Multivitamin/Mineral (MVM) Supplements:** $19.4 B (2025) [6]. CAGR ≈6.8% (2026–2031) [13].
- **Vitamin C Supplements:** ~$2.37 B (2025) [10]. CAGR ~4.9% (2025–2033) [10].
- **Omega-3/Fish Oil Supplements:** ~$7.68 B (2024) [7]. CAGR ~9.1% (2025–2030) [7].
- **Probiotics:** ~$6.5 B (2023) [8]. CAGR ~8.2% (2024–2032) [8].
- **Calcium Supplements:** ~$5.75 B (2025) [9]. CAGR ~8.7% (2025–2035) [9].
- **Vitamin D Supplements:** ~$1.15 B (2021) [5], projected ~$1.90 B by 2029 [5]. Estimated CAGR ≈6% (2021–2029).

Thus **global revenue ranking** (2020s, approximate): (1) Multivitamins; (2) *Other vitamins (non-multi)*; (3) Omega-3; (4) Probiotics; (5) Calcium; (6) Vitamin C; (7) Vitamin D [6] [8] [9] [5]. Vitamin D consistently falls *below* the top four.

Popularity by Number of Users

Surveys show **supplement use is widespread in many regions**. For example, a U.S. national survey (NHANES 2017–2020) found *57.6% of adults* used ≥1 dietary supplement in the past month [14]. An Ipsos 2022 EU survey (14 countries) found 93% of adults had taken supplements in the past year [4]. (Asia-Pacific and other regions show growing use, though comprehensive surveys are scarcer.)

Within supplement users, top choices vary by region:

- **North America (USA):** Multivitamin/mineral supplements are most common (31.5% of adults) [3]. Vitamin D supplement use was about 18–37% depending on age group [15]. Omega-3/fish oil (~12%) and calcium (~7%) came next, followed by smaller shares for vitamin C and others [15] [3]. (For example, among U.S. adults in 2017–2018, multivitamins ranked #1, vitamin D #2, and omega-3 #3 [15].)
- **Europe:** An EU survey found *vitamin D* the single most-reported supplement (46% of respondents in the past year) [16], followed by *vitamin C* (36%) and magnesium (33%) [16]. Multivitamins also remain popular, though exact share wasn't listed. (Probiotics and calcium use are generally lower.)
- **Asia-Pacific:** Data are fragmented. However, Asia-Pacific is the largest regional market by revenue [7], driven by increased supplement use in developing and aging populations. Common supplements likely include multivitamins, vitamin C, calcium (bone health), and, in some countries, vitamin D (for deficiency) – but systematic surveys are limited.
- **Latin America, ME/Africa:** Availability and use vary. Some Latin American countries have rising supplement markets (nutrition plus fortified foods). Middle East countries (e.g. Egypt, Turkey) show strong vitamin D awareness [17]. Africa has high nutritional needs but limited market data.

Overall **user-ranking** by region:
- **NA (USA):** 1st MVM; 2nd Vitamin D; 3rd Omega-3; 4th Calcium or Vitamin C [2]. Vitamin C lags behind in most U.S. surveys (except among younger adults).
- **Europe:** 1st Vitamin D; 2nd Vitamin C; (3rd likely MVM or magnesium). Probiotics/cultural herbs are niche.

- **Asia-Pacific:** Likely 1st Multivitamins; 2nd Vitamin C; (3rd Calcium/Vit D depending on country).
- **Global (aggregate):** Difficult to pinpoint without harmonized data, but multivitamins and vitamin C likely have the most users, with vitamin D somewhere 3rd–4th globally.

Regional Revenue Comparisons

Market research provides some regional sales breakdowns: North America leads, Asia-Pacific grows fastest. For example:

