

Changes in Frequency, Relevance, and Importance of Pharmacist-reported Job-related Tasks from 2012-2022

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Objective

To characterize changes in tasks performed by pharmacists over the last 10 years through the use of the publicly available Occupational Information Network (O*NET) sponsored by the U.S. Department of Labor.

Methods

O*NET data are collected via standardized surveys directly from a random sample of employees in targeted occupations at businesses and other organizations. We examined the top 20 tasks reported by pharmacists for importance, frequency, and relevance. Frequency was rated from 1 (performed yearly) to 7 (done hourly). We calculated the percent of pharmacists performing each task at least daily (scale 5-7) at three points in time (2012, 2017, and 2022) over 10 years in order to analyze trends.

Results

The top 3 tasks “to review a prescription,” “provide drug information,” and “maintain pharmacy records and patient profiles” have changed minimally in frequency, importance, and relevance in the past 10 years. There was an upward trend in frequency of interprofessional collaborations (10-13% increase), and a downward trend in sterile and non-sterile compounding (7-28% decrease). The task “update or troubleshoot pharmacy information databases” was not in the 2012 O*NET survey but exhibited a 28% increase in the percent of pharmacists performing this task daily between 2017 and 2022.

Conclusions

Over ten years, pharmacists continued to frequently perform the relevant and important tasks that they are uniquely qualified to do, such as prescription review and provision of medication information. Frequency of informatics tasks and interprofessional collaborative activities is increasing, while compounding activities are decreasing. With this data in mind, it is imperative that pharmacy curricula prepare students to meet the needs of the workforce.

Results

Top 20 Pharmacist-Reported Tasks	2022 Frequency Rating	2017 Frequency Rating	2012 Frequency Rating	2012-2022 Frequency Change (%)
Review prescriptions to assure accuracy, to ascertain the needed ingredients, and to evaluate their suitability.	98	99	97	0%
Provide information and advice regarding drug interactions, side effects, dosage, and proper medication storage.	92	97	97	-4%
Maintain records, such as pharmacy files, patient profiles, charge system files, inventories, control records for radioactive nuclei, or registries of poisons, narcotics, or controlled drugs.	92	93	95	-3%
Advise customers on the selection of medication brands, medical equipment, or healthcare supplies.	91	86	90	1%
Order and purchase pharmaceutical supplies, medical supplies, or drugs, maintaining stock and storing and handling it properly.	88	84	80	8%
Work in hospitals or clinics or for Health Management Organizations (HMOs), dispensing prescriptions, serving as a medical team consultant, or specializing in specific drug therapy areas, such as oncology or nuclear pharmacotherapy.	87	77	74	13%
Assess the identity, strength, or purity of medications.	87	78	94	-7%
Analyze prescribing trends to monitor patient compliance and to prevent excessive usage or harmful interactions.	84	72	75	9%
Prepare sterile solutions or infusions for use in surgical procedures, emergency rooms, or patients' homes.	76	70	83	-7%
Contact insurance companies to resolve billing issues.	73	76	N/A	N/A
Manage pharmacy operations, hiring or supervising staff, performing administrative duties, or buying or selling non-pharmaceutical merchandise.	72	86	93	-21%
Update or troubleshoot pharmacy information databases.	62	34	N/A	N/A
Plan, implement, or maintain procedures for mixing, packaging, or labeling pharmaceuticals, according to policy and legal requirements, to ensure quality, security, and proper disposal.	62	86	90	-28%
Collaborate with other health care professionals to plan, monitor, review, or evaluate the quality or effectiveness of drugs or drug regimens, providing advice on drug applications or characteristics.	60	56	49	10%
Provide specialized services to help patients manage conditions, such as diabetes, asthma, smoking cessation, or high blood pressure.	55	52	55	0%
Refer patients to other health professionals or agencies when appropriate.	41	37	29	12%
Compound and dispense medications as prescribed by doctors and dentists, by calculating, weighing, measuring, and mixing ingredients, or oversee these activities.	40	31	56	-15%
Teach pharmacy students serving as interns in preparation for their graduation or licensure.	33	24	20	13%
Assay radiopharmaceuticals, verify rates of disintegration, and calculate the volume required to produce the desired results, to ensure proper dosages.	32	N/A	44	-12%
Offer health promotion or prevention activities, such as training people to use blood pressure devices or diabetes monitors.	19	16	36	-17%
Publish educational information for other pharmacists, doctors, or patients.	7	13	22	-15%