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Re-Standardization Makassar Healthy City based on Local Needs

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ABSTRACT

This study aimed to develop Makassar Healthy City standards and indicators based on local needs, including key indicators, general indicators and specific indicators according to the settings choices. Through in-depth interviews and focus group discussions, this study found that general indicators only change indicators regarding the level of awards, from national and international awards to provincial, national and international awards. Furthermore, the main indicators still refer to national policies. Seven of nine settings were identified in Makassar City based on local needs. There are changes or additions to indicators in almost all settings. Re-standardization of healthy districts/cities should be carried out in all districts/cities based on the local conditions.

Keywords: Re-standardization, Healthy Cities, Local Needs

INTRODUCTION

The Healthy Cities movement in Indonesia has long been carried out, even though it was officially effective since the publication of the Joint Regulation between the Ministry of Home Affairs and Health ^{1,2}. Adipura and Healthy Cities are different but the goal of Adipura can strengthen the Healthy Cities goal ³. Indonesia has a Healthy Cities concept that is different from other countries ^{4,5}. Although Healthy Cities in Indonesia has been running for more than a decade ^{4,6}, the environmental and social health problems are the still main problem in urban areas, but the districts/cities receive the Healthy Cities award from the central government, how is the Healthy Cities really in Indonesia? How does the central government assess and determine the indicators used? The central government can set national indicators and standards, but it can be different from local governments because they have different needs, resources, capacities and even values and cultures so that different solutions can occur ⁷.

Several previous studies relating to Healthy Cities in Indonesia have been conducted ^{1,3,6}, but specific research especially studying the Healthy Cities indicator used is rarely done. This study aimed to develop Makassar Healthy City standards and indicators based on local needs, including key, general and specific indicators according to the settings choices.

MATERIALS AND METHOD

This study was carried out in Makassar City, namely at Regional Planning and Development Board (Bappeda), Health Office, Tourism Office, Social Service, Food Security Service, Sanitation Office, City Planning Office, Healthy City Trustees and Healthy City Forum. Data to be collected consists of primary data and secondary data. Primary data was collected through depth interviews, observations and Focus Group Discussion (FGD). In-depth interviews were conducted with heads of agencies related to healthy cities structures such as Bappeda, Health Office, Tourism Office, Social Service, Food Security Service, Cleanliness Office, Healthy City Trustees and Healthy City Forum. This study used a qualitative research method with a case study approach where qualitative researchers conducted face to face interactions throughout the study ⁸. The variables or concepts in this study referred to the main indicators,

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general indicators and specific indicators of Makassar Healthy City. Special Healthy City indicators refer to the settings of healthy districts/cities in Indonesia and can be developed based on local needs. Data analysis was conducted qualitatively with thematic analysis.

RESULTS

Seven of nine healthy city settings have been identified for Makassar City, namely:

a. Healthy settlements, public facilities and infrastructure

1. A clean air program
2. Appeal for the use of low-sulfur fuel and energy efficiency, through circulars, decrees, billboards, or leaflets.
3. Regulations governing non-smoking area
4. Incidence pneumonia
5. Frequency carry out an ambient air quality test for a moment
6. Implementation of clean air programs through 5 movements: 1 billion trees, car free days, areas without smoking, cycling and walking facilities
7. Use of environmentally friendly alternative energy: solar cells, methane
8. The air quality index category
9. The existence of monitoring activities for chimney emissions in industrial activities
10. The existence of motor vehicle emission testing activities
11. River management policy
12. River cleanliness conditions
13. Riverbank conditions
14. Carry out river monitoring
15. Water Quality Index Value
16. Community involvement in river management
17. Carry out conservation activities around the river banks
18. Clean water service coverage
19. Coverage of drinking water quality
20. Drinking Water Access Coverage
21. Percentage of population using healthy latrines 64%
22. Stop Defecation Village

