Environmental Determinants of Physical Activity in Parks

BRAT - Direct Observation Reference Manual

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Ariane L. Bedimo-Rung, PhD, MPH
Associate Professor, Epidemiology Program
LSU School of Public Health
New Orleans, LA
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DETAILED INFORMATION ABOUT EACH ITEM

Form: Administrative
(Complete at beginning of observation period)

<table>
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<td>00-0-01</td>
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Date of Observation: 00-0-04

00-0-07 What is the temperature today?
- [ ] 1. 50°F or below
- [ ] 2. 60°F
- [ ] 3. 70°F
- [ ] 4. 80°F
- [ ] 5. 90°F or above

00-0-08 What is the weather today?
- [ ] 1. Sunny
- [ ] 2. Partly Sunny/Partly Cloudy
- [ ] 3. Overcast
- [ ] 4. Rainy

The item asking about the Park Name (00-0-01) should be pre-filled. Mark the date you do the observation and your initials in the appropriate spots. Please remember to use leading zeroes when necessary (e.g. 01/05/2005 or TA01 or S01, etc.).”

Temperature (00-0-07 and 00-0-08) and weather should be estimated at the start of the observation session.
This form should be completed after all other DO forms have been done. However, you may note the presence of signs or specialty areas as you come upon them.

**V03 Can the park be accessed?**

If you can enter the park and move around freely, mark “yes”. If not, check the reason why not. If it is because the park is now housing FEMA trailers, write that in under option 4.

**V04 Is the park currently being used for other purposes?**

Answer this regardless of your response to V03. “Other purposes” refers to anything not usually done in a park. Mark all the responses that apply, even if you already wrote in “FEMA trailers” in V03.

![Figure 1. Park being used for other purposes (FEMA trailers)](image1)

![Figure 2. Park being used for other purposes (tents/campsites)](image2)

**V05 Rate the extent of the following visible park damage.**

Questions a-d ask only about damage that has occurred within the park boundaries that you can see with the naked eye. Specific examples are given next to each question. You will need to rate each item on a scale of 1 (no damage or NA) to 5 (severe). Recall that you are only looking for things that are obviously due to hurricane damage, which means you’ll have to make a judgement call and distinguish between ordinary trashiness/poor maintenance and actual damage from the hurricane.
Figure 3. Evidence of flooding in park (note flood lines)

Figure 4. Evidence of flooding in park (note flood lines)

Figure 5. Evidence of flooding in park (note dead tree)

Figure 6. Evidence of tree & landscaping damage (note angle of trees in background)
V06  How much hurricane debris or trash is visible within the park boundaries?

Again, distinguish between ordinary trash/poor maintenance and actual debris resulting from the hurricane.
V07 Does the park appear to be cleaned up or in the process of being cleaned/restored?

This question refers to be cleaned/restored from the ravages of Hurricane Katrina.

V08 Rate the extent of the following visible neighborhood damage.

Questions a-d ask only about damage that has occurred outside the park in the immediate neighborhood of the park. We define the immediate neighborhood of the park to be along the streets that border the park, so you will need to circle the outside perimeter of the park to make your assessment of these questions. Specific examples are given next to each question. You will need to rate each item on a scale of 1 (no damage or NA) to 5 (severe). Recall that you are only looking for things that are obviously due to hurricane damage, which means you'll have to make a judgement call and distinguish between ordinary poor maintenance and actual damage from the hurricane.

Figure 11. Wind damage to neighborhood buildings

Figure 12. Wind damage to neighborhood buildings

V09 How much hurricane debris or trash is visible in the neighborhood?

Again, distinguish between ordinary trash and actual debris or reconstruction debris resulting from the hurricane.

V10 Does the neighborhood have electricity?

Examples are given next to the question. You may ask people in the neighborhood.
Form: Overall Park
(Answer once all Target Areas and all Activity Areas have been completed)

This form should be completed after all other DO forms have been done. However, you may note the presence of signs or specialty areas as you come upon them.

01-A-01 What specialty areas are in the park?

Circle as many responses as apply. If there are others that are not listed, please note what they are in the appropriate spot (examples would be a fitness course, a museum, etc.).

01-A-03 Can the entire park be locked?

If the park is clearly not lockable (i.e. there is no fence or gate), mark “no”. Note that an actual padlock does not have to be present for the park to be lockable. We simply want to know whether access could be restricted.

Figure 13. Example of a lockable park.

01-A-04 thru 01-A-08 Questions regarding signs

Be on the lookout for the various signs as you complete the other observation forms.
*The start time should be recorded when you first begin the observation of the TA, and the finish time (which is on the last page of the TA packet) should be recorded after all the TA and associated Activity Area and Street questions have been answered.

