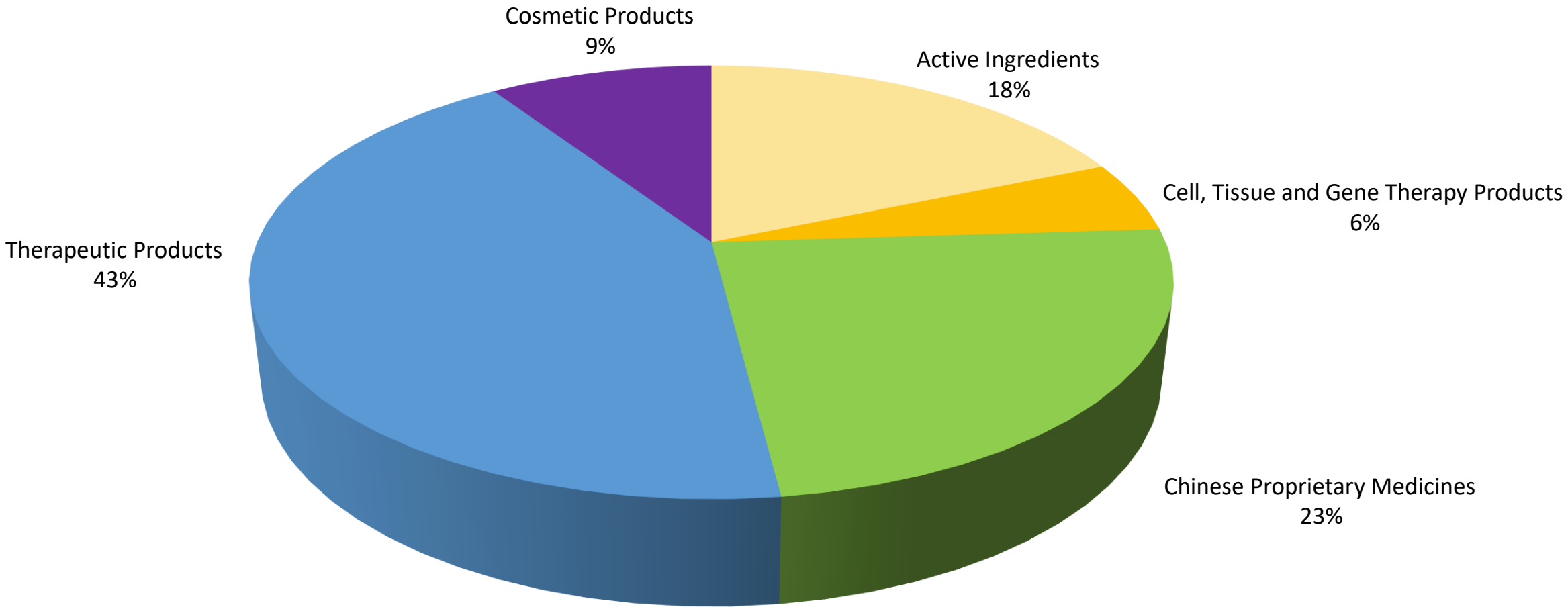
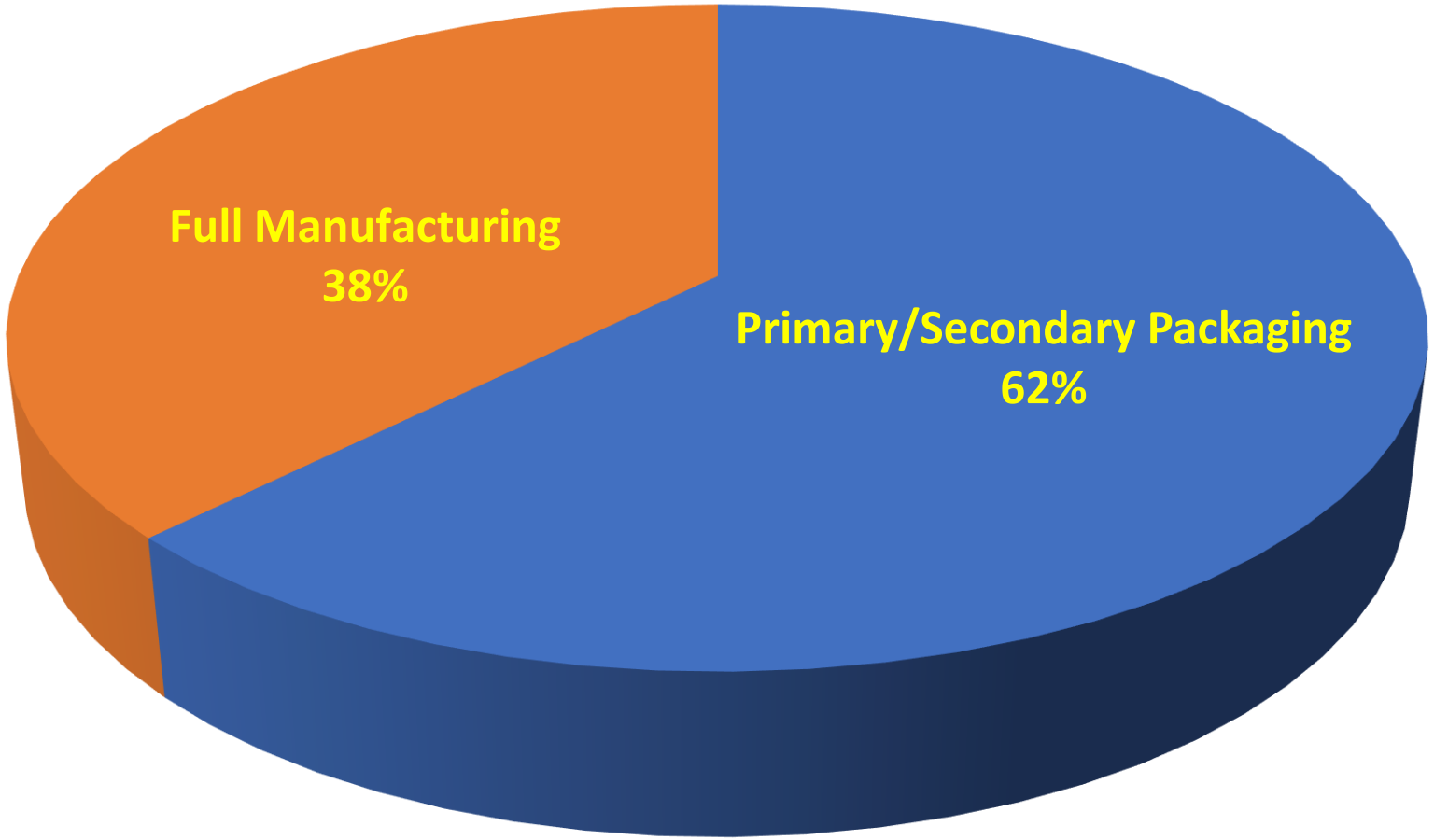
TRENDING OF GOOD MANUFACTURING PRACTICE (GMP) DEFICIENCIES OF MANUFACTURERS 2024