23. The efforts of the Regional Government to encourage people not to open defecation

24. Drainage Planning Noting the Eco-Drain Concept

25. Local Government Program in encouraging Community Participation in the construction of drainage

26. The active role of the community reports the existence of inundation

27. Public & Private Engagement in Maintenance of Drainage Systems

28. The functioning of the drainage canal

29. Community involvement in the process of maintaining drainage

30. Services and public access to waste water infrastructure and facilities

31. Domestic Waste Water Treatment Plant

32. Quality Test of Communal IPAL Waste Water Effluent

33. Availability of Fecal Treatment Plant

34. Stool trucks operate into the Fecal Treatment Plant

35. General environmental conditions in residential environments

36. Waste handling includes activities

37. Implementation Waste management with the 3R principles

38. Final processing sites Waste does not pollute the environment

39. Management of methane gas in landfill

40. Length of garbage collection at TPS

41. Aides larva numbers in settlements

42. PSN and Routine Work

43. Incidence) of filariasis cases

44. Housing / settlement Free of floods

45. Number of healthy houses

46. Incidence / case of pulmonary tuberculosis

47. Outbreaks of diarrheal diseases

48. Outbreaks of DHF

49. Outbreaks of Malaria

50. Number of villages that have health service facilities

51. Percentage of posts in the regency in accordance

with the number of health centre

52. The number of active alert villages
 53. Health centre with Sanitation Clinic services
 54. Tree planting program for the community
 55. Available parks and urban forests
 56. Percentage of schools implementing healthy schools (UKS)
 57. Percentage of schools that take part in the “Adiwiyata program”
 58. Availability of Healthy Canteen
 59. Availability of adequate toilets (separate between men and women)
 60. Availability of places of worship in schools
 61. “Saptapesona School “security, order, cleanliness, beauty, and hospitality
 62. Availability of segregated bins
 63. Waste Management in schools
 64. Available public facilities (sports and play)
 65. Market management policy program
 66. Supervision regarding market management
 67. Market community involvement in participating in market sanitation
 68. Clean urban market environment
 69. Enough toilets and meet the requirements on the market
 70. Parking lots available in urban markets
 71. Available play facilities for children
 72. The arrangement of informal traders
 73. Regulations on handling street vendors
 74. Availability of Healthy Canteen
 75. Availability of adequate toilets (separate men and women)
 76. Availability of disaggregated bins
 77. Waste management in traditional markets
 78. Availability of places of worship
- b. Traffic Order Zone and Transportation services
1. Car free day area
 2. Clean, orderly and neat terminal conditions
 3. Public facilities in the terminal

4. Availability of traffic signs
 5. Special facilities for nursing mothers at the terminal
 6. Crime in the terminal decreases
 7. Availability of smoking ban in the terminal area
 8. Availability of smoking ban on the vehicle
 9. Examination of the feasibility of public transport vehicles
 10. The number of traffic accidents decreases
 11. The existence of suitable pedestrian facilities
 12. Non-smoking public transport vehicles
 13. A routine health inspection program for public transport drivers
 14. Availability of bus stops that meet the requirements
 15. Availability of an orderly traffic area
 16. Availability of a workshop to monitor exhaust emissions
 17. Availability of a smart driving training program for the driver
 18. The awarding of exemplary public vehicle crew training awards
 19. Giving an award of obedience to the driver
- c. Healthy industries and offices
1. Locations specifically for industrial zones
 2. A smoking ban in the office environment
 3. Places of worship in offices
 4. Special arrangements for the informal sector
 5. Health insurance for workers in all industries
 6. The presence of industrial waste pollutes the environment
 7. Community complaints about cases of industrial pollution
 8. Decreasing work accident rates
 9. Decreased unemployment
 10. Availability of training activities in the vocational training center
 11. Implementation of Environmental Management
 12. Special room for nursing mothers
 13. Enough Toilets (separate Men and Women)