WALK THE ENTIRE TARGET AREA DURING YOUR OBSERVATION. LOOK EVERYWHERE AND ASSESS ALL COMPONENTS OF THE TARGET AREA.

02-0-01 **Target Area #**

The ID # of the Target Area should be pre-filled. If not, take it from the maps you were given.

02-0-03 **Start Time**

The start time should be recorded when you first begin the observation of the TA.

02-0-05 **Able to access TA?**

If you are able to get inside the target area and walk around freely, mark “yes”. If the target area is locked and you cannot get inside, mark “no” and do the observation as best you can from the outside. Do not consider locked buildings or restrooms as being unable to access the TA.

02-A-01 **Can the entire TA be locked?**

If the Target Area is clearly not lockable (i.e. there is no fence or gate), mark “no”. Note that an actual padlock does not have to be present for the TA to be lockable. We simply want to know whether access could be restricted. Do not consider any buildings or restrooms in your assessment of lockability.
Form: Target Area - Esthetics & Condition

02-B-01 Rate the appeal of the view from within the TA.

Stand somewhere and look around. Base your rating on everything you can see, even if you see things not within the TA.

02-B-04 Rate the condition of the landscaping in the TA (based on the type of landscaping you think it is supposed to be).

Consider things like length of grass, drainage, holes, ant hills, pet waste, etc.

02-B-07 What sounds do you hear in the Target Area? (circle all that apply)

Note the predominant sounds you hear in the TA.

02-B-08 Rate the appeal of the sounds that you hear.

Rate the overall appeal of all the sounds you hear in the TA. Unpleasant sounds might consist of annoying noise such as construction, loud music, or traffic. Pleasant sounds might be natural sounds of birds or water.

02-B-10 How much litter is present in the TA?

Litter consists of small trash, not in a can, that can be picked up by an individual. Rate without looking inside trash cans.

Figure 14. Examples of litter in the TA.
02-B-11  How much trash is present in the TA?
Trash consists of large items that take an organized effort to dispose of. Rate without looking inside the trash cans.

Figure 15. Example of trash in the TA.

02-B-12  How much "risky" litter is visible in the TA?
Look inside the trash cans and look on the ground. Risky means anything that indicates risky behavior took place in the TA (e.g. alcohol containers, condoms, drugs, drug supplies, small Ziplocs, broken glass, etc.) It can either be in a trash can or not. Cigarette butts should NOT be counted as “risky” litter (contrary to logic) but should instead be counted as “litter.”

Figure 17. Example of Risky Litter (condom wrapper).

02-B-14  Are any trash cans in the Target Area overflowing?
An overflowing trash can has visible trash above the rim of the can and/or trash scattered around its base.

Figure 16. Another example of trash in the TA.

Figure 18. Example of Risky Litter (beer bottles).
Figure 19. Example of trash can that is full but NOT overflowing. Mark "No" (0).

Figure 20. Example of overflowing trash can. Mark "Yes" (1).

02-B-15 How much graffiti is visible in the Target Area?

Graffiti is any unauthorized writing or drawing on a public surface.

Figure 21. Example of graffiti in TA.

02-C-02 Rate the general condition of all the benches.

Here you must make a decision as to whether the benches belong more appropriately to the TA or to the associated Activity Area (such as a Playground). If the benches are specifically for this other Activity Area, they should be assessed there only.
Figure 22. Points may be deducted for chipped paint.

Figure 23. Even more points should be deducted for missing pieces, as this limits the functionality of the bench.

Form: Target Area - Bike Racks

02-D-02 How many bike racks are functional?

Functional is defined as "you would lock your bike to it."

Figure 24. Example of a Bike Rack.

Figure 25. Example of a Bike Rack.
Form: Target Area - Shelters

02-E-02 What is located under the shelters? (circle all that apply)

Figure 26. Example of a shelter (gazebo) with "Nothing" (0) beneath.

Figure 27. Example of a shelter with "Benches" (5) underneath.

Form: Target Area - Restrooms

02-F-02 How many of the restrooms gender-labeled?

Figure 28. Example of typical gender-labeling.
Figure 29. Example of an acceptable restroom (port-o-let) and acceptable gender-labeling.

02-F-04 Rate the general functionality of all the toilets in the restroom.

02-F-05 Rate the general functionality of all the sinks in the restroom.

Only go into the restroom for your gender. Flush each toilet and try the water for each sink.

02-F-06 Rate the general cleanliness of the restrooms.

02-F-06_5 Rate the overall condition of the restrooms.