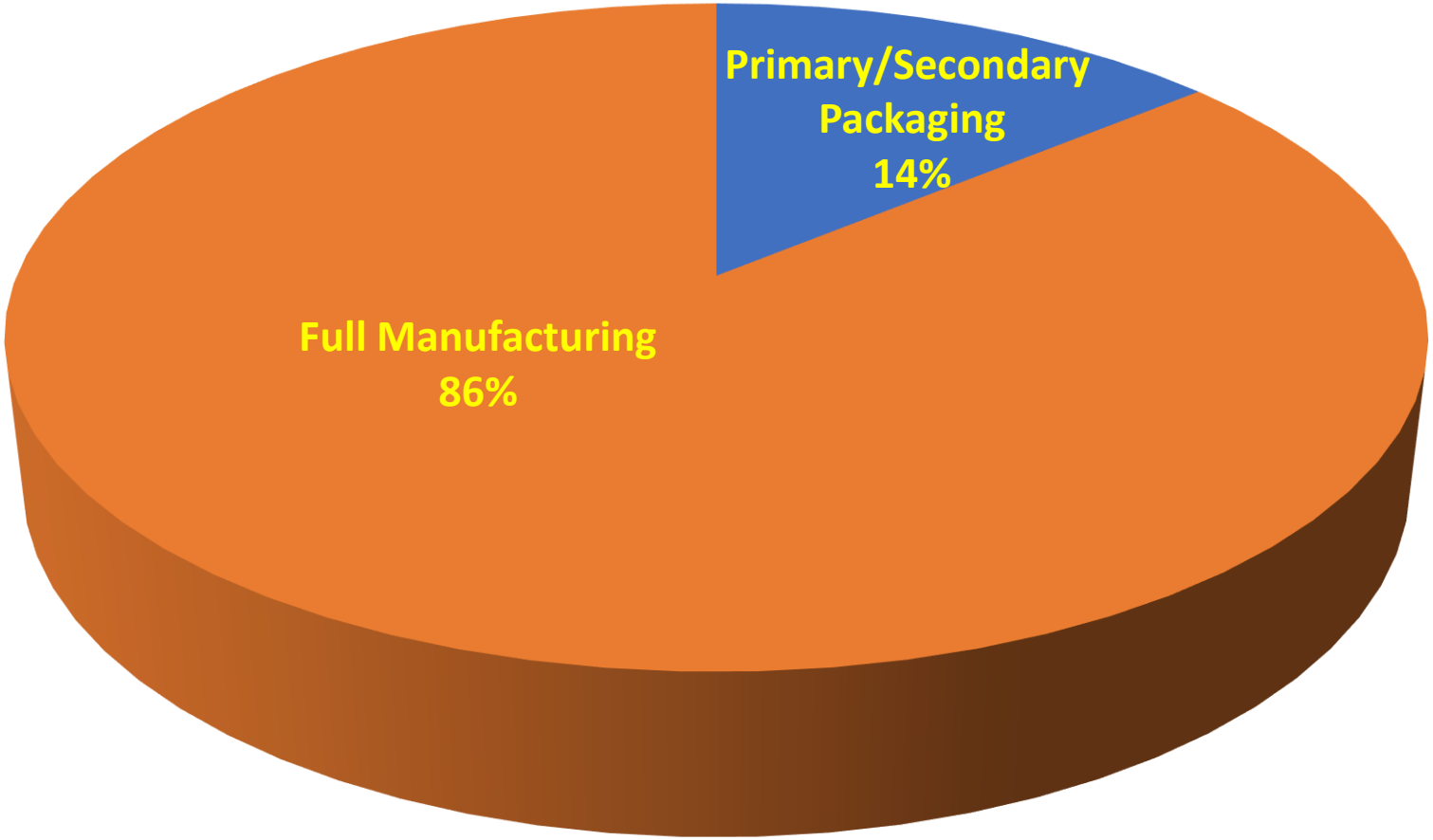
Profile of Manufacturers for Inspections Conducted in Year 2024