- **North America:** Largest share of global supplements. In 2025, North America accounted for ~33% of vitamin supplement revenue [18] (for example). US omega-3 sales dominate NA [19]. CRN reports 74% of U.S. adults took supplements in 2023 [6]. Vitamin D supplement sales boomed in the U.S. post-2010 [20].
- **Europe:** Smaller market but high per-capita use. Many countries now fortify or subsidize vitamin D (Finland, UK, etc.) [11]. Demand for omega-3 and probiotics is strong in developed EU countries.
- **Asia-Pacific:** The biggest market by volume (~39% of vitamin C market share from Asia in 2023 [21]). Rapid growth in China and India supplements (jointly ~20% CAGR) [22]. Key products include calcium (for osteoporosis risk), vitamin C, and increasingly vitamin D (cultural diets may lack D).
- **Latin America:** Smaller market, but note Brazil/Latin America had >300 new vitamin D products (2005–2010) [23]. Multivitamins and herbal supplements lead local markets.
- **Middle East/Africa:** Limited formal data. Some wealthier Middle Eastern countries (e.g. Saudi Arabia) show high supplement penetration. Africa often relies on fortified staples more than supplements. Vitamin D deficiency is notable in Middle East, boosting supplement interest.

Because market reports often group *vitamins* together, precise regional splits for individual vitamin categories are rare. However, wherever data exist, multivitamins and vitamin D products tend to occupy top ranks by revenue, with regional variations (e.g. Asia has high fish oil demand in Japan).

Guideline and Prescription Presence

Vitamin D stands out in public health guidelines: many countries recommend or mandate it. For example, the US mandates fortification of milk with vitamin D and Finland fortifies milk/margarine [11]. Pediatric and geriatric guidelines often advise vitamin D to prevent rickets/osteoporosis. Pregnant women are frequently advised multivitamins (with D and folic acid). Calcium is recommended for bone health (often with D) in older adults. By contrast, vitamin C is *rarely* recommended in modern guidelines (beyond scurvy prevention) and omega-3 is sometimes mentioned for heart health (e.g. fish oil for high triglycerides), but not universally prescribed. Probiotics appear in some clinical guidelines (e.g. for acute diarrhea or IBS) but are less prominent in population guidelines.

Guideline ranking: Vitamin D and calcium rank high (due to bone-health policies) – often 1st/2nd in dietary guidelines for deficiency risk groups. Multivitamins rank high for pregnancy. Omega-3 and vitamin C appear lower. This suggests vitamin D's prominence in non-market channels, reinforcing its perceived popularity.

Summary Rankings (Vitamin D Position)

We summarize vitamin D's **rank** among key supplements for each metric and region:

- **Units Sold (Volume):** *Data limited.* Multivitamin pills are likely #1 globally. Vitamin D volume is small relative to daily multi and fish-oil doses. Vitamin D is generally *below* top-4 by volume in all regions.
- **Number of Users:** In NA, vitamin D ranks 2nd (after multivitamins) [2]. In Europe, it ranks 1st in usage (as many people take D and C) [16]. In Asia/Latin America/Africa, we lack comprehensive surveys, but D usage is lower, so vitamin D may rank ~3rd–4th (behind multivitamins and vitamin C or other region-specific picks). Overall, vitamin D is typically among the top 3 or 4 supplements in high-income regions, but not the global #1 by users (multivitamins or vitamin C often have more users).
- **Revenue (Retail Sales):** Global revenue ranking (2020s) ~6th–7th. **Not** in the top four. North America and Europe are the largest vitamin D markets by value (due to higher price and awareness) but even there vitamin D sales trail multivitamins and fish oil. For instance, in North America vitamin D sales grew rapidly (2005–2010) [20], but total U.S. DS sales are still dominated by multivitamins and specialty products [2] [6]. In Asia-Pacific, vitamin D is smaller relative to calcium or general vitamins.
- **Guideline Prevalence:** Vitamin D ranks 1st or 2nd (with calcium) for bone-health guidelines globally. Other categories are lower in formal guidelines.

These rankings are visualized below (green indicates vitamin D's position):

- **Global (by revenue):** #7 [6] [5].
- **North America (by usage):** #2 [2].
- **Europe (by usage):** #1–2 [16].
- **Asia-Pacific (by usage):** ~#3 (est.) – behind multivitamins and vitamin C.
- **Latin America/ME/AF:** Insufficient data, but likely behind general multivitamins.

Data Tables

Below are key metrics for each category (global or region as noted). Blank entries denote **data not found** or not directly comparable. **Confidence** is qualitatively noted (High for official surveys/industry data, Medium/Low for estimates or single reports).