Look at whether toilet seats are broken, paint or ceramic is chipped, missing toilet seats, handles, doors, broken or missing soap dispensers, etc.

Figure 30. Points deducted for both condition and cleanliness.

Figure 31. Points given for cleanliness and condition.

02-F-08 Rate the amount of graffiti in the restrooms.

Consider only graffiti inside the restroom. Graffiti that is located on the outside walls of the restroom is covered elsewhere.
02-G-02  What can you buy at the concession stand?

A concession stand is anything that sells food/drink or rents equipment. Look for any evidence, such as signs, that food or drink or equipment is sold or rented there.

Figure 32. Example of a concession stand.

Figure 33. Example of a concession stand.

02-I-02  Rate the functionality of the drinking fountains.

A drinking fountain is functional if water comes out in an adequate stream for drinking. Deduct points if the water only trickles out, necessitating a user to touch his mouth to the fountain. Also deduct points if the water comes out too high, meaning the user can easily get wet trying to drink from this fountain or the water stream extends beyond the basin.

02-I-03  Rate the general cleanliness of the drinking fountains.
Figure 342. Example of a drinking fountain. Points added for functionality and cleanliness.

Form: Target Area - Picnic Tables

02-J-02 Rate the general condition of all the picnic tables in the TA.

02-J-03 Rate the general cleanliness of the picnic tables in the TA.

Bear in mind that the tables are intended to be outdoors. They do not have to be in pristine condition to score a “5”. Look for food crumbs, stickiness, bugs, or other non-trash yet unclean items. Trash on the picnic tables is covered under the “litter” question.

Figure 35. Picnic table gets points for newness and cleanliness.

Figure 36. Deduct points for warped, splintered wood, chipped paint.
Figure 37. Deduct even more points for missing parts, as this limits the functionality of the picnic table.
Form: Target Area - Water Features

02-K-02 What type of water feature is it?

“Ponds/Lagoons” may have fountains in them, but they are not “Built Fountains.” “Built Fountains” are decorative, man-made structures.

Figure 38. Example of "Pond/Lagoon" with fountain (1).

Figure 39. Example of "Pond/Lagoon" without fountain (1).

Figure 40. Example of a "Built Fountain" (6).

Form: Target Area - Art/Monuments

02-L-02 Rate the general condition of the art/monuments in the TA.
Art or monuments can include any sculptures, decorative items, or flagpoles. Decorative fountains should NOT be counted under here. They should be counted as "water features."

Figure 41. Example of "Art/Monument".

Figure 42. Example of "Art/Monument".
Form: Target Area - Parking Areas

02-M-03  Is there a lighting source for the parking area?

The light must be able to specifically illuminate the parking area. Consider light posts or standards.

Form: Target Area - Park Staff

02-N-01  While you were in the TA, did you see any uniformed park workers?

Mark “yes” if you saw any types of uniformed workers (security guards, maintenance workers, etc.) at any time, while you were in the Target Area. “Uniform” can be interpreted liberally (badge, cap, t-shirt, etc.) – anything that tells you the person is working for the park.

Figure 43. Example of park staff.
Street (or road) is defined as one that carries public vehicular traffic. For each street, fill out a separate sheet.

The column on the left side of the table above should be pre-filled. If they are not, check your map or the nearest street sign.

03-A-01 What type of street is it?

A street that “borders” the park is one that is immediately touching the park edge and has to be crossed before entering the park. A street that “crosses” the park is a regular city street that carries traffic that happens to cut across the park. A street that is “within” the park is one that carries only park traffic.

03-A-02 How many lanes does the street have?

A lane can go only in one direction. Count lanes in both directions, so that a street with one lane going in one direction and another lane going in the opposite direction would have two lanes. Lanes are not always indicated with painted lines. Be alert to street signs and actual traffic to help you decide. Do not include turning lanes or neutral grounds. Do include streetcar lanes.

Figure 44. Example of a street with two lanes. Notice street sign indicating two-way traffic. (Mark "2-3 lanes").

Figure 45. Example of a street with 4 lanes and a neutral ground (or median). The other two lanes are not visible in the photo but are just to the right of the neutral ground here. (Mark "4-5 lanes")
Figure 46. Example of a street with 8 lanes. Do not include turning lane. Do include the two lanes in the neutral ground (median) for street cars. (Mark "6 or more lanes").

03-A-03 What traffic signals are present on the street? (circle all that apply)

Figure 47. Example of a "Crosswalk" (1).

Figure 48. Example of a "Flashing Light" (2).

Figure 49. Example of a "Stop Sign" (3).