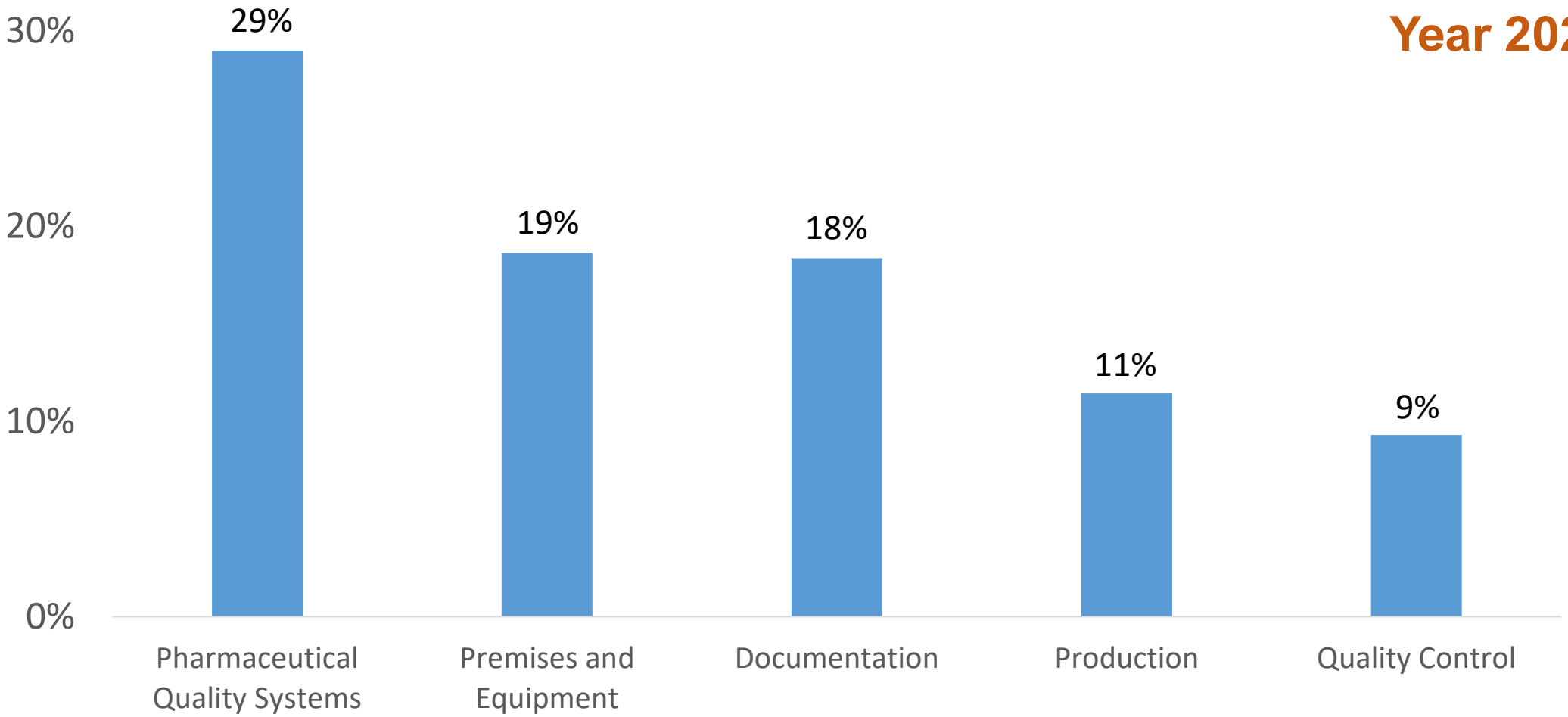
Therapeutic Products Manufacturers Inspected in Year 2024