14. Availability of Parking Lots
15. Availability of Healthy Canteen
16. Maintain cleanliness
17. Availability of first aid
18. Availability of Green Open Space
19. Availability of disaggregated bins
- d. Healthy Tourism
 1. Availability of tourist information in public places
 2. Information on health facilities for tourists at the location
 3. The entire hotel is worthy of health
 4. Availability of healthy restaurants
 5. Increasing number of tourists per year
 6. Tourists have been insured
 7. Food poisoning in tourists for the past year
 8. Decreased cases of accidents in tourism objects
 9. Transportation available in tourist areas
 10. Emergency response/safety hall in tourist area
 11. Public facilities available
 12. Waste disposal facilities available
 13. Clinic/first aid facilities available
 14. Telecommunication facilities available
 15. Souvenir facilities available
 16. Worship facilities available
 17. The presence of tourism police
 18. Smoke-free zone
 19. Availability of Parking Lots
- e. Food Security and Nutrition
 1. Increased food crop production
 2. Food Production Supervision
 3. Food Diversity
 4. Food Processing Monitoring
 5. Cases of malnutrition
 6. Availability of food reserves and storage
 7. Food availability
 8. Cases of pesticide poisoning on farmers
 9. An extension of integrated pest control and use of pesticides
 10. The functioning of food distribution institutions
- in the community
 11. Food Distribution Monitoring
 12. The existence of organic farming programs by the government and the community
 - f. Healthy-Independent Community Life
 1. The existence of a regular sports movement in the community/office
 2. Decreased cases of drug use
 3. The existence of community groups for drug and HIV/AIDS prevention
 4. Availability of community compliance not to smoke in public places
 5. Availability of an anti-smoking movement
 6. Coverage of clean water services
 7. Availability of a routine inspection of the quality of clean water
 8. Increased quality of clean water
 9. Healthy food, restaurant Food Management Place services
 10. Government program on healthy home improvement
 11. Increased coverage of the use of health services
 12. Availability of youth counseling service facilities
 13. Availability of a routine health check on school children
 14. Childbirth assistance by trained personnel
 15. Availability of mental health services at health centers
 16. A functioning sanitation clinic service
 17. Availability of an anti-alcohol movement by the community
 18. The existence of an anti-drug movement by the community
 19. Availability of is a special drug prevention service
 20. Decreased drug use cases
 21. Increased immunization coverage
 22. The functioning of an active Posyandu
 23. Coverage of visits to health centre
 24. PSN movement in schools, households, public spaces

25. Free aides larvae at school, household and public spaces
 26. The existence of community movement in preventing degenerative diseases
 27. Information on risk and efforts to prevent degenerative diseases
 28. The existence of community groups in overcoming nutritional problems
 29. Increased Protein Energy Deficiency for pregnant women
 30. Cases of pregnant women who are anemic and lack iodine
 31. Decreased people lack of vitamins
 32. Decreased weight of low birth baby
 33. Increased awareness of nutrition families
 34. Number of health centre that provide basic services for the poor
 35. The existence of health insurance for the community
- g. Healthy Social Life
1. Decreasing poverty rate (4% -6%)
 2. The existence of beggars and homeless people in public facilities
 3. Decreasing number of drug users
 4. The decline in the number of prostitutes
 5. Availability of a halfway house for street children
 6. The existence of informal workers
 7. The existence of children's creativity development and elderly productivity
 8. The existence of an education program dealing with disability
 9. Availability of facilities for people with disabilities in public places
 10. Regional government policy on handling communities in remote areas
 11. Public transportation facilities to remote areas
 12. Health facilities in remote areas
 13. Adequate Child Care Facilities
 14. Special programs for abandoned, elderly
 15. Disaster preparedness program for the community

16. Incidents of riots/anarchists
17. Having a contingency plan for a disaster problem
18. Availability of facilities for disabled people
19. Availability of street children control program

DISCUSSION

Environmental infrastructure facilities are places used by the general public to function properly. Specific indicators of the settlement area arrangement of healthy facilities and infrastructure nationally are 59 assessments while based on the results of FGD 78 special indicators are obtained. This environmental aspect is very important because it is a determinant of public health status⁹⁻¹¹.

Additional indicators of this setting include monitoring activities for chimney emissions in industrial activities, motor vehicle emission testing activities, access to drinking water. Other indicators include the availability of healthy canteens in schools, the availability of places of worship in schools, waste management in schools, availability of play facilities for children in traditional markets, availability of healthy canteens in traditional markets.

Indicators of the setting area of traffic and transportation services, nationally, there are 16 indicators of assessment while based on local needs there are additions to 19 indicators. These additional indicators are the availability of traffic signs, the existence of smoking bans on vehicles and the existence of a rider compliance award. The problem of transportation and traffic congestion is a big issue, especially in large cities^{12,13}. The impact is quite complex on health both from the social aspect and the incidence of disease¹⁴. Furthermore, there are 11 indicators for industrial estate and office buildings, while based on in-depth interviews there are changes to 19 assessment indicators. The additional indicators include the availability of separate toilets between men and women, and availability of parking spaces, availability of healthy canteens.

Specific indicators of the setting of healthy tourism, nationally, there are 13 assessments, while based on focus group discussion there are 19 indicators. The indicators are available telecommunications facilities, available souvenir facilities, available facilities for places of worship and the availability of parking spaces. Healthy tourism is one indicator of healthy cities set globally^{15,16}.