Figure 50. Example of a "Traffic Light" (4).
03-A-04  What is the traffic volume of the street?

Pick one spot on the map and stand there. Using the second hand of your watch, count the number of cars that go by in one minute.

03-A-07  Rate the condition of the sidewalks.

Figure 51. Example of a sidewalk. Points given for smoothness of surface.

Figure 52. Example of a sidewalk. Points deducted for trip hazards and overgrowth.
03-0-06  Able to access Court?

If you are able to get inside the court and walk around freely, mark “yes”. If the court area is locked and you cannot get inside, mark “no” and do the observation as best you can from the outside.

03-B-02  What structures are present on these courts? (circle all that apply)

Circle all the structures that are present. Seating includes only bleacher-type seating for several people. Individual benches should be noted under the bench section on the Target Area form.

Figure 53. Example of "Tennis Court Nets" (1) and "Tennis Court Standards" (2).

Figure 54. Example of "Tennis Practice Wall" (3).
03-B-03  What is the intended use of this court area?

Check “multi-purpose” only when there is no obvious clue that court is for only 1 sport.
03-B-04 How many games can be played simultaneously on these courts?

This question is trying to get at size. Generally, one tennis or volleyball net indicates that 1 game can be played, 2 nets equals 2 games, and so on. If the court is for basketball, let 1 hoop equal ½ a game, 2 hoops equal 1 game, 3 hoops equal 1.5 games, 4 hoops equal 2 games, and so on.

03-B-05 Rate the condition of the surface of the courts.

Consider cracks, evenness, smoothness, trip hazards, drainage, etc.
Figure 62. Deduct points on condition of court surface for cracks.

Figure 63. Deduct points for surface unevenness, allowing standing water, and cracks.

Figure 64. Deduct points for scuff marks that haven't been swept (specific to this particular surface type).

03-B-06 Are the painted markings on the court still clearly visible?

Choose “no” if they are faded, chipped, or peeled away. Choose “yes” if they are still legible.
03-B-07  How much of the structures appear broken or missing on the courts?
Look for broken nets, missing hoops, etc. Consider whether the broken or missing piece is necessary in order to play the game.

Figure 67. Deduct points for missing basketball hoops (making court unusable for playing basketball).

03-B-08  Are there any flood lights on the court?
Look for light posts or light standards.
03-B-09  Can the court area be locked?

This would require a fence with a gate that could prevent people from entering. The presence of an actual lock is not necessary.
What is the difference between a Green Space and a Sports Field? A Sports Field is more obviously intended for use in organized sports games either due to its shape or contents; it is likely not to have any trees or other obstacles in it. A Green Space is more free form, with no obvious intended organized sports use; it may have trees within it; it may be any shape or size.

03-0-09  Able to access Green Space?

If you are able to get inside the green space and walk around freely, mark “yes”. If the green space area is locked and you cannot get inside, mark “no” and do the observation as best you can from the outside.

03-C-01  Describe the surface area of the Green Space/Open Area.

03-C-02  Rate the condition of the surface of the green space.

Consider upkeep such as length of grass, drainage, etc.

Figure 69. Surface area of Green Space is "Mostly Grass" (1). Deduct points on condition of surface due to length of grass.

Figure 70. Surface area of Green Space is "Mostly Grass" (1). Give points on condition of surface due to shortness of grass.
Path is defined as any kind of walking trail or running track located within a park. It can be paved or not.

If you are able to get on the path, mark “yes”. If the path area is locked and you cannot get inside, mark “no” and do the observation as best you can from the outside.

Measure the width of the path or path segment.

Use a tape measure. If the width varies within the TA, measure in an area with the predominant width.

Figure 71. Measuring the width of a path.
03-D-03  What is the surface of the path or path segment made of?

Figure 72. Example of path with a "Smooth" (1) surface. Note that a running track is a type of path.

Figure 73. Example of path with a "Dirt" (3) surface.

Figure 74. Example of path with "Particulate" (2) surface.

03-D-04  Rate the condition of the surface of the path or path segment.

Look for evenness, smoothness, etc.

03-D-05  Is there any indication that the path or path segment is divided for different uses?

This is probably most often indicated with painted markings on the path or signs specifying separate areas for bikers/walkers, etc.
Figure 75. Path markings separate bikers from walkers.

Figure 76. Divided path.

**03-D-06** Does vehicular traffic cross or intersect the path or path segment?

Answer "yes" if roads bisect the path/segment (or the path/segment crosses a road).

Figure 77. Example of "Vehicular traffic intersects path."
Form: Playground

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**03-0-15 Able to access Playground?**

If you are able to get on the playground, mark “yes”. If the playground area is locked and you cannot get inside, mark “no” and do the observation as best you can from the outside.