Category	*Users (% population)*	*Global Revenue (USD)*	CAGR (past ~5yr)	Data Source (sample)	Confidence/ Notes
Multivitamins	USA: 31.5% (adults) [3] EU: (survey not reported separately)	~$19.4 B (2025) [6]	6.8% (2026–31) [13]	MordorIntelligence (market report) [6]	High (industry figures; US survey)

Category	*Users (% population)*	*Global Revenue (USD)*	CAGR (past ~5yr)	Data Source (sample)	Confidence/ Notes
Vitamin D	USA: 18.5% (adults) [3] EU: 46% (12mo) [16]	~$1.15 B (2021) [5]	~6% (2021–29 est.)	DataBridge Market Research [5] , Ipsos (EU survey) [16]	Medium (market report estimate; surveys)
Vitamin C	USA: (~10%) *(adults, estimate)** EU: 36% (12mo) [16]	~$2.37 B (2025) [10]	4.9% (2025–33) [10]	PrecedenceResearch (market report) [10]	Low–Medium (some uncertainty on definitions of “supplements”)
Omega-3 / Fish Oil	USA: 12% (adults) [15] EU: (not specified)	~$7.68 B (2024) [7]	9.1% (2025–30) [7]	GrandViewResearch (market report) [7]	Medium (industry report)
Probiotics	USA/EU: not reported (specialty use)	~$6.5 B (2023) [8]	8.2% (2024–32) [8]	DataIntelo (market report) [8]	Medium (industry report)
Calcium	USA: ~12% (adults, est.) EU: (not reported)	~$5.75 B (2025) [9]	8.7% (2025–35) [9]	BRI Research (market report) [9]	Low–Medium (mixed sources; U.S. data via trends)

Percent of population taking supplement regularly (year varies by source). *US vitamin C use is highly uncertain: NHANES did not give an overall rate, CDC report suggests ~52% used vitamin C in 2021–23 (dietary sources plus supplements) [24] .

Confidence/Limitations: Survey data (US NHANES, EU Ipsos) are high-quality for usage in those regions, but comparable global data is lacking. Market revenue figures come from market-research firms and may use different definitions (e.g. “supplements” vs. total ingredient sales). Some CAGR projections differ across sources. We note where only limited or dated data exist.

Charts and Trends

Figure: U.S. adult dietary supplement use (%) by age, 2007–2018 [25] . Use of any supplement rose steadily (48.4%→56.1%), reflecting growing consumer interest. This trend was driven largely by increases in multivitamins, vitamin D and omega-3 use [25] .

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timeline
    title Vitamin D Popularity Timeline
    2010 : U.S. sales surged (Oprah effect) [20]
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2018 : #2 supplement by U.S. usage [15]
2022 : EU survey: Vitamin D top supplement (46%) [16]
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This timeline highlights **vitamin D's rise**: Explosive U.S. growth in 2008–09 [20], reaching the #2 spot by ~2017–18 [15], and by 2022 it became the most-reported supplement in Europe [16].

In bar charts (not shown here), multivitamins and "other vitamins" (combined) dwarf individual categories; vitamin D bars are small. Time-series charts of sales (e.g. global supplement market) show strong post-2010 growth, with a brief COVID dip. (Data visualization is constrained by available cited values.)

Conclusion and Confidence

Vitamin D is **undeniably popular as a supplement** — widely used and promoted, and prominent in health guidelines. However, on **quantitative metrics** it is *not* the world's number-one supplement in sales or users: multivitamins and vitamin C/omega-3 products generally exceed it. Vitamin D tends to rank #2–3 in high-consumption regions (USA, Europe) but falls further down globally. Our analysis, based on industry reports and surveys, underscores that *"popularity"* depends on the measure. Users/survey data favor supplements that address perceived dietary gaps (D in low-sun areas, C for immunity), whereas revenue is driven by products with broad daily use (multivitamins, fish oil). We have drawn primarily from market analyses and national surveys [5] [15] [16] [6]. Gaps in data (especially in developing regions) mean some rankings are estimates. We have noted data source and confidence for each metric.

Sources: Market research reports (Mordor, Grand View, DataBridge, etc.), CDC/NHANES and Ipsos surveys, and industry news [5] [2] [16] [6] [8] [11]. These provide the most recent and primary data available on supplement sales and usage. While comprehensive, inconsistencies between sources (definitions, years) limit precision; all figures should be viewed as approximate. Nonetheless, the combined evidence indicates vitamin D is a top supplement, but not the single most consumed globally under all measures.

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