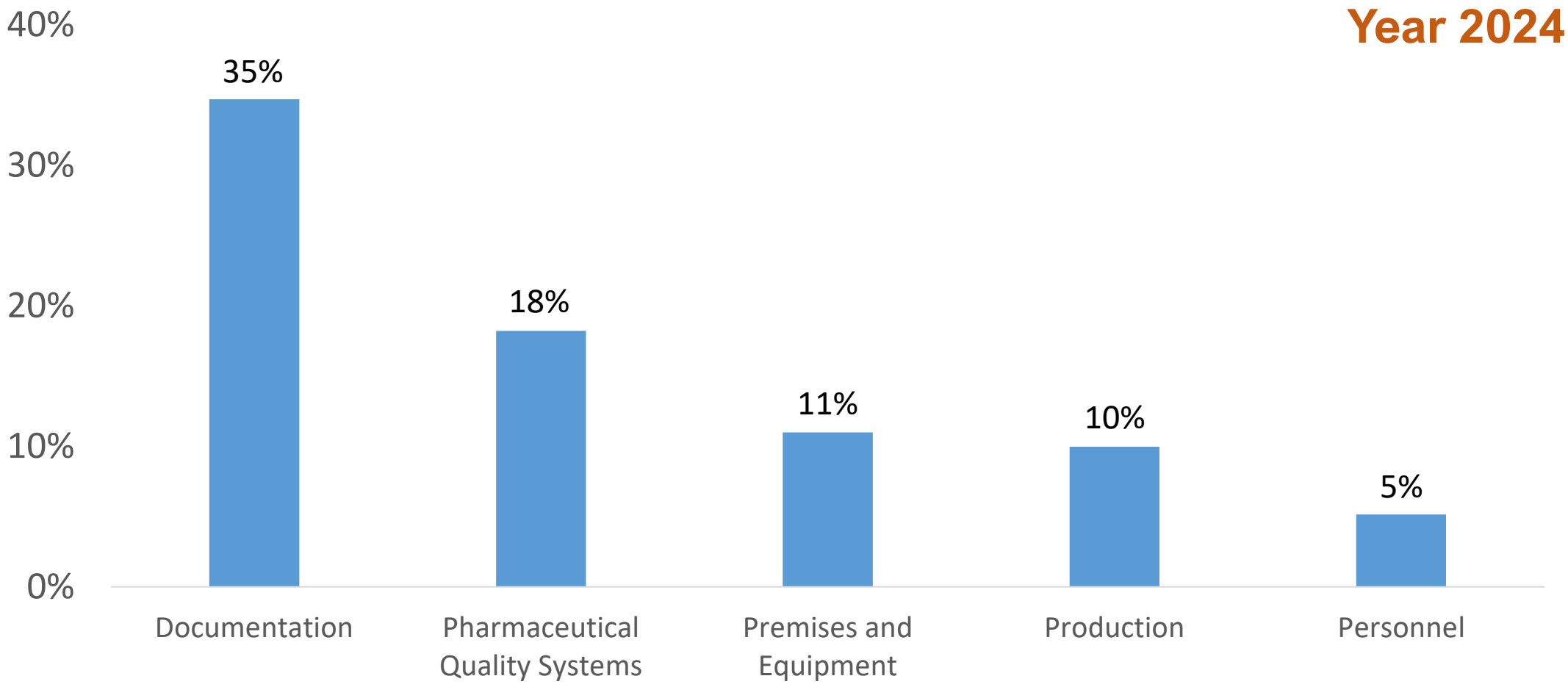
Chinese Proprietary Medicine Manufacturers Inspected in Year 2024



