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TECHNOLOGY

HEALTH-TECH INNOVATIONS









How has washroom design in healthcare facility evolved over the years?

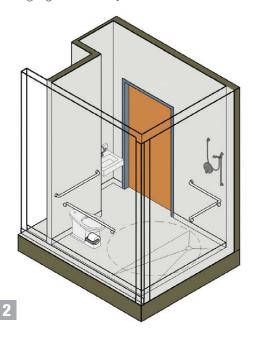
As a healthcare designer, I have seen the aesthetics, safety and patient friendliness changing over the years. Now the wheel chair movement is provided for within a patient restroom. This affects the floor drops and spacing of fixtures. The grab bars in bathing and WC are increasingly used.

The bathroom sizes have shrunk and colours are increasing used on wall surfaces. The washrooms placement in a healthcare facility has moved from edge of building to interiors. The mechanical ventilation has removed the problem of drying and chemical odour of the disinfectant from the facility. Plumbing contractors, materials and works are a lot better today as compared to past.

Earlier, as a sign of expensive specs, coloured fixtures were used. Today everyone uses white fixture. To maintain floor cleanliness, floor-mounted WC use is on the decline and are rarely used. Wall-mounted WC are more preferred.

What are the current trends in washroom design?

As a designer, in the past 16 years I am seeing a greater acceptance of aesthetics





Manu Malhotra, director, RSMS Architects

- **1.** The wheel chair movement is provided for within a patient restroom.
- **2.** A typical patient toilet design.

INFRASTRUCTURE

as a major driver. The owners do not mind spending on quality of sanitary fixtures and CP fittings even though they are expensive. The use of mirrors, vinyl sticker, stalls are changing the aesthetics.





Washrooms are rapidly changing, they are no longer required to be placed at the edge of building lines, the mechanical ventilation allows them to be flexibly placed in any interior space of the building.

In the past five years, I am seeing a greater need of water conserving fixtures and better looking fixtures. Patient safety is a big driver and hence there is the need of creating spaces within the rest rooms which are dry areas rather than wet areas

How different is the design in India vis-àvis the west?

The most noticea.ble change that is visible is the provision of sunken slab in the washroom. Till the last decade, we all were used to designing an infrastructure that had to be housed over the slab in the sunken portion. But in the west the way due to the slab being constructed with concrete over metal deck does not provide for this sunken portion and the infrastructure is below the slab. This is the fundamental difference in design.

Toilet fixtures:

- ◆ The biggest difference in restrooms begins with an understanding of differences in the habits and build of the people. The heavy set westerns and the obesity prevalent in the west require the restrooms much larger than what Indians need
- ◆ In the past decade, due to the physical feature of westerners, and due to liability issues, the architects are required to plan more of floor mounted WC instead of wall mounted WC.
- ◆ The other noticeable difference is the need of ablution tap. This also affects the choice of floor finishes. I have noticed more use of stone-based floor finishes in the west, while in India.
- ◆ In the west, I see more touch-free fixtures, a trend that is slowly catching up in India.
- ◆ The trend of using waterless urinals is also picking up in India..
- ◆ The west extensively uses paper hand

- towels, the dispensers and disposal fixtures which are missing in patient toilets.
- Hand dryers and other restroom amenities have started emerging in Indian public restrooms. Shutoff they are yet to pick up on patient toilets within healthcare facilities.

Other Issues

- ◆ The aesthetics in public restroom is fast changing in India. The use of vinyl visuals at restroom entries is fast replacing the stones and tile facades. Lacquered coloured glass is coming into visibility much more these days.
- ◆ The line of sight from corridor to the restroom is much more recognised in Indian restrooms.
- The pay public toilets in India are not automated as they happen in the west. They are manned by individuals. The space to accommodate them is a new feature that is appearing in Indian designs.
- ◆ The placement of drain in the washbasin is one noticeable features in western public restrooms. This is, however, not followed in Indian designs, In this dry area, we prefer mopping.
- ◆ The cleaning chemicals are changing due to greater use of fixtures that cannot handle the harsh chemicals.
- Counter-top washbasin instead of standalone ones and counter sunk washbasin are also emerging. This changes the washbasin counter height and vanity design.

What are the features to be kept in mind while keeping in mind safety of patients?

We need to look into grab bars in bathing and WC, almost negligible floor drops, counter-based washbasins provide support to patient while usage, use of anti-skid floor tiles of grade varying from R-11 to R-13, emergency alarm call system and externally opening doors in patient toilet allow access in event of patient collapse while using the toilet., Further we need to plan the toilets to have adequate space which not only ac-



count for obese accommodation, accessibility over wheelchair but also can allocate at least two assistants in emergency situations where staff members are required to enter the bathroom to rescue a patient.

Please predict some upcoming trends in washroom designs.

In terms of infrastructure design, more use of recycled water would change the way we design the washrooms. The separate pipe would mean an additional pipe to be accommodated. The reduction in sunken slabs usage also changes the approach and water seepage. In terms of aesthetics and features we must go for low water fixtures, touch free fixtures, bright and dry and odourless welcoming toilets would be widely seen. In terms of user amenities, more fixtures would start appearing (automated hand dryers, soap dispensers, disposable paper seat covers). Stalls would be more visible instead of completed enclosed toilets and sensor-based fixtures that simulate natural light would soon replace the lighting needs during daytime. III

- **3.** Wall- mounted WCs are preferred.
- **4.** Counter-top washbasins are emerging.
- **5.** The use of vinyl visuals at restroom entries is fast replacing the stones and tile facades.