

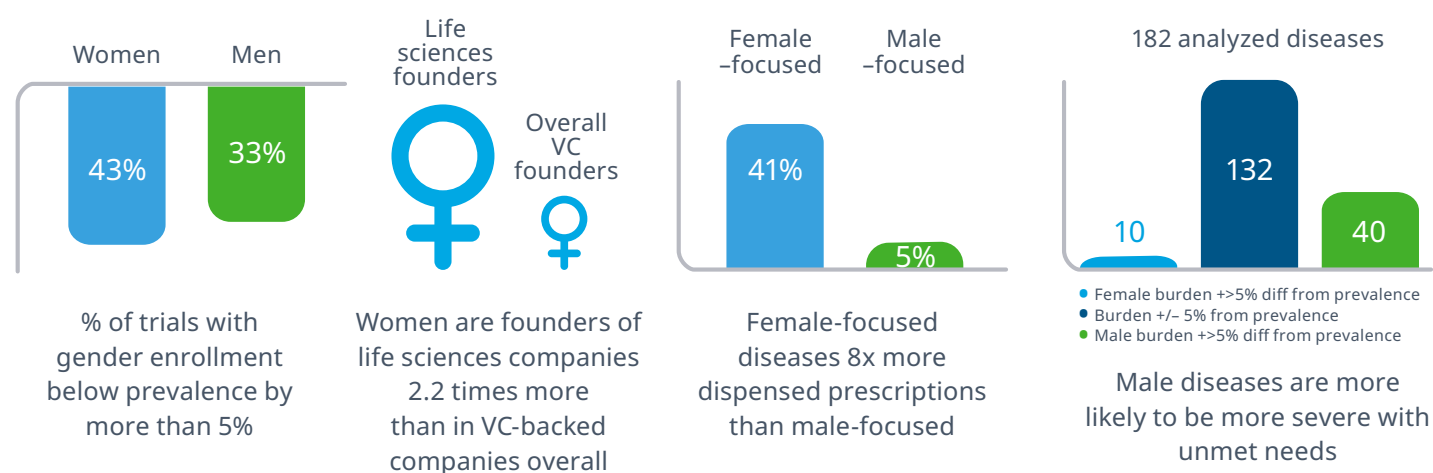
Assessing Sex and Gender Parity in Life Sciences

Progress, Opportunities and Challenges

November 2025

“Assessing sex and gender parity in life sciences is critically important as findings can help to influence the fairness, effectiveness, and inclusivity of the medicines being developed, participation in clinical trials, and the use of medicines available commercially. Both men and women are underrepresented for some diseases, although the predominant pattern highlights more underrepresentation for women.”

- Executive overview
- 5 section synopses
- 3 subject expert authors
- 61 pages
- 45 detailed exhibits



Key research findings

Applying a sex and gender lens to research, medicine use, and investments in life sciences

- While the population is generally split 50/50 between men and women, diseases affect the genders differently, with notable clinically-relevant subpopulation differences in prevalence and disease burden between the genders.
- Segmenting diseases by their epidemiology enables assessment of sex-specific, neutral or mixed, and those with dominance by one sex or the other.
- Across 182 diseases, sex-based share of global disease burden differed by more than 5% from share of global prevalence in 50 cases—10 diseases with higher female burden and 40 with higher male burden than prevalence.

Clinical trial activity, participation, representativeness, and trends

- Both female and male gender-focused diseases are underrepresented in trial participation relative to disease burden and prevalence.
- Female participation below parity by more than 5% in 43% of trials between 2015–2024 compared to 33% for males, despite equal disease prevalence across the sexes.
- Female underrepresentation in oncology trials is widespread—39% of trials had >5% under-enrollment of women, compared to just 25% for men.

Novel active substances (NAS) by sex and gender disease segmentation

- Female-focused (female-dominant and female-semi-dominant) and female-specific novel active substances (NAS) launched in the U.S. accounted for 31% of launches since 2015, compared to 26% male-focused.
- Drugs for female-specific diseases accounted for only 3% of U.S. NAS launches, while male-specific were less than 1%.
- Oncology NAS remain skewed, with 64% targeted male-aligned tumors versus 13% for female-aligned, with most female-focused launches concentrated in breast cancer.

Use of medicines by disease and patient gender

- Female-focused diseases represent 40.9% of dispensed prescriptions compared to 5.4% from male-focused.
- Obesity and mental health skew to female prescriptions, outpacing prevalence, but Alzheimer’s has fewer female prescriptions for the newest medicines.
- Hormone replacement therapy has been under-used for menopause following safety concerns in the early 2000s, usage has increased more recently, and non-hormonal treatments are gaining adoption.