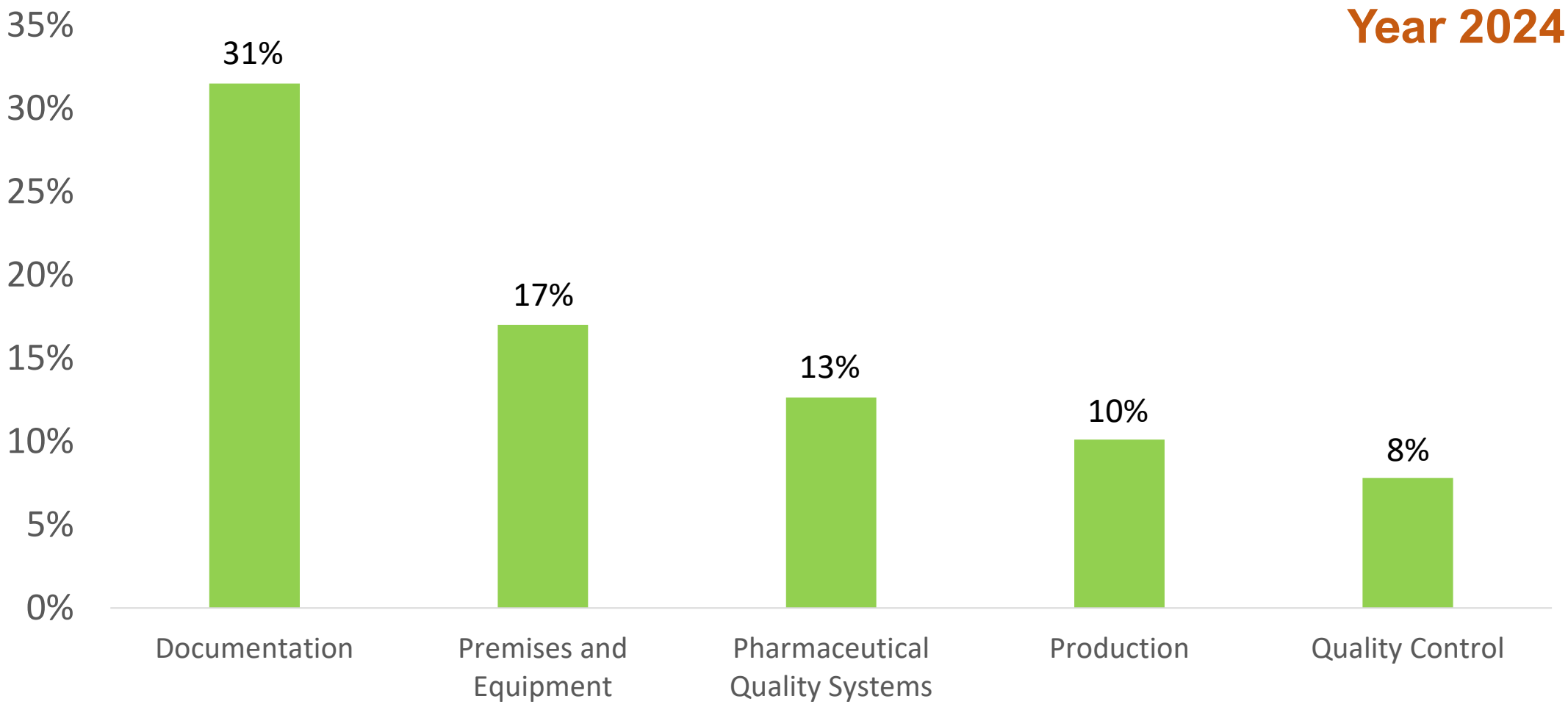
Top 5 GMP Deficiencies for Full Manufacturers of Therapeutic Products



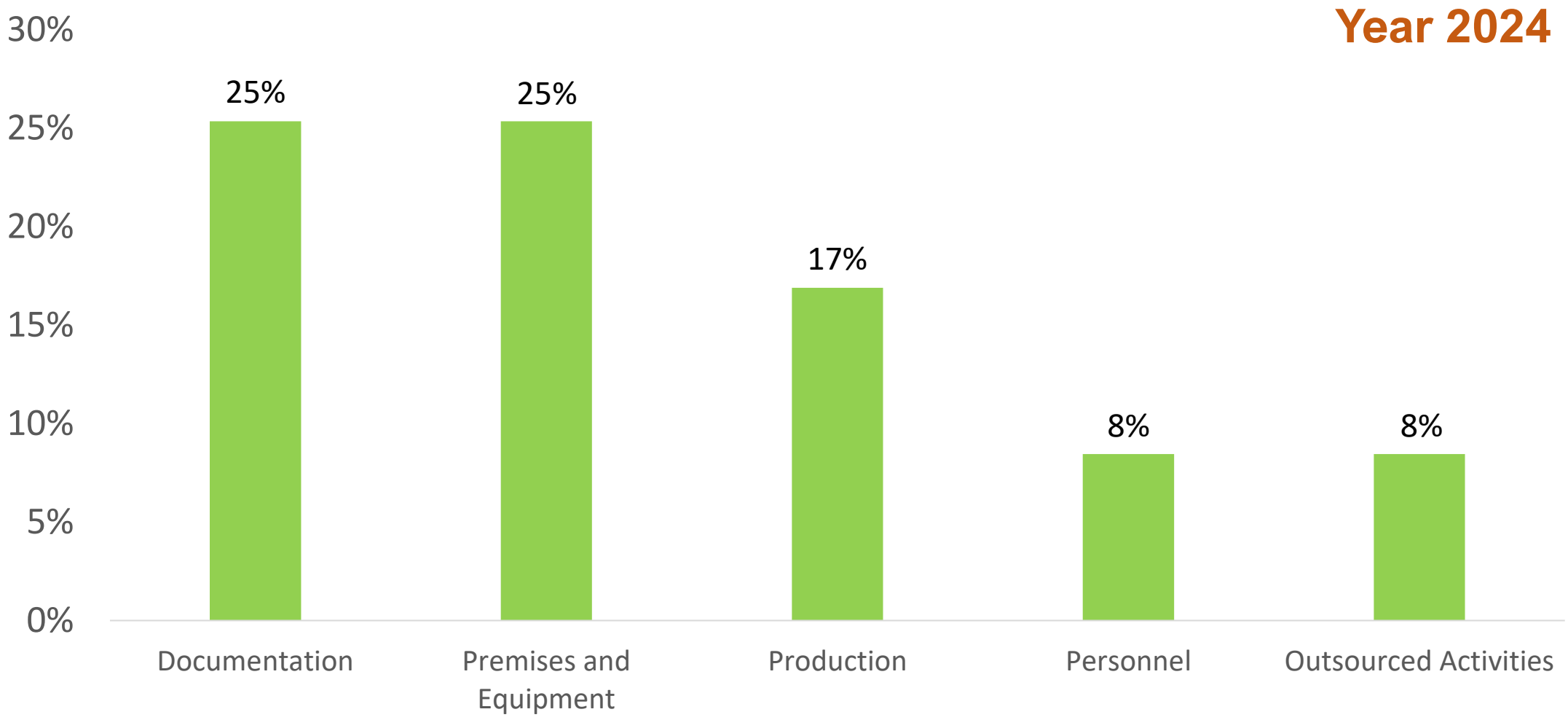
Top 5 GMP Deficiencies for Packagers of Therapeutic Products