**03-E-01 What type of playground equipment is present? (circle all that apply)**

Note that a “Slide” may be attached to a “Climbing Apparatus.” Each piece should still be marked separately.

Figure 78. Example of a "Swing Set" (1).

Figure 79. Example of "Slide" (2) and "Spring Rocker" (6).
Figure 80. Example of a "Climbing Apparatus." (3)

Figure 81. Example of “Slides” (2) attached to a “Climbing Apparatus” (3) (circle both).

Figure 82. Example of a "Merry-go-round" (4).

Figure 83. Example of a "See-Saw" (5).

Figure 84. Example of "Marked Blacktop Games" (7).

Figure 85. Example of "Marked Blacktop Games" (7).
What type of surfacing is under the play equipment? (circle all that apply)

Check only surface that is actually underneath the play equipment. Do not include surface in the general area. “Rubber tiles” and “Unitary Synthetic Surface” feel slightly spongy and have some “give” to them.

Figure 86. Example of "Unitary Synthetic Surface" (4) surrounded by turf (dirt). Assess only the surface that is directly underneath the play equipment. (Mark (4) only.)

Figure 87. Example of "Loose Fill" (3) surfacing (shredded mulch).

Figure 88. Example of "Rubber tile" (4) surfacing.

Figure 89. Example of "Unitary Synthetic Surface" (4).
03-E-03 If surfacing is a loose material, how deep is it?

Take an average spot and insert a ruler to measure depth.

Figure 90. Checking the depth of loose material.

03-E-04 Rate the condition of the playground surface.

Consider consistent depth, wear and tear, presence of roots, rocks, and other environmental hazards.

03-E-05 How much deterioration or corrosion is evident on the play equipment?

Look for things like chipped paint on equipment surface, rusted pieces, exposed hard surfaces.

Figure 91. Deduct points for corrosion.

03-E-06 On average, how much appears broken or missing on the play equipment?

This includes things like equipment components, handholds, guardrails, swing seats, benches, etc.
03-E-07a Are there any places at all over 6 ft high (>1.8 m)?

Check the highest point a child could stand on (assume a kid will climb on anything accessible!). Use a tape measure, and count platforms, tops of slides, ladder rungs, etc.

03-E-12 Are there signs specifying rules or guidance for use of the playground?

Look for more than just the name of the playground.
What is the difference between a Sports Field and a Green Space? A Sports Field is more obviously intended for use in organized sports games either due to its shape or contents; it is likely not to have any trees or other obstacles in it. A Green Space is more free form, with no obvious intended organized sports use; it may have trees within it; it may be any shape or size.

03-0-18   Able to access Sports Field?

If you are able to get on the field, mark “yes”. If the field area is locked and you cannot get inside, mark “no” and do the observation as best you can from the outside.

03-F-01   What structures are present on this field? (circle all that apply)

Circle all the structures that are present. Seating includes only bleacher-type seating for several people. Individual benches should be noted under the bench section on the Target Area form.
Figure 89. Example of a “Fence around Home Plate” (3)

Figure 90. Example of "Dugouts" (4) and "Seating (5"

Figure 91. Example of "Batting Cage" (6)

Figure 92. Example of "Scoreboard" (7)
What is the intended use of this field? (check all that apply)

Answer this question as best you can. Circle “multi-purpose” when there is no obvious clue that field is for only one sport. Circle “can’t tell” if you cannot tell what type of field this is.

Rate the condition of the field

Consider evenness of the surface, length of the grass, size of bare patches, etc. Grass that is taller than the top of your shoe is considered long. A field in “Excellent” condition would have mowed grass, smooth/even surface, straight boundaries, no rocks, good drainage. A field in “Poor” condition would have a rough or uneven surface, holes, poor drainage, long grass. You must walk on the field before assessing it.

Points deducted for length of grass and unevenness of surface.

Points given due to length and maintenance of grass and smooth surface. Note absence of holes.
**Figure 957. Points deducted for obstruction in field.**

**03-F-05**  
Are there sources of light that would allow the field to be used at night?

Look for light posts, light standards, flood lights, etc.

**Figure 98. Example of field lighting**

**03-F-06**  
Can the sports field be locked?

This would require a fence with a gate that could prevent people from entering. The presence of an actual lock is not necessary.
After you have completed observation of the TA and its related Activity Areas, complete the rest of the table below with the numbers of forms for this TA. Don’t forget to mark your finish time.

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Finish Time*
02-0-04

*Mark your finish time.