Investment in women’s health and female founders

- Women are life sciences founders or co-founders at more than double the rate of venture-backed companies overall, making significant inroads in leadership roles.
- Investment in women’s health-specific and health-adjacent conditions has been growing but remains relatively modest in terms of overall industry investment

[Click here to review the exhibit titles in all sections](#)

Exhibit titles by section

Applying a sex and gender lens to research, medicine use, and investments in life sciences

Diseases affect the genders differently and understanding of multiple factors is required to assess representativeness

- Exhibit 1: Examples of frames of reference for analysis
- Exhibit 2: Illustration of sex-based disease categories based on share of prevalence
- Exhibit 3: Share of prevalence and global disease burden (DALYs) by sex-based disease categories, 2019
- Exhibit 4: Female share of global disease prevalence by female share of global disease burden, 2019
- Exhibit 5: Disease subpopulation differences related to sex and gender
- Exhibit 6: Illustrative examples of subpopulation complexities in assessing sex-based representativeness
- Exhibit 7: Immunology, cardiovascular and Alzheimer’s disease examples
- Exhibit 8: Immunology and cardiovascular disease examples

Clinical trial activity, participation, representativeness, and trends

Trial trends illustrate that the gender representativeness at disease level and in enrollee levels remain challenging to achieve

- Exhibit 9: Share of prevalence and trial participation by sex-based disease categories, 2015–2024
- Exhibit 10: Total number of trials by sex and gender disease type, including multiple indication trials, results first posted date, 2015–2024
- Exhibit 11: Sex and gender inclusion in trials compared to disease prevalence, results first posted date, 2015–2024
- Exhibit 12: Sex and gender-focused diseases NAS trial participation by U.S. NAS launches compared to disease prevalence, first reporting results, 2015–2024
- Exhibit 13: Trial participation by sex and gender disease type, results first posted date, 2015–2024
- Exhibit 14: Share of population and trial participation by sex and gender, results first posted date, 2015–2024
- Exhibit 15: Oncology sex and gender prevalence and clinical trials by tumor prevalence, results first posted date, 2020–2024
- Exhibit 16: Sex and gender inclusion in oncology Phase II and III trials compared to disease prevalence, results first posted date, 2020–2024
- Exhibit 17: Mental health trials by disease compared to prevalence, first results posted date, 2015–2024
- Exhibit 18: Obesity and overweight trials, results first posted date, 2015–2024
- Exhibit 19: Sex and gender share of Alzheimer’s disease prevalence and trial participation, first results posted date, 2015–2024

[Return to page top](#)

Novel active substances (NAS) by sex and gender disease segmentation

Novel drugs for female-focused diseases outpace male-focused overall, but cancer drugs skew to male-focused tumors more than four to one over female-focused in the last decade

- Exhibit 20: Share of prevalence and number of U.S. NAS launches by sex-based disease categories, 2015–2024
- Exhibit 21: Sex and gender disease type U.S. launches of novel active substances (NAS), 2015–2024
- Exhibit 22: Sex and gender disease U.S. launches of novel active substances (NAS), 2015–2024Exhibit
- Exhibit 23: Gender-neutral disease U.S. launches of novel active substances (NAS), 2015–2024
- Exhibit 24: Non-oncology sex and gender disease U.S. launches of novel active substances (NAS), 2015–2024
- Exhibit 25: Oncology sex and gender specific diseases launches of novel active substances (NAS), 2015–2024
- Exhibit 26: Oncology U.S. launches of novel active substances (NAS), 2015–2024
- Exhibit 27: Tumor launches of novel active substances (NAS) by female share of global disease burden, 2015–2024
- Exhibit 28: U.S. first approvals and subsequent label expansions in female-focused, gender-neutral, and male-focused for novel active substance (NAS) launches, 2015–2024

Use of medicines by disease and patient gender

Women account for a greater share of prescription use across most disease categories, while men appear to be less engaged with healthcare in key areas

- Exhibit 29: Share of prevalence, disease burden, and dispensed prescriptions by sex-based disease categories, 2024
- Exhibit 30: Obesity GLP-1 agonist prescriptions by type and share by gender and age, 2020–2024
- Exhibit 31: Mental health prescriptions indexed to 2019 values and 2024 share of prescriptions and prevalence by age and gender
- Exhibit 32: Innovation in postpartum depression specific treatments, 2019–2024
- Exhibit 33: Illustrative views of Alzheimer’s drug visits, 2019–2024
- Exhibit 34: Alzheimer’s prevalence, trial participation, and diagnosis visits, 2019–2024
- Exhibit 35: Contraception volumes by type, 2019–2024
- Exhibit 36: Number of patient treatment regimens in the U.S., 2019–2024
- Exhibit 37: Share of 3L+ metastatic castration-resistant prostate cancer patients in U.S. treated by therapy, 2019–2024
- Exhibit 38: Menopause diagnosis and treatment types by year, 2019–2024
- Exhibit 39: Pharmacy claim status and persistence for Veezah launched in 2023 in first year after patient first new written prescription

Investment in women’s health and female founders

Women are life sciences founders or co-founders at more than double the rate of venture-backed companies overall, making significant inroads in leadership roles

- Exhibit 40: VC deal capital invested (Mn) for women’s health and adjacent conditions for U.S. and Europe, 2019–2024
- Exhibit 41: VC deal capital invested (Mn) and deal count for U.S. and Europe, 2019–2024
- Exhibit 42: Female (co-)founded VC deal count and capital invested, 2015–2025
- Exhibit 43: Pharmaceutical and biotech deals by company founder type, 2015–2025

Methodology

- Exhibit 44: Share of industry-sponsored, interventional posted and sex and gender reporting trials, results first posted date, 2015–2024
- Exhibit 45: Trials used in analysis, from completed trials to analyzable trials, first results posted date, 2015–2024

[Return to page top](#)

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