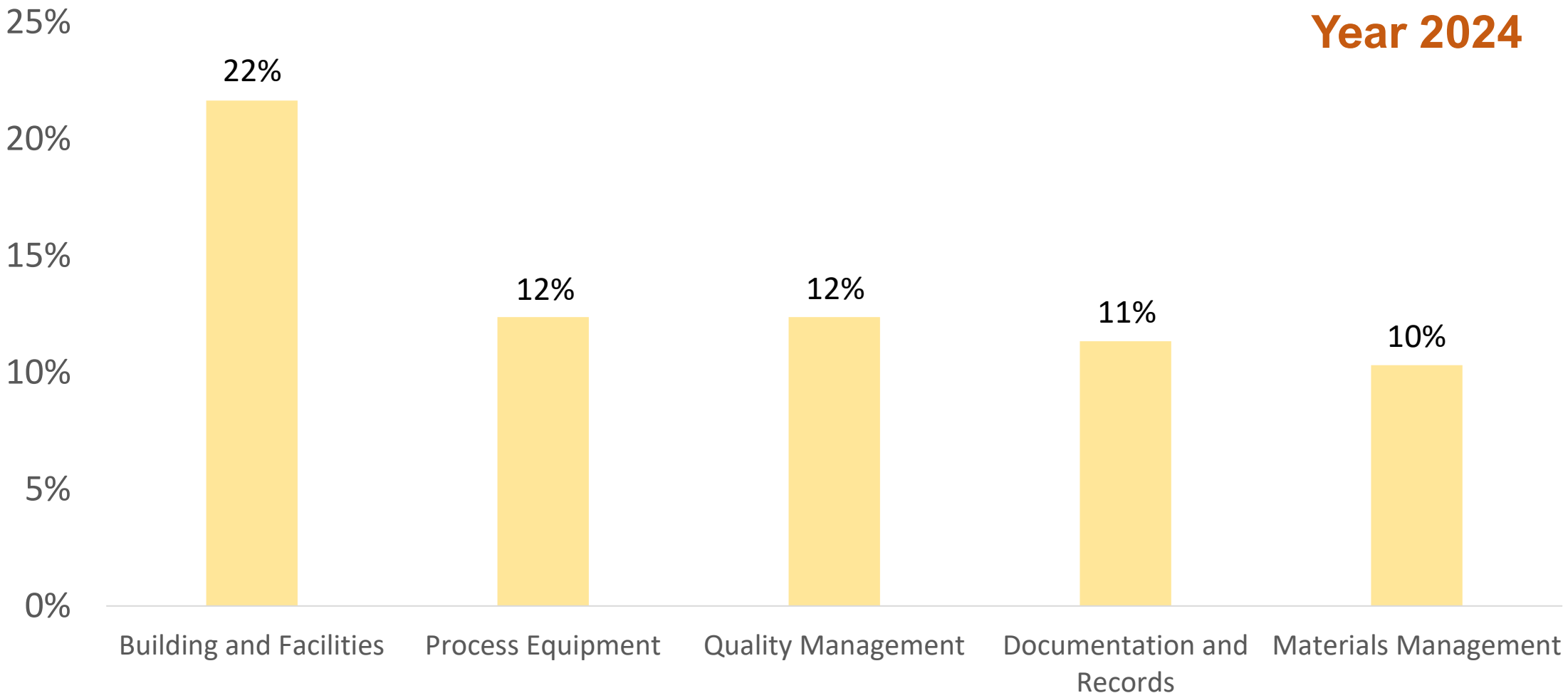
Top 5 GMP Deficiencies for Full Manufacturers of Chinese Proprietary Medicines