Specific indicators of the setting of food and nutrition security, nationally, there are 8 indicators while based on in-depth studies identified 12 indicators, namely: the supervision of food production and processing, and the existence of a variety of foods.

Specific indicators, the setting of healthy-independent communities independent, nationally, there are 38 indicators of assessment, while based on the study there are only 35 indicators. Some indicators are not valid in the Makassar City, such as the presence of new cretin patients; this is because cases of cretin patients have not been found in Makassar City. Finally, the indicators for a healthy social life, nationally, there are 17 indicators of assessment while based on local needs there are 19 indicators. The indicators include the existence of facilities for disabled people, and the existence of a street children control program. One of the biggest problems in implementing healthy cities is social problems^{17,18}.

CONCLUSION AND RECOMMENDATION

This study found that the main indicators still refer to national policies. Seven of nine settings have been identified for Makassar Healthy Cities. There are changes or additions to indicators in almost all settings. This study recommends that the standardization of healthy districts/cities should be carried out in all districts/cities based on the local needs.

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Ethical Clearance: Taken

REFERENCES

1. Palutturi S, Chu C, Moon JY, Nam EW. A Comparative Study on Healthy City Capacity Mapping: Indonesia and Korea. *The Social Sciences*. 2015;10(6):848-854.
2. MOHA & MOH. The guideline of healthy districts/cities implementation (Joint Regulation Between the Ministry of Home Affairs and the Ministry of Health) Number: 34/2005 and Number: 1138/MOH/PB/VIII/2005. Jakarta, Indonesia: Healthy Cities Advisory Team; 2005.
3. Palutturi S, Rutherford S, Davey P, Chu C. Comparison Between Healthy Cities and Adipura in Indonesia. *Malaysian Journal of Medicine and Health Sciences*. 2013;9(1):35-43.
4. MOH. The Guide of Healthy District/City Implementation (Joint Regulation between The Ministry of Home Affairs and the Ministry of Health) In: The Ministry of Home Affairs and the Ministry of Health, ed. Jakarta: Advisory Team of the Healthy District/City at Central Level.; 2005.
5. Palutturi S. Healthy Cities: Global Concepts, Local Implementation for Indonesia. Yogyakarta: Pustaka Pelajar; 2018.
6. Palutturi S, Zulkifli A, Syam A, et al. The Key Challenges and Recommendations for Healthy Cities Implementation of North Kolaka, Indonesia. *Indian Journal of Public Health Research & Development*. 2017;8(2).
7. Werna E, Harpham T. The implementation of the healthy cities project in developing countries: lessons from Chittagong. *Habitat International*. 1996;20(2):221-228.
8. Creswell JW. *Research Design: Qualitative, Quantitative and Mixed Approach*. Yogyakarta: Pustaka Pelajar; 2013.
9. Mirowsky J. *Education, social status, and health*: Routledge; 2017.
10. Bard D. Health and environment, prevention or precaution? *Soins; la revue de reference infirmiere*. 2018;63(823):24-27.
11. Roychoudhury N, Dasgupta A, Roy K, Bandyopadhyay L, Mandal S, Paul B. HEALTH STATUS OF FIELD LEVEL FEMALE HEALTH PERSONNEL: STUDY IN A RURAL AREA OF WEST BENGAL. *INDIAN JOURNAL OF APPLIED RESEARCH*. 2018;8(6).
12. Kimura N, Yanagisawa K. Traffic jam hypothesis: Relationship between endocytic dysfunction and Alzheimer's disease. *Neurochemistry international*. 2017.
13. Sylla FK, Faye A, Fall M, Anta T-D. Air Pollution Related to Traffic and Chronic Respiratory Diseases (Asthma and COPD) in Africa. *Health*. 2017;9(10):1378.
14. Sørensen M, Pershagen G. Transportation noise linked to cardiovascular disease independent from air pollution. *European Heart Journal*. 2018.
15. Hancock T, Norris T, Lacombe R, Perkins F.

- Healthy Cities and Communities: The North American Experience. *Healthy Cities*: Springer; 2017:215-240.
16. Tsouros AD. Healthy cities: A political project designed to change how cities understand and deal with health. *Healthy Cities*: Springer; 2017:489-504.
 17. De Leeuw E, Simos J. *Healthy Cities: The theory, policy, and practice of value-based urban planning*: Springer; 2017.
 18. Spector M, Kitsuse JI. *Constructing social problems*: Routledge; 2017.