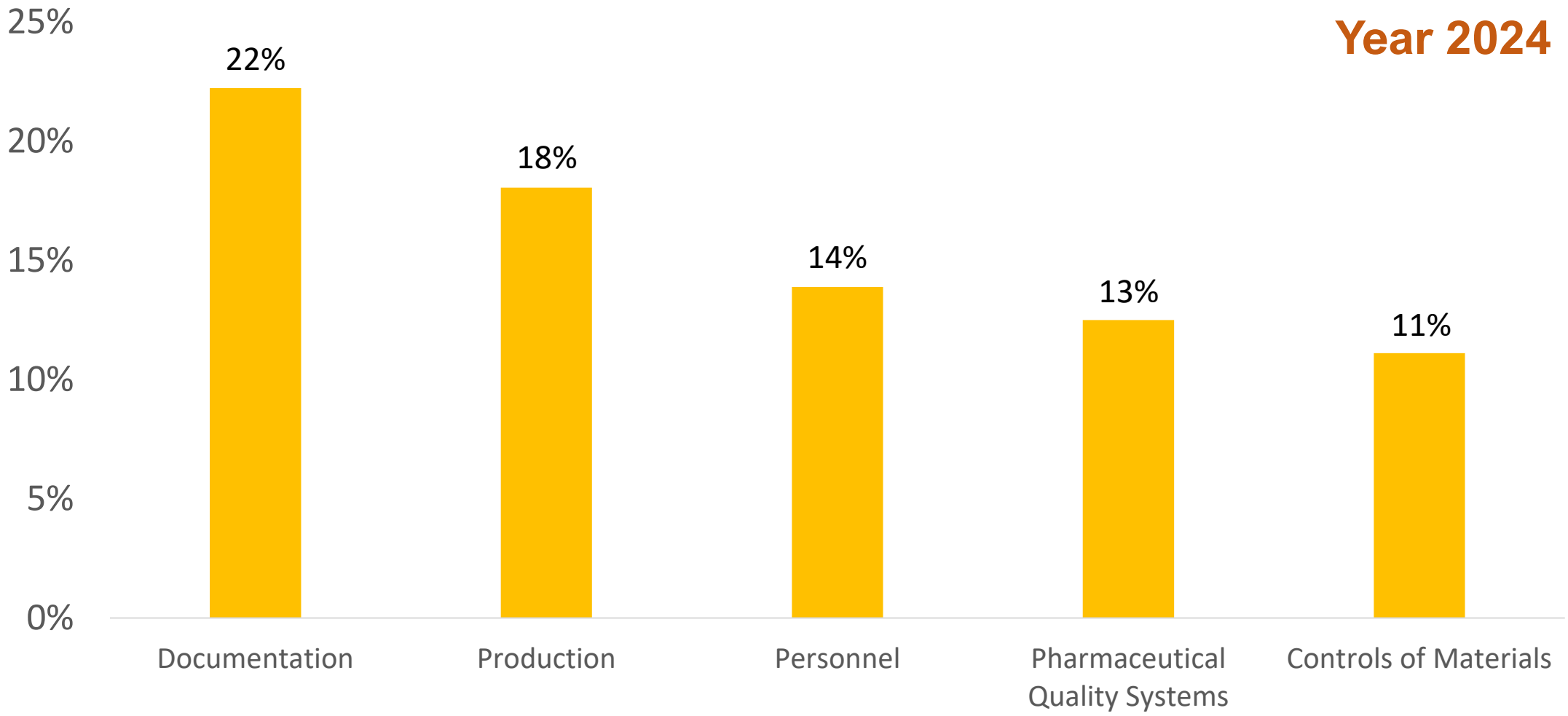
Top 5 GMP Deficiencies for Packagers of Chinese Proprietary Medicines



Top 5 GMP Deficiencies for Manufacturers of Active Ingredients



Top 5 GMP Deficiencies for Manufacturers of Cell, Tissue and Gene Therapy Products



Ranking of Deficiencies for Therapeutic Products Manufacturers (2022 to 2024)

Rank	Category of Deficiencies		
	2022	2023	2024
1	Documentation	Pharmaceutical Quality Systems	Pharmaceutical Quality Systems
2	Premises and Equipment	Documentation	Premises and Equipment
3	Production	Premises and Equipment	Documentation
4	Pharmaceutical Quality Systems	Production	Production
5	Quality Control	Quality Control	Quality Control

Ranking of Deficiencies for Chinese Proprietary Medicines Manufacturers (2022 to 2024)

Rank	Category of Deficiencies		
	2022	2023	2024
1	Documentation	Documentation	Documentation
2	Premises and Equipment	Premises and Equipment	Premises and Equipment
3	Production	Qualification and Validation	Pharmaceutical Quality Systems
4	Pharmaceutical Quality Systems	Production	Production
5	Quality Control	Pharmaceutical Quality Systems	Quality Control

Ranking of Deficiencies for Active Ingredients Manufacturers (2022 to 2024)

Rank	Category of Deficiencies		
	2022	2023	2024
1	Building and Facilities	Building and Facilities	Building and Facilities
2	Process Equipment	Process Equipment	Process Equipment
3	Documentation and Records	Documentation and Records	Quality Management
4	Quality Management	Validation	Documentation and Records
5	Materials Management	-*	Materials Management

*Note: All deficiencies fell within 4 categories.

Ranking of Deficiencies for Cell, Tissue and Gene Therapy Products Manufacturers (2022 to 2024)

Rank	Category of Deficiencies		
	2022	2023	2024
1	Documentation	Documentation	Documentation
2	Premises	Production	Production
3	Pharmaceutical Quality Systems	Premises	Personnel
4	Production	Batch Release	Pharmaceutical Quality Systems
5	Quality Control	Control of Materials	Control of Materials

Common Deficiencies from Inspections Conducted

Area of Deficiencies	Example of Deficiencies
Pharmaceutical Quality System	▪ The change control process lacked risk and impact assessment on the Pharmaceutical Quality System and regulatory requirements. It also failed to confirm whether quality objectives were achieved, ensure no unintended impact, and document follow-up actions post-implementation of the changes. ▪ The release for supply procedure omitted the requirement to check the bacterial endotoxin test results for sterile radiopharmaceuticals. ▪ The release for supply checklist did not document the review of bacterial endotoxin results for each batch. ▪ Two similar batch release procedures had conflicting instructions. ▪ An Authorised Person certified a batch in early September 2024, noting all post-release review items as satisfactory, despite the Grade A filling area contamination investigation was still pending conclusion. ▪ Deviation incident of extraneous particles found in the final product was inappropriately classified as “minor” despite potential quality and safety risk. The proposed CAPA for forensic assessment was not conducted but the deviation incident was closed out without justification. The final disposition of the affected and related bags of product was also not documented.
Quality Control	▪ No system to assess the impact of pharmacopoeia updates on test methods (e.g., USP 38 to USP 40 for XXX Tablets). ▪ Laboratory analysts shared login credentials for the HPLC Software System. ▪ Sampling procedure for incoming materials was inadequate, as only one package was sampled for testing regardless of batch size. ▪ Dissolution test media preparation records were not maintained, and stock bottles lacked expiry date labels. ▪ The laboratory pH meter was calibrated on March 2 and April 6, 2024 as indicated in the equipment logbook, but calibration printouts were missing, with no explanation provided. ▪ Insufficient staffing caused QC personnel to be used for production activities. ▪ No system for assigning and tracking unique QC numbers for incoming batches of starting materials. ▪ No documentation for test requests sent to the external contract testing laboratory. ▪ Retention samples were disposed of before the required retention period of one-year after the expiry of the batch of product.

Common Deficiencies from Inspections Conducted

Area of Deficiencies	Example of Deficiencies
Documentation	▪ Batch Manufacturing Records contained dates in formats that deviated from procedural requirements. ▪ No evidence that procedures were reviewed at the specified frequencies. ▪ QC personnel used a shared password for the analyser software instead of individual logins. ▪ Current and obsolete SOPs were filed together without clear identification of obsolete versions. ▪ The revised equipment status identification tag was used in routine operations in April 2024 before its approved effective date in May 2024. ▪ The Documentation Summary Page lacked page count details, preventing proper batch record reconciliation ▪ The Sample Record Sheet was in loose form and not serialized, risking incomplete record tracking.
Production	▪ Machine settings (granulation, encapsulation, tableting, and sachet packing) adjusted during setup were not recorded in batch manufacturing records. ▪ No incoming check was performed to verify that herbal starting materials were in granule form rather than powder before capsule filling. ▪ No defined In-Process Controls (IPC) for powder mixing process, leaving the mixing completion endpoint unclear. ▪ Aseptic Process Simulation (APS) test was not performed to demonstrate that the manufacturing processes were adequate to prevent contamination during production. ▪ The cell therapy products processing instructions lacked detailed requirements for recording process monitoring parameters at critical steps. ▪ No defined transport and monitoring requirements for the viral vector during transfer. ▪ Clear instructions were not provided in the protocol for proper thawing of the viral vector. ▪ No requirement to capture microscope images of cell cultures before viral transduction. ▪ No guidance on sampling procedures for in-process control and final release testing.

Common Deficiencies from Inspections Conducted

Area of Deficiencies	Example of Deficiencies
Building and Facilities	▪ Peeling paint observed on walls and pillar corners of the sampling room. ▪ Electrical extension plug placed on the floor within the sampling booth, risking dust accumulation. ▪ Incorrect alarm settings for temperature control: HH alarm set at 50°C and H alarm at 25°C, instead of aligning with the 20°C ± 3°C requirement. ▪ Tanks and equipment surfaces in then production area had dust and powder residues; some equipment components and metal structures were rusty. ▪ Powder accumulation observed on overhead fixed piping and supporting beams in the production floor. ▪ Powder residues found on air vents, around the emergency door, and near the electric cupboard in the product filling clean room. ▪ A large (≈3m wide) uncovered opening in the processing room for future expansion posed risks of dirt accumulation and pest harbourage and infestation.
Process Equipment	▪ A cracked centrifuge cover labelled “Out of Service” with a work request number was still used in production without documented impact assessment or approval. ▪ The work instruction for dissolved oxygen analyser calibration specified two methods (“Decade Box” and “Sensor in-air”) but did not clarify when each should be used.
Control of Materials	▪ Incoming material receipt checks did not document the transportation temperature assessment for the viral vector. ▪ No records showing the evaluation of the supplier of the viral vector against established suitability criteria as required in the procedures.

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